The Review of Austrian Economics

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Introductory Editorial

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Demand calls forth supply in the world of economic journals as much as in the "real" economic world. The proliferation of new journals since World War II has been a function of the increasing number of Ph.D.s and of the acute exigencies of "publish or perish." But there is another category of new journals more relevant to this one: periodicals that function as a nucleus and a sounding board for schools of economic thought partially or wholly outside the prevailing neoclassical paradigm.

The *Review of Austrian Economics* arrives in just this spirit. We believe that the Austrian tradition, the Austrian paradigm, is only imperfectly represented within the present neoclassical synthesis, and that the best way to rectify this situation is with the creation of a new review. Hence, the *Review of Austrian Economics*.

The *Review of Austrian Economics* has two broadly conceived objectives: (1) to promote the development and extension of Austrian economics and (2) to promote the analysis of contemporary issues in the mainstream of economics from an Austrian perspective.

The first objective is fundamental. The existence of the *Review of Austrian Economics* will resolve some dilemmas now faced by Austrian-oriented researchers who attempt to publish in the mainline journals. Articles that simply assume a familiarity on the part of the profession with methodological norms and theoretical developments within the Austrian tradition are unlikely to be published; the profession, by and large, has no such familiarity. Articles that devote substantial space to stating and defending the methodological norms and retracing the theoretical development are also unlikely to be published; they are seen, and correctly so, as unoriginal. Articles whose backgrounds are extensive in absolute terms but brief in relation to the remainder of the article do not constitute a workable compromise; they are rejected on the basis of length. These constraints do not totally preclude the publication of Austrian-oriented articles in mainline journals, but they make such events much more difficult. The *Review of Austrian Economics* will allow the praxeologically oriented researcher to assume a certain

familiarity with the Austrian literature on the part of its readers. This will allow scholars to make an original contribution without requiring that they reiterate material already available.

The second objective, creating a dialog between Austrian and non-Austrian economists, is essential to the long-term success of the *Review of Austrian Economics*—and of Austrian economics itself. The first objective, if pursued by itself, could easily lead to a self-imposed isolation of the Austrian school. Contemporary issues (the national debt, monetary reform, industrial policy, for example) are common denominators linking the Austrian school with other schools of thought. By providing an Austrian analysis of these issues and contrasting it with more orthodox analyses, the contributors to the *Review of Austrian Economics* can build bridges—two-way bridges—between the Austrian and other schools. Articles that fulfill this second objective will attract a wider readership and will enlarge the number of potential contributors of articles to the *Review of Austrian Economics*. Likewise, articles of this type may pave the way for similar publications in the mainline journals. The long-term success of the *Review of Austrian Economics* will thus depend upon the contributors' ability and willingness to publish in both the *Review of Austrian Economics* and the mainline journals.

We propose to explore the rich tapestry of the Austrian tradition. But we also propose to help build and refine the great edifice of Austrian theory itself, as well as to apply that theory to the events of human history, past and present. We are therefore interested in articles that build Austrian theory, explore its traditions and its practitioners, or apply the theory to historical events or situations.

It is one of our prime purposes to help nurture and expand the number and the output of Austrian economists in the United States and elsewhere, but we intend to assess each potential contribution without regard to the author's credentials as an Austrian economist. Any article that helps to build or explore aspects of Austrian economics will be welcome, whether or not the author considers himself or herself an Austrian in any sense.

We have also been appalled that the pressures of demand upon supply have led inexorably to shorter and shorter articles in the journals. As an annual, we can afford to relax greatly the requirements of space. We welcome articles short, medium-sized, or long to the point of being virtual monographs; the overriding consideration is, as it should be, quality and not length.

Finally, we must define what we mean by Austrian

economics. It obviously has nothing to do with the economy of Austria or even with economists who happen to have lived or worked in that country. It is noncontroversial that Austrian economics means that body of theory founded by Carl Menger in 1871 in his path-breaking *Principles of Economics*. But Austrian economics is not a monolith, and there have been many competing and even clashing traditions and schools, each of which claims Carl Menger as its founder. The *Review of Austrian Economics* hopes to play a part in building that theory as well as in calling attention to the importance of that structure.

The *Review of Austrian Economics* will publish manuscripts dealing with methodology, Austrian theory, business cycles, history of thought, monetary theory, microeconomics, public policy, and indeed with all traditional economic areas. We define our interests, concerns, and perspective in the broadest possible manner. The *Review* is to be inclusive of all strands of Austrian economics, such as market process, subjectivism, emphasis on entrepreneurship, and praxeology. We most certainly welcome articles incorporating non-Austrian and even anti-Austrian viewpoints, provided only that they are of relevance to the Austrian perspective, broadly understood.

Editorial: The Inflationary Chaos Ahead

Henry Hazlitt

The monetary outlook for the United States—and for the world—was never darker than it is today. The federal budget is unbalanced by some $200 billion a year, and the prospect of getting it back to a balance even five years from now is very dim. At the moment of this writing, the president and the Senate majority leadership have worked out a courageous spending reduction schedule for fiscal year 1986, but congressional Democrats have decided to oppose this plan even if a Senate majority agrees to it, on the ground that it lacks "compassion." Huge deficits will probably continue.

What is happening in the United States is happening in most other countries. Governments have practically all adopted the welfare state, and the political forces within each country seem to ensure its continuance. Scores of pressure groups, from people on unemployment insurance to people on Social Security, insist on the continuance of the payments they have become accustomed to, and on their automatic increase with every increase in the cost of living. But this means that the greater the past or present inflation, the greater must be future inflation. It was estimated in the *New York Times* on April 28, 1985, that in Israel inflation was running at about 1,000 percent a year. It was reported the day before that the inflation in Argentina was expected to reach an annual rate of more than 900 percent that month.

And so it goes. While there is no single source, to my knowledge, where one can find a day-to-day calculation of the latest annual or monthly rates of inflation of each of the world's principal currencies, a mere listing from the daily foreign exchange table of the rates at which some of them now exchange for a U.S. dollar (which is itself depreciating against commodities) indicates what has been happening. A dollar (as of April 26, 1985) bought 4,900 Brazilian cruzeiros, 1,186 Indonesian rupiahs, 932 Israeli shekels, 2,001 Italian lire, 253 Japanese yen, 246 Mexican pesos, 8,688 Peruvian soles, and 495 Turkish lire.

It may be thought that what happens to the currency in other countries is irrelevant to the prospects for future inflation in the United States or chances for returning to a gold standard. But it is not so. Bad currencies depress better currencies.

This was illustrated by the Bretton Woods system set up in 1944 and 1945. The framers of that system, after explicitly permitting not only devaluations at any time by individual countries, but also *uniform* devaluations of member currencies by agreement, paid obeisance to the gold standard by providing that one country, the United States, would keep the dollar convertible into a fixed weight of gold and accept other currencies (at their official rates) in exchange for the dollar.

When the dollar was thrown off gold on August 15, 1971, the result was blamed on President Nixon, who made the announcement. Mr. Nixon must of course bear part of the blame, but his was far from the sole guilt. On the day he stopped gold payments, U.S. gold reserves amounted to only about 2 percent of outstanding currency and demand and time bank deposits. There was only $2.23 in gold to redeem every $100 of U.S. paper promises.

But this takes no account of outstanding Eurodollars or even of the outstanding currency and bank deposits of all the foreign signatories to Bretton Woods (who were entitled under the agreement to turn in their currencies for conversion into dollars or gold). The ultimate gold reserves on which the conversion burden could legally fall under the system must have been only some fraction of 1 percent of the total paper obligations against them. The Bretton Woods system was inherently impossible to maintain. Even if Mr. Nixon had not closed the gold window on August 15, 1971, he would probably have been forced to close it a week or so later for lack of further gold reserves to pay out.

What in 1971 was a run on gold has become in 1986 a run on the dollar. In terms of its exchange rate against goods, the dollar continues to depreciate. But it is considered the world's least unsafe currency of which there is a substantial supply. Therefore, businesspeople and wealthier citizens of foreign countries buy it as an international currency to do business with each other and as a store of value—or at least a better hedge against inflation than their own currencies. This temporarily has increased the demand for dollars and therefore their exchange rate against other currencies. But it has also tended to increase the supply of dollars further—partly to meet the increased demand, and partly because the increased supply of dollars is not

immediately or proportionately reflected in the inflation rate.

But the process is ominous. It means that, in a world in which every currency is on a paper basis, the citizens of the countries whose currencies are depreciating fastest will try to exchange them for a major currency that is depreciating least, and therefore make the stronger currency in turn tend to depreciate faster. The worst will pull down the better.

I wish I could foresee a stopping point to this process—a point that would at least lead to the emergence of political responsibility. I regret that I cannot envisage this now. I cannot imagine how democratic politicians, with their eyes fastened on the next election two years or two months away, can bring themselves to substantially reduce, not to whisper abolish, most of the handouts to pressure groups that now make up the welfare state.

One more point needs to be clarified. There is only one workable currency reform—a return by all the leading economic nations to the old-fashioned gold standard. There are no trick reforms that would "economize" the use of gold. Such reforms, as economists have found, merely lead to renewed inflation, and eventually break down. But there is no use even in talking about a return to a gold standard until the United States has abolished the deficit in the federal budget and has kept it balanced or overbalanced for a couple of years.

When will the world learn, after the countless credit booms and busts throughout history, after the American Continentals of the 1776 Revolution, the French assignats of 1789, the German mark disaster of 1918–23, and the world monetary disorder promoted by the Bretton Woods agreement, that inflation is not the main remedy for economic ills but is instead the main cause of them?

Why Subjectivism?

Leland Yeager

Insights and Exaggerations

Economists of the Austrian school put special emphasis on subjectivism. This article reviews why subjectivist insights are important, but it also warns against exaggerations. The latter part, while briefer, particularly warrants attention in Austrian circles.

Various writers define subjectivism in ways that, though not necessarily inconsistent, do seem quite different. Empirical concepts (as opposed to mathematical concepts, like "triangle") necessarily have an "open texture" (Waismann 1965). An open-textured concept just cannot be defined so precisely and comprehensively as to rule out the possibility of an unforeseen situation or case or example that would require modifying the previously framed definition. I feel no duty, then, to start with a definition. Instead, the meaning of subjectivism will emerge from the topics covered and from contrasts with non-subjectivist attitudes.

Materialism versus Subjectivism in Policy

Subjectivist insights contribute to positive economics—to understanding how the world works (or would work with circumstances changed in specified ways). They do not bear primarily on policy. As an expository device, however, it is convenient to begin by considering subjectivism being applied—or being ignored—in policymaking.

Perhaps the broadest subjectivist insight is that economics deals with human choices and actions, not with mechanistically dependable relations. The economy is no machine whose "structure" can be ascertained and manipulated with warranted confidence. Economics knows nothing comparable to Avogadro's number, atomic weights and numbers, the speed of light in a vacuum, and similar constants of nature (Mises 1963, p. 55). Or if such constants do exist, an economist could earn a great reputation by demonstrating a few of them. No amount of

cleverness with econometrics can make the nonexistent exist after all.

One reason why no enduring "structural parameters" characterize the economic system is that the way people behave in markets, as in other aspects of life, depends on their experiences and expectations and on what doctrines they have come to believe. (Here is one area of overlap between Austrian economics and the rational-expectations school currently, or recently, in fashion.)

The circumstances mentioned are inherently changeable. One implication warns against policies whose success presupposes unrealistic kinds of degrees of knowledge. It warns against overambition in attempting detailed central control of economic life.

Subjectivist economics points out, for example, what is lost when policy makes simplistic distinctions between necessities and luxuries or when, unlike voluntary transactions, policy fails to take account of subtle differences between the circumstances and tastes of different people. (My discussion passes over personal rights, not because they are unimportant but only because my present topic is, after all, rather different.)

Examples abound, in Third World countries and elsewhere, of attempts to conserve scarce foreign-exchange earnings for "essentials" by exchange controls, multiple exchange rates, import quotas, and selective import duties designed to limit or penalize the waste of foreign exchange on "luxury" imports and other "nonessential" uses.

The arguments offered for such controls, like arguments for consumer rationing in wartime, are not always sheer nonsense. But subjectivist considerations severely qualify them. It is impossible to make and implement a clear distinction between luxuries and essentials. Suppose that a government tightly rations foreign exchange for pleasure cruises and travel abroad but classifies oil as an essential import. Some of the oil may go for heating at domestic resorts operating on a larger scale than if the cruises had not been restricted. The restrictions may in effect divert factors of production from other activities into providing recreation otherwise obtainable at lower cost through foreign travel. Because of poor climate at home, it may well be that the marginal units of foreign exchange spent on imported oil go to satisfy wants of the same general sort—while satisfying them less effectively—as wants otherwise satisfied by foreign travel. Restricting travel and supposedly nonessential imports is likely to

promote imports of their substitutes and also divert domestic and imported resources or materials into home production of substitutes. The diversions may also impede exports that earn foreign exchange.

It is particularly dubious to try to distinguish between essential and frivolous imports according to whether they serve production (or "economic growth") or mere consumption. All production supposedly aims at satisfying human wants, immediately or ultimately. Producing machinery or building factories is no more inherently worthy than producing restaurant meals or nightclub entertainment, for the machinery or factories are pointless unless they can sooner or later yield goods or services that do satisfy human wants. To favor production-oriented (or export-oriented) imports over consumption-oriented imports is to prefer a roundabout achievement of ultimate consumer satisfactions to their more direct achievement merely because of the greater roundaboutness. It is to confuse ends and means.

People obtain their satisfactions in highly diverse ways (even altruistic ways). Some policymakers evidently do not understand how the price system brings into play the dispersed knowledge that people have about their own tastes and circumstances. A journalist illustrated such misunderstanding when badgering Alan Greenspan, then Chairman of the Council of Economic Advisers, with questions about whether business firms would continue producing essential goods when frivolous goods happened to be more profitable. As Greenspan properly replied (in Mitchell 1974, pp. 74–76), people differ widely in their tastes. Some choose to buy extraordinary things and deliberately deprive themselves of other things generally counted as necessities.

One might conceivably—which is not to say conclusively—urge controls as correctives for specific market distortions. Barring such identified distortions, the idea naturally occurs to subjectivist economists of letting ultimate consumers appraise "essentiality." Sweeping philosophical comparisons are unnecessary. People can act on their own comparisons of the satisfactions they expect from additional dollar's worths of this and that. Consumers and businessmen can judge and act on the intensities of the wants that various goods can satisfy, either directly or by contributing to further processes of production.

Standard theoretical reservations about this suggestion—standard arguments for government discriminations in favor of

some and against other particular goods and services—invoke the concepts of externalities, of merit wants and goods, and of income redistribution. Yet how can policymakers be confident that supposed externalities are genuine and important, that supposed merit wants really deserve cultivation, or that discriminating among goods will accomplish the desired redistribution of real income? Any one of many goods, considered by itself, might seem deserving of special favor; yet how *relatively* deserving different goods are may remain highly uncertain, particularly when no one knows just how severely the diversion of resources into particular lines of production will impair production in other lines that might even be more meritorious by the policymaker's criteria. (Tunnel vision is a failing of policymakers not thoroughly familiar with the idea of general economic interdependence.)

More fundamentally, particular goods do not possess qualities deserving special consideration globally, or by their very nature. On the contrary, usefulness or desirability is a relation between things and human wants. The usefulness of something—specifically, its marginal utility—is the smaller the more abundant the thing is. Ideally, decisions about adjusting quantities of various things should consider their usefulness *at the margin*. It is easy to imagine circumstances in which an additional dollar's worth or an additional ounce of penicillin or polio vaccine would contribute less to human satisfaction than an additional unit of orchids.

The concept of priorities does not properly apply in the contexts considered here. For the reasons mentioned, and also in view of how the political process works and of ample experience with controls, it is unrealistic to expect the government to choose "social priorities" reasonably. Consider, for example, the botch of energy policy, including the long record of subsidizing energy consumption in travel and transport (through the underpricing of road and airport facilities) and also including tax exemptions and subsidized loans granted to rural electric cooperatives, even while government officials plead for energy conservation.

Policies adopted or advocated during the energy crises of 1974 and 1979 betray ignorance of subjectivist insights. Examples are rationing of gasoline not so much by price as by the inconvenience and apprehension of having to hunt around for it and wait in long lines to buy it, or being allowed to buy gasoline only on odd- or even-numbered days according to one's license-plate number. A former chairman of Inland Steel

Company (Joseph L. Block in Committee for Economic Development in 1974, pp. 79–80) suggested requiring each car owner to choose one day of the week when he would be forbidden to drive. That prohibition, enforced with appropriate stickers, would supposedly have eliminated some needless driving and encouraged use of public transportation. Another example was a decision by the California Public Utilities Commission banning natural-gas heating of new swimming pools (Charlottesville, *Daily Progress*, 29 February 1976, p. E11).

Such measures and proposals underrate the value of freedom and flexibility. Arbitrary measures burden some people lightly and others heavily because different people's lives afford different scopes of substituting away from the restricted consumption and make advance scheduling of activities difficult and unrestricted flexibility important in widely differing degrees. In unrestricted voluntary transactions, by contrast, people can allow for such differences.

A narrowly technological outlook is often linked with puritanical moralizing. (I am reminded of my maternal grandmother, who used to bewail the waste of using a teabag only once if it could be made to serve twice and of using and washing a large plate if the food could be crammed onto a small plate.) Recovery techniques left too much oil and gas in the ground, natural gas on the continental shelf was flared, and the prevailing practice in coal mining left half of a seam in the ground merely because it was needed there as a supporting column or because getting it all out was too expensive—so went one complaint (Freeman 1974, pp. 230–232). Energy has been wasted by "too little" insulation of buildings.

Yet so-called waste was probably sensible at the lower energy prices of the past. There can be such a thing as too much conservation; for example, producing aluminum for storm windows installed under tax incentives even consumes energy in other directions. Ample heat and air conditioning brought comfort, and fast driving saved valuable time. Not having to concentrate on ferreting out ways to conserve energy saved mental capacity for other purposes. Now, at today's higher prices, a dollar spent on energy no longer buys as much comfort or saves as much time or thought as before; and people respond accordingly. Conceivably, of course, the energy prices of the past, distorted downward by interventions, may have led people to consume more energy than they would have done at free-market prices; but if so, the specific distortions should have been

identified and addressed. Moralizing about ways of consuming less was off the track.

Such moralizing almost regards waste as something perpetrated only with material resources, not with people's time or comfort or peace of mind. Ironically, this strand of materialism sometimes occurs among people who announce Galbraithian scorn for the alleged materialism of the affluent society. Another apparent strand sometimes found in the attitude of such people is self-congratulation on heroic hard-headedness in recognizing necessary austerities. (Speaking at a conference in Beverly Hills on 26 April 1975, Senator Gaylord Nelson welcomed the challenge of helping to create the new and simpler lifestyles of the future.)

Materialistic energy-conservation proposals illustrate a kind of thinking related to what F.A. Hayek (1952) has called *scientism*. It is something quite different from science or the scientific outlook. A full definition is unnecessary here, but one aspect is the feeling that results somehow do not count unless they have been deliberately arranged for. A person with the scientistic attitude does not understand how millions of persons and companies, trading freely among themselves, can express and arrange for satisfying the wants they themselves consider most intense. He does not appreciate self-adjusting processes, like someone's decision to forgo a gas-heated swimming pool, or any pool at all, in view of the prices to be paid. He assumes that a grandmotherly state must take charge, and he performs feats of routine originality in thinking of new ways for it to do so—as by requiring that cars get 30 miles to the gallon, by imposing standards for building insulation, or by banning pilot lights in gas appliances. Tax gimmicks and ideas are a dime a dozen—incentives for storm windows and solar heating and the plowback of profits into oilfield development and what not. The current, or recent, vogue for partial national economic planning under the name of "industrial policy" provides further examples.

Subjectivist insights illuminate the issue of the military draft. (For early discussions by University of Virginia Ph.D. graduates and graduate students, see Miller 1968.) Many persons have advocated the draft on the grounds that an all-volunteer force is too costly. They understand cost in an excessively materialistic and accounting-oriented way. In truth, costs are subjective—unpleasantnesses incurred and satisfactions forgone—in keeping down monetary outlays, the draft conceals part of the costs and shifts it from the taxpayers being defended to the

draftees compelled to serve at wages inadequate to obtain their voluntary service. Furthermore, the draft increases total costs through inefficiency. It imposes unnecessarily large costs on draftees who find military life particularly unpleasant or whose foreclosed civilian pursuits are particularly rewarding to themselves and others. At the same time it wastes opportunities to obtain relatively low-cost service, meaning service at costs subjectively appraised as relatively low, from men who happen to escape the draft but would have been willing to serve at wages below those necessary to obtain voluntary service from men in fact drafted. The opposite method—recruiting the desired number of service men and women by offering wages adequate to attract them as volunteers—brings to bear the knowledge that people themselves have of their own abilities, inclinations, and alternative opportunities. So doing, the market-oriented method holds down the true, subjectively assessed, costs of staffing the armed forces. (Of course, considerations in addition to these also figure in the case against the military draft.)

Subjectivist insights help one understand why compensation at actual market value for property seized under eminent domain probably will not leave the former owner as well off as he had been. His having continued to hold the property instead of having already sold it suggests that he valued it more highly than the sales proceeds or other property purchasable with those proceeds.

Neglect of subjectivism is central to the fallacy of "comparable worth." According to that doctrine, currently fashionable among feminists and interventionists, the worth of work performed in different jobs can be objectively ascertained and compared. People performing different jobs that are nevertheless judged alike, on balance, in their arduousness or pleasantness, their requirements in ability and training, the degrees of responsibility involved, and other supposedly ascertainable characteristics should receive the same pay; and government, presumably, should enforce equal pay. Formulas should replace wage-setting by voluntary agreements reached under the influences of supply and demand.

This idea ducks the questions of how to ration jobs sought especially eagerly at their formula-determined wages and how to prod people into jobs that would otherwise go unfilled at such wages. It ducks the questions of what kind of economic system and what kind of society would take the place of the free-market system, with its processes of coordinating decentralized

voluntary activities. (Though writing before comparable worth became a prominent issue, Hayek, 1960, chapter 6, aptly warned against displacing market processes by nonmarket assessments of entitlements to incomes.) The comparable-worth doctrine neglects the ineffable individual circumstances and subjective feelings that enter into workers' decisions to seek or avoid particular jobs, employers' efforts to fill them, and consumers' demands for the goods and services produced in them. Yet wages and prices set through market processes do take account of individual circumstances and personal feelings (a point I'll say more about later on).

Subjectivist economists recognize the importance of intangible assets, including knowledge, a kind of "human capital." They recognize the scope for ingenuity in getting around government controls of various kinds, whereas the layman's tacit case for controls involves a mechanistic conception of the reality to be manipulated, without due appreciation of human flexibility. Controls, and responses to them, destroy human capital by artificially hastening the obsolescence of knowledge; they impose the costs of keeping abreast of the artificially changing scene and divert material and intellectual resources, including inventiveness, from productive employments. Credit-allocation measures and other controls on financial institutions, for example—even reserve requirements and interest-rate ceilings—have bred innovations to circumvent them. Managers have to be trained and other start-up costs borne for new institutions and practices, and customers must spend time and trouble learning about them. Price and wage controls and energy-conservation rules provide further illustrations of such wastes.

Arbitrariness and unfairness figure among the costs of controls intended to buck market forces. As controls become more comprehensive and complex, their administrators are less able to base their decisions on relatively objective criteria. Bureaucratic rules become more necessary and decisions based on incomplete information less avoidable. Multiplication of categories entitled to special treatment invites the pleading of special interests. Even morality, another intangible asset, is eroded.

The complexity of detailed monitoring and enforcement suggests appealing for voluntary compliance, compliance with the spirit and not just the letter of the regulations. (Controls over foreign trade and payments for balance-of-payments purposes,

such as President Johnson attempted in the mid-1960s, provide still further examples; see Yeager 1965.) Whether compliance is avowedly voluntary, or whether ease of evasion makes compliance voluntary in effect, such an approach tends to penalize public-spirited citizens who do comply and gives the advantage to others. Exhorting people to act against their own economic interest tends to undercut the signaling and motivating functions of prices. How are people to know, then, when it is proper and when improper to pursue economic gain? To exhort people to think of compliance as in their own interest when it plainly is not, or to call for self-sacrifice as if it were the essence of morality, is to undercut the rational basis of morality and even undercut rationality itself.

A kind of perverse selection results. Public-spirited car owners who heed appeals for restraint in driving thereby leave more gasoline available, and at a lower price than otherwise, to less public-spirited drivers. Sellers who do comply with price ceilings or guidelines must consequently turn away some customers unsatisfied, to the profit of black-marketeers and other less scrupulous sellers. Eventually such effects become evident, strengthening the idea that morality is for suckers and dupes.

Subjectivists know better than to erect efficiency, somehow conceived, into the overriding criterion either of particular processes or institutions or of entire economic systems. The principle of comparative advantage discredits the idea that each product should necessarily be produced wherever it can be produced most efficiently in the technological sense. No presumption holds, furthermore, that any particular line of production necessarily should be carried on in the technologically most advanced way; for the resources required in such production are demanded by other industries also, where they may well contribute more at the margin to consumer satisfactions, as judged by what consumers are willing to pay.

Efficiency in the sense of Pareto optimality is often taken as a criterion of policy. Pareto efficiency is indeed a useful concept in the teaching and study of microeconomic theory. It is useful in contemplating outcomes of the market process in the form of particular—but abstractly conceived—allocations of resources and goods. Economists seldom if ever face an occasion or opportunity to appraise concrete, specific allocations, in the real world. As Rutledge Vining properly emphasizes, legislators and their expert advisors necessarily are choosing among alternative sets of legal and institutional constraints rather than among

alternative specific results or allocations. (See Vining 1985 and Yeager 1978.) Such constraints are rules of the game within which people strive to make the most of their opportunities amidst ceaseless change in wants, resources, and technology. The very point of having rules and institutions presupposes their having a certain stability and dependability, which would be undermined by continual efforts to make supposedly optimal changes in them.

What is useful in policy discussions, then, is not the supposed benchmark of Pareto efficiency but rather comparison of what alternative sets of rules add up to in terms of alternative economic and social systems. If we must have a standard against which to appraise reality, we might well adopt the view of a competitive market economy as a collection of institutions and practices for gathering and transmitting information and incentives concerning not-yet-exhausted opportunities for gains from trade (including "trade with nature" through production or rearrangements of production).

Knowledge and Coordination

Subjectivists recognize the many kinds of information that market prices and processes bring to bear on decisions about production and consumption. These kinds include what F.A. Hayek (1945) called "knowledge of the particular circumstances of time and place," knowledge that could hardly be codified in textbooks or assembled for the use of central planners, knowledge that can be used, if at all, only by numerous individual "men on the spot." It includes knowledge about all sorts of details of running business firms, including knowledge of fleeting local conditions. It includes what people know about their own tastes and particular circumstances as consumers, workers, savers, and investors. Subjectivist economists recognize how such factors not only underlie the prices that consumers are prepared to pay for goods but also underlie costs of production.

Each consumer decides how much of each particular good to buy in view of the price of the good itself, the prices of other goods, his income and wealth, and his own needs and preferences. Subject to qualifications about how possible and how worthwhile precise calculation seems, he leaves no opportunity unexploited to increase his total satisfaction by diverting a dollar from one purchase to another. Under competition, the price of each good tends to express the total of

the prices of the additional inputs necessary to supply an additional unit of that good. These resource prices tend, in turn, to measure the values of other marginal outputs sacrificed by diversion of resources away from their production. Prices therefore tell the consumer how much worth of other production must be foregone to supply him with each particular good. The money values of forgone alternative production tend, in turn, to reflect consumer satisfactions expectedly obtainable from that foregone production. (I say "reflect"—take account of—in order not to claim anything about actual measurement of what is inherently unmeasurable. I speak only of tendencies, furthermore, for markets never fully reach competitive general equilibrium.)

With prices bringing to their attention the terms of choice posed by the objective realities of production possibilities and the subjective realities of other persons' preferences, consumers choose the patterns of production and resource use that they prefer. Their bidding tends to keep any unit of a resource from going to meet a less intense willingness to pay for its productive contribution (and thus the denial of a more intense willingness). Ideally—in competitive equilibrium, and subject to qualifications still to be mentioned—no opportunity remains unexploited to increase the total value of things produced by transferring a unit of any resource from one use to another. Changes in technology and consumer preferences always keep creating such opportunities afresh, but the profit motive keeps prodding businessmen to ferret them out and exploit them.

To determine how resources go into producing what things in what quantities, consumers need freedom to spend their incomes as they wish, unregimented by actual rationing. But they need more: opportunities to make choices at unrigged prices tending to reflect true production alternatives.

We could speak then of "consumers' sovereignty," but the term is a bit narrow. Insofar as their abilities permit, people can bring their preferences among occupations as well as among consumer goods to bear on the pattern of production. In fact, investors' preferences, including notions about the morality and the glamor of different industries and companies, also have some influence; and we might speak of "investors' sovereignty" as well. (See Rothbard 1962, p. 452, n. 12, and pp. 560–562 on what Rothbard calls "individual sovereignty.")

Suppose that many people craved being actors strongly enough to accept wages below those paid in other jobs requiring

similar levels of ability and training. This willingness would help keep down the cost of producing plays, and cheap tickets would draw audiences, maintaining jobs in the theater. Suppose, in contrast, that almost everyone hated to mine coal. The high wages needed to attract miners would enter into the production cost and price of coal, signaling power companies to build hydroelectric or nuclear or oil-burning rather than coal-burning plants and signaling consumers to live in warmer climates or smaller or better-insulated houses than they would do if fuel were cheaper. Such responses would hold down the number of distasteful mining jobs to be filled. The few workers still doing that work would be ones whose distaste for it was relatively mild and capable of being assuaged by high wages.

No profound distinction holds between workers' sovereignty and consumers' sovereignty or between getting satisfactions or avoiding dissatisfactions in choosing what work to do and in choosing what goods to consume. Consumer goods are not ultimate ends in themselves but just particular means of obtaining satisfactions or avoiding dissatisfactions. People make their personal tastes and circumstances count by how they act on the markets for labor and goods alike.

Our broadened concept of consumers' and workers' sovereignty by no means upsets the idea of opportunity cost. We need only recognize that people choose not simply among commodities but rather among *packages* of satisfactions and dissatisfactions. The choice between additional amounts of *A* and *B* is really a choice between satisfactions gained and dissatisfactions avoided by people as consumers and producers of *A* and satisfactions gained and dissatisfactions avoided by people as consumers and producers of *B*. Choosing package *A* costs forgoing package *B*. Ideally, the prices of products *A* and *B* indicate the terms of exchange, so to speak, between the entire combinations of satisfactions gained and dissatisfactions avoided at the relevant margins in connection with the two products. Prices reflect intimately personal circumstances and feelings as well as physical or technological conditions of production and consumption.

None of this amounts to claiming that different persons' feelings about goods and jobs (and investment opportunities) can be accurately measured and compared in terms of price or in any other definite way. However, people's feelings do count in the ways that their choices are expressed and their activities coordinated through the price system, and changes in their

feelings do affect the pattern of production in directions that make intuitively good sense.

Clearly, then, economic theory need not assume that people act exclusively or even primarily from materialistic motives. Pecuniary considerations come into play, but along with others. As the laws of supply and demand describe, an increase in the pecuniary rewards or charges—or other rewards or costs—attached to some activity will increase or decrease its chosen level, other incentives and disincentives remaining unchanged. Money prices and changes in them can thus influence behavior and promote coordination of the chosen behaviors of different people, even though pecuniary considerations do not carry decisive weight and perhaps not even preponderant weight.

Value Theory

The role of subjectivism in solving the diamond-and-water paradox, replacing the labor theory or other real-cost theories of value, and accomplishing the marginalist revolution of the 1870s, is too well known to require more than a bare reminder here. Subjectivism must be distinguished from importing psychology into economics (Mises 1963, pp. 122–127, 486–488). Diminishing marginal utility is a principle of sensible management rather than of psychology: a person will apply a limited amount of some good (grain, say, as in Menger 1950, pp. 129–130) to what he considers its most important uses, and a larger and larger amount will permit its application to successively less important uses also.

Subjectivists do not commit the error of John Ruskin, who thought that "Whenever material gain follows exchange, for every plus there is a precisely equal minus" (quoted in Shand 1984, p. 120). They recognize that wealth is produced not only by physically shaping things or growing them but also by exchanging them. In the words of Henry George (1898/1941, pp. 331–332), who independently achieved several Austrian insights, "Each of the two parties to an exchange . . . [gets] something that is more valuable to him than what he gives. . . . Thus there is in the transaction an actual increase in the sum of wealth, an actual production of wealth."

Subjectivists recognize nonmaterial elements in costs as well as demands. Every price is determined by many circumstances classifiable under the headings of "subjective factors" and "objective factors" (or "wants" and "resources and technology").

An alternative classification distinguishes between demand factors and supply factors. This alternative is not equivalent to the first classification because there is no reason to suppose that subjective factors operate only on the demand side of a market while objective factors dominate the supply side.

On the contrary, subjective factors operate on both sides. The supply schedule of a good does not reflect merely the quantities of inputs technologically required for various amounts of output, together with given prices of the inputs. The input prices are themselves variables determined by bidding among various firms and lines of production in the light of the inputs' capabilities to contribute to producing goods valued by consumers. Consumers' subjective feelings about other goods thus enter into determining the money costs of supplying quantities of any particular product.

Subjective factors operate in both blades of Marshall's scissors. (Misleadingly, Marshall 1920, pp. 348, 813ff., had referred to a utility blade and a cost blade, as if utility and cost were quite distinct.)

By the logic of a price system, then, money cost brings to the attention of persons deciding on production processes and output volumes in any particular line—and ultimately to the attention of its consumers—what conditions prevail in all other sectors of the economy, including persons' attitudes toward goods and employments. Money prices and costs convey information about subjective conditions outside the direct ken of particular decisionmakers.

At this point the subjectivism of Austrian economists reinforces their awareness of general economic interdependence and their concern with coordination among the plans and actions of different people. They are wary (as many textbook writers seem not to be) of focusing so narrowly on the choices of the individual household and individual firm as to detract attention from the big picture.

Recognizing the subjective aspects of cost, we gain insights into the dubiousness of expecting prices to correspond to costs in any precise way. Costs represent values of forgone alternatives: costs are intimately linked with acts of choice.

Cost curves are no more objectively given to business firms than are demand curves for their products. A large part of the task of entrepreneurs and managers is to learn what the cost (and demand) curves are and to press the cost curves down, so to speak, through inspired innovations in technology, organization,

purchasing, and marketing. Outsiders are in a poor position to second-guess their decisions.

Subjectivists appreciate the role of expectations. Well before the recent vogue of "rational expectations" in macroeconomics, Ludwig von Mises (1953/1981, pp. 459–460) recognized that an inflationary policy could not go on indefinitely giving real "stimulus" to an economy; people would catch on to what was happening, and the supposed stimulus would dissipate itself in price increases. Von Mises also argued (1963, p. 586) that disorders such as the corn-hog cycle would be self-corrective. Unless the government protected farmers from the consequences of unperceptive or unintelligent behavior, farmers would learn about the cycle, if it did in fact occur; and by anticipating it would forestall it. (Those who did not learn would incur losses and be eliminated from the market.)

Much expressed nowadays are notions such as "the market's" expectation of some future magnitude—the dollar-mark exchange rate in three months, or whatever. Subjectivists are skeptical. They understand that "the market" does not form expectations or change light bulbs ("How many right-wing economists does it take to change a light bulb?") or do anything else. *People* do, people acting and interacting on markets. Since expectations are formed by people, they are understandably loose, diverse, and changeable.

All this intertwines with the inherent unpredictability of future human affairs. It is not even possible to make an exhaustive list of all possible outcomes of some decision, let alone attach probability scores to outcomes (Shackle 1972, especially p. 22). Policymakers should take this point to heart and restrain their optimism about being able to control events.

This is not to deny that some predictions can be made with warranted confidence, notably the if-this-then-that predictions of economic theory and of science in general. Foretelling the future is quite another matter. Economists, like other people, have only limited time and energy. It is reasonable for each one to stick to work exploiting his own comparative advantages and hunches about fruitfulness and not let himself be badgered into foretelling the unforetellable.

Further Policy Implications

The ultrasubjectivist view of cost put forward by James Buchanan (1969) and writers in the London School tradition

(some of whose articles are reprinted in Buchanan and Thirlby 1981) has been largely adopted by Austrian economists (Vaughn 1980 and 1981, Seldon 1981).

In examining this view, we must avoid false presuppositions about how words relate to things. It is not true that each word has a single definite and unequivocal meaning and that it labels a specific thing or action or relation objectively existing in the real world. On the contrary, many words have wide ranges of meaning. One way to learn what writers mean by a word is to see what implications they draw from propositions containing it.

This is true of "cost" as interpreted by Buchanan and the London economists. Those writers associate particular policy positions with the fuzziness that they attribute to cost. They heap scorn on cost-oriented rules for managing enterprises.

Advocates of such rules typically attribute important welfare properties to them. Probably the most prominent such rule is the one requiring the output of an enterprise to be set at such a level that price equals marginal costs. (In the same general cost-oriented family, however, would be rules like the one that total revenue should just cover total cost.) One strand of argument for socialism, in fact, is that socialized enterprises could be made to follow such rules, unlike unregulated private enterprises. Even under capitalism, such rules supposedly might be useful in the framing of antimonopoly policy and the regulation of public utilities. They might also figure in other government economic interventions and in the simulation of market results in nonmarket settings, as in tort settlements.

The case for socialism and milder government economic interventions can be weakened, then, by discrediting the measurability and even the conceptual definiteness of "cost." This, I conjecture, is a clue to the ultrasubjectivist view of the concept. "Cost," says Buchanan (1969, pp. 42–43), "is that which the decisionmaker sacrifices or gives up when he makes a choice. It consists in his own evaluation of the enjoyment or utility that he anticipates having to forego as a result of selection among alternative courses of action." If cost can thus be portrayed as a thoroughly subjective concept or magnitude, if no one but the individual decisionmaker (entrepreneur or manager) can know what cost is or was, and if such knowledge is ineffable and practically incommunicable, then no outside authority can reasonably impose cost-oriented rules on him. The case for displacing or overriding the market dissolves.

This line of argument has merit. In particular, as already

observed, cost curves do not objectively exist. Instead, business decisionmakers have the task of discovering or inventing them and modifying them by happy innovations. Unfortunately, as a later section of this article shows, Buchanan and the London economists carry their subjectivist line too far and so tend to discredit it.

Subjectivist insights about expectations have other notable policy implications. The history of energy policy, and of politicians' demagogy, provides reason for expecting future repetition of past infringements on property rights. Firms and investors must recognize that if they make decisions that turn out in some future energy crisis to have been wise—for example, stockpiling oil, cultivating nonconventional energy sources, adopting conservation measures, or building flexibility into their facilities and operations so as to be able to cope relatively well with energy squeezes—then they will not be allowed to reap exceptional profits from their risk bearing, their correct hunches, and their good luck. They will be victimized by seizure of oil stocks, by adverse treatment under rationing schemes, by price controls, or in other ways. Government reassurances, even if made, would nowadays not be credible. The benefits of diverse private responses to diverse expectations about energy supplies are thus partly forestalled.

This example reminds subjectivists of a broader point about remote repercussions of particular policies, repercussions remote in time or in economic sector affected. A violation of property rights may seem the economical and expedient policy in the individual case. Yet in contributing to an atmosphere of uncertainty, it can have grave repercussions in the long run.

Because expectations influence behavior, a policy's credibility conditions its effectiveness, as the rational-expectations theorists, and William Fellner (1976) before them, have emphasized. The question of the withdrawal pangs of ending an entrenched price inflation provides an example. When money-supply growth is slowed or stopped, the reduced growth of nominal income is split between price deceleration and slowed real production and employment. Expectations affect how favorable or unfavorable this split is. If the anti-inflation program is not credible—if wage negotiators and price-setters think that the policymakers will lose their nerve and switch gears at the first sign of recessionary side-effects—then those private parties will expect the inflation to continue and will make their wage and price decisions accordingly; and the monetary slowdown will

bite mainly on real activity. If, on the contrary, people are convinced that the authorities will persist in monetary restriction indefinitely no matter how bad the side-effects, so that inflation is bound to abate, then the perceptive price-setter or wage-negotiator will realize that if he nevertheless persists in making increases at the same old pace, he will find himself out ahead of the installed inflationary procession and will lose customers or jobs. People will moderate their price and wage demands, making the split relatively favorable to continued real activity.

It is only superficially paradoxical, then, that in two alternative situations with the same degree of monetary restraint, the situation in which the authorities are believed ready to tolerate severe recessionary side-effects will actually exhibit milder ones than the situation in which the authorities are suspected of irresolution. Subjectivists understand how intangible factors like these can affect outcomes under objectively similar conditions.

Capital and Interest Theory

Capital and interest theory is a particular case or application of general value theory, but its subjectivist aspects can conveniently occupy a section of their own.

Subjectivist insights help dispel some paradoxes cultivated by neo-Ricardians and neo-Marxists at Cambridge University. These paradoxes seem to impugn standard economic theory (particularly the marginal-productivity theory of factor remuneration), and by implication they call the entire logic of a market economy into question.

Reviewing the paradoxes in detail is unnecessary here (see Yeager 1976 and Garrison 1979). One much-employed arithmetical example describes two alternative techniques for producing a definite amount of some product. They involve different time-patterns of labor inputs. In each technique, compound interest accrues, so to speak, on the value of invested labor. Technique *A* is the cheaper at interest rates above 100 percent, *B* is cheaper at rates between 50 and 100 percent, and *A* is cheaper again at rates below 50 percent.

If a decline of the interest rate through one of these two critical levels brings a switch from the less to the more capital-intensive of the two techniques, which seems normal enough, then the switch to the other technique as the interest rate declines through the other switch point is paradoxical. If we view

the latter switch in the opposite direction, an increased interest rate prompts a more intensive use of capital. Capital intensity can respond perversely to the interest rate.

Examples of such perversity seem not to depend on trickery in measuring the stock of capital. The physical specifications of a technique, including the timing of its inputs and its output, stay the same regardless of the interest rate and regardless of whether the technique is actually in use. If one technique employs physically more capital than the other in relation to labor or to output at one switch point, then it still employs more at any other interest rate. This comparison remains valid with any convention for physically measuring the amount of capital, provided only that one does not change measurement conventions in mid-example. If the capital intensities of the two techniques are such that the switch between them at one critical interest rate is nonparadoxical, then the switch at the other must be paradoxical—a change in capital intensity in the *same* direction as the interest rate. We cannot deny perversity at both switch points—unless we abandon a purely physical conception of capital.

The paradox-mongers commit several faults. They slide from comparing alternative static states into speaking of *changes* in the interest rate and of *responses* to those changes. They avoid specifying what supposedly determines the interest rate and what makes it change.

The key to dispelling the paradoxes, however, is the insight that capital—or whatever it is that the interest rate is the price of—cannot be measured in purely physical terms. One must appreciate the value aspect—the subjective aspect—of the thing whose price is the interest rate. It is convenient to conceive of that thing as a factor of production. Following Cassel (1903, pp. 41ff. and passim), we might name it "waiting." It is the tying up of value over time, which is necessary in all production processes. (This conceptualization is "convenient" not only because it conforms to reality and because it dispels the paradoxes but also because it displays parallels between how the interest rate and other factor prices are determined and what their functions are: it brings capital and interest theory comfortably into line with general microeconomic theory.)

In a physically specified production process, a reduced interest rate not only is a cheapening of the waiting (the tying up of value over time) that must be done but also reduces its required value-amount. It reduces the interest element in the

notional prices of semifinished and capital goods for whose ripening into final consumer goods and services still further waiting must be done. Increased thrift is productive not only because it supplies more of the waiting required for production but also because, by lowering the interest rate, it reduces the amount of waiting required by any physically specified technique.

The amounts of waiting required by alternative physically specified techniques will in general decline in different degrees, which presents the possibility of reswitching between techniques, as in the example mentioned. When a decline in the interest rate brings an apparently perverse switch to a technique that is less capital-intensive by some physical criterion, the explanation is that the decline, although reducing the waiting-intensities of both techniques, reduces them differentially in such a way as to bring a larger reduction in the overall expense of producing by the adopted technique.

Preconceived insistence on measuring all factor quantities and factor-intensities in purely physical terms clashes with the fact of reality—or arithmetic—that the amount of tying up of value over time required in achieving a physically specified result does indeed depend on that factor's own price. Not only the waiting-intensity of a physically specified processes but also the relative waiting-intensities of alternative processes really are affected by the interest rate. When a switch of technique occurs, the technique adopted really is the more economical on the whole, the inputs, waiting included, being valued at their prices. When a rise in the interest rate triggers a switch of techniques, the displace done has become *relatively* too waiting-intensive to remain economically viable. It is irrelevant as a criticism of economic theory that *by some other, inapplicable, criterion* the displaced technique counts as less capital-intensive.

Further discussion of the supposed paradoxes would display parallels between reswitching and the conceivable phenomenon of multiple internal rates of return in an investment option, which is hardly mysterious at all (Hirshleifer 1970, pp. 77–81). Already, though, I've said enough to show how a subjectivist conceptualization of the factor whose price is the interest rate can avoid fallacies flowing from a materialist or objective conceptualization.

"I Am More Subjectivist than Thou"

On a few points, some Austrian economists may not have been subjectivist enough. Murray Rothbard (1962, pp. 153–154) seems to think that a contract under which no property has yet changed hands—for example, an exchange of promises between a movie actor and a studio—is somehow less properly enforceable than a contract under which some payment has already been made. Blackmail is a less actionable offense than extortion through application or threat of physical force (1962, p. 443, n. 49). If a villain compels me to sell him my property at a mere token price under threat of ruining my reputation and my business by spreading vicious but plausible lies, his action is somehow less of a crime or tort than if he had instead threatened to kick me in the shins or trample one of my tomato plants (Rothbard 1982, especially pp. 121–127, 133–148, and personal correspondence). The material element in a transaction or a threat supposedly makes a great difference.

I may be at fault in not grasping the distinctions made in these examples, but it would be helpful to have further explanation of what superficially seems like an untypical lapse from subjectivism into materialism.

Far more common is the lapse into overstating the subjectivist position so badly as to risk discrediting it. F.A. Hayek is not himself to blame, of course, but a remark of his (1952, p. 31) has been quoted *ad nauseam* (for example by Ludwig Lachmann in Spadaro 1978, p. 1; Walter Grinder in his introduction to Lachmann 1977, p. 23; and Littlechild 1979, p. 13). It has had a significance attributed to it that it simply cannot bear. “It is probably no exaggeration to say that every important advance in economic theory during the last hundred years was a further step in the consistent application of subjectivism.”

This proposition of doctrinal history could be strictly correct without its implying that every subjectivist step was an important advance. Moreover, past success with extending subjectivism in certain degrees and directions does not imply that any and all further extensions constitute valid contributions to economics.

A theorist is not necessarily entitled to take pride in being able to boast, “I am more subjectivist than thou.” More important than subjectivism for its own sake is getting one’s analysis straight.

The most sweeping extensions of subjectivism occur in remarks about a purely subjective theory of value, including a pure time-preference theory of the interest rate. Closely related

remarks scorn the theory of mutual determination of economic magnitudes, the theory expounded by means of systems of simultaneous equations of general equilibrium. The ultrasubjectivists insist on monocausality instead. Causation supposedly runs in one direction only, *from* consumers' assessments of marginal utility and value and the relative utilities or values of future and present consumption *to* prices and the interest rate and sectoral and temporal patterns of resource allocation and production (Rothbard 1962, pp. 302–303).

Taken with uncharitable literalness, the ultrasubjectivist slogans imply that people's feelings and assessments have *everything* to do and the realities of nature, science, and technology have *nothing* to do with determining prices and interest rates and all interrelated economic magnitudes. Actually, these objective realities do interact with people's tastes. They condition how abundant various resources and goods are, or could be made to be, and so help determine *marginal* utilities.

For two reasons I know that the ultrasubjectivists do not really believe all they say. First, the propositions in question, taken literally, are too preposterous for *anyone* to believe. Second, subjectivist writings sometimes discuss production functions, the principle of diminishing marginal physical product, and other physical relations, conceding some importance to such matters.

What I am objecting to, then, is not so much substantive beliefs as, rather, the willful use of misleading language, language that sometimes misleads even its users, language adopted on the presupposition that subjectivism is good and more of it is better.

Subjectivists may contend that physical reality counts only *through* people's subjective perceptions of it and the valuations they make in accord with it. But that contention does not banish the influence of objective reality. Businessmen (and consumers) who perceive reality correctly will thrive better on the market than those who misperceive it. A kind of natural selection sees to it that objective reality does get taken into account.

Full-dress argument for purely subjective value and interest theory and for unidirectional causality appears rarely in print, probably because such notions are not defensible. They do keep being asserted in seminars, conversation, and correspondence, however, as I for one can testify and as candid Austrians will presumably acknowledge. Furthermore, such assertions do

appear in authoritative Austrian publications. (For example, see Rothbard 1962, pp. 117, 122, 293, 307, 332, 363–364, 452, n. 16, 455, n. 12, 457, n. 27, 508, 528, 557, 893, n. 14; Rothbard, introduction to Fetter 1977; Taylor 1980, pp. 26, 32, 36, 47, 50; and Shand 1984, pp. 23, 44, 45, 54, 56. Garrison 1979, pp. 220–221, avoids the word "pure" in recommending a time-preference theory of interest and a subjectivist theory of value in general, but he does contrast them favorably with what he calls "eclectic" theories, such as the "standard Fisherian" theory of interest. For outright avowal of a pure-time-preference interest theory, see Kirzner's manuscript.)

The point repeatedly turns up in Austrian discussions that goods that people consider different from each other are indeed different goods, no matter how closely they resemble each other physically. This point is not downright fallacious, but the significance attributed to it is excessive, and its use in question-begging ways is likely to repel mainstream economists. An example is the contention that when a manufacturer sells essentially the same good under different labels at different prices, he is nevertheless not practicing price discrimination; for the goods bearing the different labels are considered by the consumers to be different goods, which *makes* them different goods in all economically relevant senses. The manufacturer is supposedly just charging different prices for different things.

Quite probably his practice is not one that perceptive economists and social philosophers would want to suppress by force of law; but we should not let our policy judgments, any more than our subjectivist methodological preconceptions, dictate our economic analysis or remove certain questions from its scope. It may be more fruitful to recognize that price discrimination is indeed going on, with the different labels being used to separate customers according to their demand elasticities.

Crypticism sometimes accompanies insistence on pure subjectivism. An example is a line of attack taken against mainstream interest theory, which enlists considerations of intertemporal transformability (that is, the *productivity* of investment) as well as the subjective time-preference element. This theory is epitomized by Irving Fisher's diagram (1930, pp. 234ff., Hirshleifer 1970, passim) showing a transformation curve between present and future goods (or consumption), as well as a map of indifference curves between present and future goods. A familiar Austrian objection is to insist that the diagram,

specifically the transformation curve, fails to make the required distinction between physical productivity and value productivity.

If not deliberate obscurantism, this objection does indicate misunderstanding of Fisher's theory (or impatience with or prejudice against it). Of course, some technological change that increases the physical productivity of investment in some specific line of production, say widgets, may not increase the value productivity of such investment. The increased physical amount of future widgets obtainable for a given present sacrifice may indeed have a reduced total value in terms of other goods and services in general (the future demand for widgets may be price-inelastic). Some of the new opportunities created by technological change will indeed be unattractive to investors. In invoking the greater productivity of more roundabout methods of production, Böhm-Bawerk (1959, II, 82–84, III, 45–56) was referring to "well-chosen" or "skillfully chosen" or "wisely selected" methods; and a similar stipulation applies to the present case. Technological changes that increase the physical productivity of particular roundabout methods broaden the range of opportunities among which investors can exercise wise choice, and implementing some of those choices does add to the demand for waiting, tending to bid up the interest rate.

The ultrasubjectivist objection is open to another strand of reply. It is illegitimate to invoke a contrast between physical productivity and value productivity by restricting the discussion to examples of sacrificing *specific* present goods to get more future goods of the same kind. What is conveyed by borrowing and lending (and other transactions in waiting) is not command over investible resources that would otherwise have gone into producing specific present goods but command over resources in general. It *is* legitimate to do what Fisher's diagram helps us to do: to conceive of present goods in general being sacrificed for larger amounts of future goods in general.

With their admirable general emphasis on process and on the decisions and actions of individual persons, Austrian economists should not rest content with attacks on mainstream capital and interest theory that rely on cryptic allusions to a distinction between physical productivity and value productivity (or, similarly, to assertions that factor prices will adjust). They should defend their pure subjectivism on this topic, if they can, with a detailed process analysis of how persons act.

Next I turn to exaggerations in the subjectivist cost doctrines of Buchanan and the London school. These theorists interpret the

cost of a particular course of action as the next-best course perceived and forgone by the decisionmaker. Ronald Coase (quoted with approval in Buchanan 1969, p. 28) says that "The cost of doing anything consists of the receipts which would have been obtained if that particular decision had not been taken. . . . To cover costs and to maximize profits are essentially two ways of expressing the same phenomenon."

Well, suppose the best course of action open to me is, in my judgment, to open a restaurant of a quite specific type in a specific location. The next-best course, then, is presumably to open a restaurant identical in all but some trivial detail, such as the particular hue of green of the lampshades. If so, the cost of the precise restaurant chosen is presumably an all but identical restaurant worth to me, in my judgment, almost fully as much. Generalizing, the cost of a chosen thing or course of action is very nearly the full value that the decisionmaker attributes to it.

My counterexample to the Coase-Buchanan cost concept may seem frivolous, but it raises a serious question. How far from identical to the chosen course of action must the next best alternative be to count as a distinct alternative? The point conveyed by questions like this is that either radical error or sterile word-jugging is afoot. (Nozick, 1977, especially pp. 372–373, expresses some compatible though not identical doubts about subjectivist concepts of cost and preference.)

More ordinary concepts of cost, however, are meaningful, including the interpretation of money cost in a particular line of production as a way of conveying information to decisionmakers in it about conditions (including personal tastes) in other sectors of the economy.

Buchanan (1969, p. 43) draws six implications from his choice-bound conception of cost, and Littlechild (in Spadaro 1978, pp. 82–83) quotes them all with apparent approval. I'll quote and comment only on the first, second, and fifth.

1. Most importantly, cost must be borne exclusively by the decisionmaker; it is not possible for cost to be shifted to or imposed on others.
2. Cost is subjective; it exists in the mind of the decisionmaker and nowhere else.
5. Cost cannot be measured by someone other than the decisionmaker because there is no way that subjective experience can be directly observed.

As for the first word and second implications, of course cost

can be imposed on others in quite ordinary senses of those words; it is not always kept inside the mind of the decisionmaker. What about adverse externalities—smoke damage and the like? What about losses imposed on stockholders by an incompetent business management? What about the costs that a government imposes on a population by taxation or inflation (or its command of resources, however financed)? Isn't it notoriously true that a government official need not personally bear all the costs of his decisions? What about involuntarily drafted soldiers? Even an ordinary business decision has objective aspects in the sense that the resources devoted to the chosen activity are withdrawn or withheld from other activities.

Of course the costs incurred in these examples have subjective aspects also—in the minds or the perceptions of the draftees and of persons who would have been consumers of the goods from whose production the resources in question are competed away. What is odd is the contention that no cost occurs except subjectively and in the mind of the decisionmaker alone.

As for the fifth implication, it is true that cost cannot be measured—not measured precisely, that is, whether by the decisionmaker or someone else. But measurability itself is evidently what is at issue, not the admitted imprecision of measurement of cost, as of other economic magnitudes. The money costs of producing a definite amount of some product, or the marginal money cost of its production, can indeed be estimated. Estimates of money cost take into account, in particular, the prices multiplied by their quantities of the inputs required to produce specified amounts of marginal amounts of the good in question. True, cost accounting has no objective and infallible rules and must employ conventions. For this and other reasons, estimates of money cost are just that—estimates. But they are not totally arbitrary; they are not meaningless.

Money costs of production, as well as the input prices that enter into estimating them, play a vital role in conveying information to particular business decisionmakers about conditions in other sectors of the economy. Money costs and prices reflect—do not measure precisely, but reflect—the values and perhaps even the utilities attributed by consumers to the goods and services whose production is foregone to make the required inputs available to the particular line of production whose money costs are in question. (Money costs and factor prices also reflect, as noted above, the preferences and attitudes

of workers and investors.)

It is therefore subversive to the understanding of the logic of a price system to maintain that cost is entirely subjective, falls entirely on the decisionmaker, and cannot be felt by anyone else.

Perhaps this risk of subversiveness is being run in a good cause. A healthy skepticism is in order about socialism, nationalization, and the imposition of cost rules on nationalized and private enterprises. However, we should beware of trying to obtain substantive conclusions from methodological preconceptions. Sound conclusions and policy judgments incur discredit from association with questionable verbal maneuvers.

Valid subjectivist insights join with the fact that general equilibrium never actually prevails in recommending skepticism about policies that would unnecessarily impose imitation markets or the mere feigning of market processes. The fact of disequilibrium prices does not, of course, recommend junking the market system in favor of something else. Market prices, although not precise indicators of the trade-offs posed by reality, are at least under the pressures of supply and demand and entrepreneurial alertness to become more nearly accurate measures.

The recommended skepticism does have some application, however, with regard to compensation for seizures under eminent domain, damage awards in tort cases, and the development of case law. It also has some application with regard to benefit-cost studies. Personal rights, not such exercises, should of course dominate many policy decisions.

Again, though, I want to warn against overstatement. Admittedly, costs and benefits are largely subjective, market prices are at disequilibrium levels, and other bases of making estimates are inaccurate also. But what is to be done when some decision or other has to be made—about a new airport, a subway system, a dam, or a proposed environmental regulation? Does one simply ramble on about how imponderable everything is, or does one try in good faith to quantify benefits and costs? Of course the estimates will be crude, even very crude, but perhaps the preponderance of benefits or costs will turn out great enough to be unmistakable anyway. In any case, expecting the advocates of each of the possible decisions to quantify their assertions and lay them out for scrutiny will impose a healthy discipline on the arguments made. It will weaken the relative influence of sheer poetry, oratory, demagogy, and political maneuvering.

My last example of subjectivism exaggerated and abused is

what even some members of the Austrian school have identified as a "nihilism" about economic theory. Nihilistic writings stress the unknowability of the future, the dependence of market behavior on divergent and vague and ever-changing subjective expectations, the "kaleidic" nature of the economic world, and the poor basis for any belief that market forces are tending to work toward rather than away from equilibrium (if, indeed, equilibrium has any meaning). Some of these assertions are relevant enough in particular contexts, but ultrasubjectivists bandy them sweepingly about as if willing to cast discredit not merely on attempts to foretell the future but even on scientific predictions of the if-this-then-that type. It is hard to imagine why an economist who thus wallows in unknowability continues to represent himself as an economist at all. (One hunch: he may think he has an all-purpose methodological weapon for striking down whatever strand of analysis or policy argument he happens not to like. But then his own analysis and arguments—if he has any—would be equally vulnerable.)

There is no point trying to conceal from knowledgeable Austrian readers what economist I particularly have in mind, so I'll refer to the writings of Ludwig Lachmann listed in the references (including his articles in Dolan 1976 and Spadaro 1978), as well as Lachmann's admiration of Shackle's writings on the imponderability of the future. Also see O'Driscoll's refreshing criticism (in Spadaro 1978, especially pp. 128–134) of Lachmann for practically repudiating the concepts of the market's coordinating processes and of spontaneous order.

Most recently, Lachmann has shown evident delight in the phrase "dynamic subjectivism." "[A]t least in the history of Austrian doctrine, subjectivism has become progressively more dynamic" (1985, p. 2). "To Austrians, of all people, committed to radical subjectivism, the news of the move from static to dynamic subjectivism should be welcome news" (1985, pp. 1–2).

The word "committed" is revealing. Instead of the scientific attitude, Lachmann evidently values commitment—commitment to a doctrine or to a methodology. Recalling Fritz Machlup's essay on "Statics and Dynamics: Kaleidoscopic Words" (1959/1975), I wish Machlup were alive today to heap onto "dynamic subjectivism" the ridicule it deserves.

Concluding Exhortations

As Gustav Cassel wrote in a book first published over sixty years

ago, it was an absurd waste of intellectual energy for economists still to be disputing whether prices were determined by objective factors or subjective factors (1967, p. 146). Referring to interest theory in particular, Irving Fisher (1930, p. 312) called it "a scandal in economic science" that two schools were still crossing swords on the supposed issue. Prices, including interest rates, are determined by factors of both kinds. As noted earlier, saying so does not mean identifying objective factors with the supply side and subjective factors with the demand side of markets, nor vice versa. Both sorts of factors operate on both sides.

For a grasp of how subjective and objective factors thoroughly intertwine in a system of economic interdependence, a study of the simplified general-equilibrium equation system presented in Cassel's (1967) chapter 4 is well worthwhile. The reader should pay attention, among other things, to the role of the technical coefficients, that is, coefficients indicating the amounts of each input used in producing a unit of each product. Cassel does not need to suppose, of course, that these coefficients are rigidly determined solely by nature and technology. On the contrary, an elaboration of his system can take account of how many of these coefficients are themselves variable and subject to choice in response to prices, which are themselves determined in the system of mutual interdependence.

Study of Cassel's chapter (or similar expositions) should also disabuse the open-minded reader of any lingering belief in unidirectional causality. Mutual determination of economic variables is a fact of reality; and no blanket prejudice against general-equilibrium theory, which does afford important insights, should blind one to that fact.

Of course, when one investigates the consequences of a specified change—say in tastes, technology, taxes, or a fixed exchange rate—it is not enough (nor, realistically, is it possible) to solve a general-equilibrium equation system with one or more parameters changed and then compare the new and old solutions. An adequate analysis traces out, perhaps even sequentially, the reactions of the persons involved and shows the reasonableness of their theorized reactions from their own points of view. But insisting on such a causal analysis does not presuppose belief in monocausality. The specified disturbance does indeed impinge on a system of mutual determination. Both the new and old constellations of economic activities result from multidirectional interactions of a great many subjective and objective factors.

Austrian economists have important messages to convey about subjective elements that, on all sides, pervade market behavior, signals, and outcomes. Their insights have important implications for policy. It is a shame to impede communication by remarks about purely subjective value theory, pure-time-preference interest theory, and the alleged fallacy of multidirectional causality.

Austrians cannot really mean what such remarks, taken literally, convey. They mislead and repel people outside the inner circle. The main goal of the Austrians is presumably not to recite slogans that reinforce cozy feelings of camaraderie among members of an elite. Instead, their goal, shared with other economists who wish well for mankind, is presumably to gain and communicate understanding of economic (and political) processes in the world as it is, has been, and potentially could be. They want to extend and communicate such knowledge so as to increase whatever chance there may be that man's deepest values will ultimately prevail. Respect for the straightforward meanings of words will aid in that endeavor.

Besides shunning deceptive slogans, Austrian economists should beware of surrounding their doctrines with a fog of methodological preachments, preachments suggestive, moreover, of pervasive sniping and sour grapes (as, for example, about the elegant formal theory that some other economists rightly or wrongly delight in). Above all, Austrians should avoid discrediting the sound core of their doctrine by contaminating it with bits of downright and readily exposable error (or what comes across as error on any straightforward reading of the words used). Austrians have positive contributions to make and should make them.

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Wages, Prices, and Employment: Von Mises and the Progressives

Lowell Gallaway Richard K. Vedder

There was a watershed in the history of economic ideas in the twentieth century, particularly ideas dealing with the relationships, in the aggregate, between money wage rates, price levels, and employment. This watershed occurred not quite a third of the way through the century and was derivative from the dramatic sequence of events known as the Great Depression. Economic thinking, in general, has never been the same since those years, especially in the United States, where, between 1929 and 1933, the unemployment rate rose from 3.2 to 24.9 percent, while output, in real terms, fell by about one-third.[1] Because of these developments, the Great Depression is often cited as a classic example of the failure of a capitalist economy to provide full employment of its resources, especially labor. Not surprisingly, that alleged failure triggered one of the most vigorous debates in the history of economic affairs, a debate that can be understood more fully if it is considered in the context of the state of thinking about the causes of unemployment on the eve of the Great Depression.

As the decade of the 1920s wound down, the dominant explanation for the occurrence of unemployment was the classical one, perhaps best represented in the writings of the British economist A.C. Pigou who, in his *Industrial Fluctuations* (1927), states that sufficiently flexible wages would "abolish fluctuations of employment altogether."[2] Even more explicit (although published in 1933 after the onset of the depression) is a passage from his *Theory of Unemployment* in which he argues:

> With perfectly free competition . . . there will always be at work a strong tendency for wage rates to be so related to demand that everybody is employed. . . . The implication is that such unemployment as exists at any time is due wholly to the fact that changes in demand conditions are

> continually taking place and that frictional resistances prevent the appropriate wage adjustments from being made instantaneously.[3]

With the Pigovian, or classical, argument lay the germ of the controversy to follow. The relationship between wage rates and employment envisaged by Pigou implied that unemployment was the result of real wage rates being too high (greater than their equilibrium level), suggesting that the solution to high levels of unemployment was a reduction in money (and real) wage rates.[4]

As a generalized explanation of the source of and remedy for unemployment, the classical analysis was found objectionable by many, some contesting it on theoretical grounds and others objecting for moral reasons. For example, within the broad fraternity of economists, there were those who felt that when dealing with the overall, or aggregate, economy, postulating an inverse relationship between real wage rates and employment was totally inappropriate in that it reversed the true direction of response. This argument, one variant of a long line of underconsumptionist ideas, had a wide range of appeal. The British economist John A. Hobson had espoused underconsumptionism beginning in the late nineteenth century; in 1923, he restated his position in *The Economics of Unemployment*, noting with disapproval that, "in depressed trade, with general unemployment, businessmen have considerable support from economists in calling for cuts in real wages."[5] In declaiming against the notion of wage cuts during times of high unemployment, Hobson emphasized the importance of the functional distribution of income in the determination of levels of output and employment, arguing that higher levels of wage rates were necessary to insure the existence of the level of consumption required to produce the full employment of labor. Thus, the cutting of wage levels in a time of depression would actually worsen the unemployment problem according to Hobson.

We should add that Hobson's was not the only form of underconsumptionist theory. W.T. Foster and W. Catchings proposed another variant, as did the famous Major Douglas.[6] However, Hobson was the most explicit in emphasizing the importance of wage rates as a determinant of levels of consumption. Thus, his theorizing stands in sharpest contrast to the classical view.

Underconsumptionism such as Hobson's would be expected to have had a rather substantial degree of popularity among trade unionists and the political left. In addition, though, it also had a remarkable vitality among American businessmen and supposedly, conservative politicians. Murray Rothbard has argued that:

> As early as the 1920's, "big" businessmen were swayed by "enlightened" and "progressive" ideas, one of which . . . held that American prosperity was *caused* by the payment of high wages instead of the other way around. . . . By the time of the depression . . . businessmen were ripe for believing that lowering wage rates would cut "purchasing power" (consumption) and worsen the depression.[7]

Supporting Rothbard's view are the public pronouncements of certain major American business figures when faced with the prospect of the Great Depression. Henry Ford, for one, speaking in late November 1929, said:

> Nearly everything in this country is too high priced. The only thing that should be high priced in this country is the man who works. Wages must not come down, they must not even stay on their present level; they must go up.
>
> And even that is not sufficient of itself—we must see to it that the increased wages are not taken away from our people by increased prices that do not represent increased values.[8]

Ford's remarks were made in conjunction with a meeting of himself and other American business leaders at a White House conference convened by President Herbert Hoover. The meeting's conclusions were summarized in the following press release quoted in the *New York Times*:

> The President was authorized by the employers who were present at this morning's conference to state on their individual behalf that they will not initiate any movement for wage reductions, and it was their strong recommendation that this attitude should be pursued by the society as a whole.
>
> They considered that, aside from the human

> consideration involved, the consuming power of the country will thereby be maintained.[9]

The conference from which these statements emerged was one of a series Hoover convened in November and December 1929, for the purpose of instituting what he perceived to be a new departure in dealing with the phenomenon of the business cycle—in his own words, a "program unparalleled in the history of depressions in any country and any time." Hoover believed in the efficacy of the federal government as a mechanism for the coordination of economic activity. He was an interventionist who, among other things, found morally and intellectually unacceptable the classical means of dealing with earlier incidents of depressed economic conditions. He termed it the "liquidation" of labor and he opposed it on two grounds. First, "labor was not a commodity: it represented human bones." Second, he found the underconsumptionist doctrines attractive; they had captured his mind.[10]

While the underconsumptionist hypotheses are intriguing, during the 1930s, the strongest attack on the classical view of the way to deal with unemployment came from within the orthodox economics establishment. In his *General Theory*, John Maynard Keynes challenged whether adjustments in money wage rates could be relied on to achieve full employment of labor.[11] The basis of this challenge was twofold. First, he questioned whether what Pigou called "frictional resistances" and what he treated as downward money wage rigidity would ever permit the money wage rate adjustments necessary to restore full employment. More important, though, Keynes and his explicators, perhaps most notably Abba Lerner, argued that even if this were not the case, whatever money wage adjustments took place would induce corresponding decreases in prices, leaving real wages (and output and employment) unchanged.[12]

If that were not enough, in an almost incestuous fashion, the Keynesian repudiation of the role of money wage rates as an adjustment mechanism at the aggregate level was capable of producing another round of underconsumptionist thought. As Paul Sweezy recalls, his reaction to the Keynesian argument in 1936 was that:

> [The] reasoning depended on the assumption of pure competition. . . . I asked myself how it would be affected if one dropped this assumption and substituted the more realistic one of generalized

> oligopoly. . . . [It] was here that the kinked demand curve came into the picture. I was not too much concerned with the demand curve as with the associated marginal revenue curve which of course would show not a kink but a gap. If the relevant cost curve passed through this gap, it could be raised or lowered without affecting output or employment. The next step was that higher incomes owing to a wage increase would then cause an increase in effective demand and hence in employment.[13]

Ultimately, the Keynesian attack on classicism took a variety of forms, such as liquidity traps and perfectly inelastic investment demand functions, but fundamental to all these were the already established premises that (1) the only important thing is aggregate effective demand and (2) money wage rates can be ignored.[14] The latter notion became enshrined in "progressive" economic thought of the post-World War II era in the United States. An almost classic statement of this position can be found in Peter Temin's 1976 attempt at assessing the relative importance of monetary forces in the Great Depression. In a brief, error-plagued discussion of the role of wage rates, he states:

> In the postwar debate over the Keynesian system, one of the dominant questions was whether an unemployment equilibrium was possible. *The consensus now seems to be accepted that in the long run it is not* (emphasis added).[15]

What Temin appears to mean, here, is that there is no unique equilibrium level of employment (or unemployment). Any money (or real) wage rate is potentially an equilibrium one. This position can be thought of as a neo-Keynesian view, for, to be fair to Keynes, he never would have espoused such a line of thought. In the *General Theory*, he specifically accepts the classical notion that unemployment is the result of real wage rates being too high.[16] Keynes's attack on the importance of wage rates centered on money wage rates usefulness as policy and not on whether there was an equilibrium real wage rate. The whole Keynesian framework, as envisaged by Keynes, was oriented toward prescribing ways in which the classical labor market equilibrium could be attained without relying on the

money wage rate adjustment mechanism. It is the neo-Keynesians, such as Temin, who dismiss the concept of labor market equilibrium out of hand.

The neo-Keynesian or "progressive" view achieved rather widespread acceptance quite quickly. For example, when his classic *The Theory of Money and Credit* was republished in 1953, Ludwig von Mises felt compelled to address this issue in a section of an epilogue ("Monetary Reconstruction") which he wrote for the volume. In one of the more remarkable passages in the history of economic ideas, he addressed the subject, which he called "the full-employment doctrine," in a fashion that is succinct, cogent, and prescient, foretelling in an almost uncanny fashion the path the U.S. economy would follow beginning some ten years later. The passage is a mere three pages in length and one hesitates to quote selectively from it for fear of losing a portion of its full flavor. Yet, for the purposes of this article, one brief paragraph is especially important:

> The most characteristic feature of the full-employment doctrine is that it does not provide information about the way in which wage rates are determined on the market. To discuss the height of wage rates is taboo for the "progressives." When they deal with unemployment, they do not refer to wage rates. As they see it, the height of wage rates has nothing to do with unemployment and must never be mentioned in connection with it.[17]

Von Mises's complaint was registered just prior to the high tide of the neo-Keynesian view, which was to come in the 1960s, with the popularization of the Phillips curve. Interestingly, von Mises anticipated the Phillips curve discussion in his treatment of the full-employment doctrine by describing exactly what would happen in a world in which price levels were shocked upward by monetary policy and money wage rates adjusted upward, but with a lag. Specifically, he argued that as prices move upward more rapidly than money wage rates, real wage rates will fall and observed unemployment will decline, suggesting a negative relationship between the rate of change in prices and the unemployment rate—what would become known in a few years as a Phillips curve. However, von Mises viewed the fall in unemployment that results from this as a temporary aberration, arising out of a movement of real wage rates below their equilibrium level, a circumstance that will disappear as money

wage rates fully adjust to the new level of prices and the equilibrium real wage rate is reestablished. This view anticipated Milton Friedman's 1967 Presidential Address to the American Economic Association.[18]

The von Misesian interpretation of the relationship between prices, wages, and unemployment was, of course, almost totally foreign to the mainstream of macroeconomic thinking when the Phillips curve relationship was announced to the world, primarily because of the prevalence of the view that there was no unique equilibrium wage rate in the labor market. In such a context, the "discovery" of the Phillips curve seemed to offer the possibility of empirically determining the "menu of policy options" available to the economy. In the mainstream view, every point on the Phillips curve was an equilibrium one. All that remained was to select the appropriate combination of unemployment and price inflation, presumably a political choice, and let the economists prescribe the set of macroeconomic policies necessary to achieve it. What with the burgeoning growth of modern high-speed data processing facilities, larger and larger macroeconometric models could be constructed and the process of producing the required sets of policy recommendations could be reduced to a simple mechanical procedure of running it through the model. The millennium had arrived. Or had it? Subsequent events, marked by the simultaneous existence of high rates of unemployment and price inflation, call into question the "optimistic" view that pervaded the 1960s.

The foregoing discussion suggests the extent of variation in perceptions of the relationship between wage rates and unemployment. Within the confines of economic orthodoxy, it took less than a half century for the pendulum to swing all the way from the classical view that, ceteris paribus, money wage rates and unemployment are positively associated with the Phillips curve notion that the more rapidly money wage rates are rising, the lower will be the level of unemployment. And, very recently, there is some evidence of a resurgence of interest in the role that money wage rates play in determining levels of unemployment.[19] About midway through this scenario of changing ideas, von Mises reaffirmed the classical view with his critique of the full-employment doctrine, an assessment that we find to be remarkably accurate. The remainder of this article will be devoted to presenting arguments to support our contention.

Wages in the von Misesian Framework

The basic concepts contained in the von Misesian view of the role of money wage rates are relatively straightforward. To begin, two forms of labor markets must be considered, one focusing on real wages and another dealing with money wage rates. In the real wage version, the demand for labor is determined by the marginal productivity of labor schedule, which derives from an aggregate production function relating output to the quality of capital and labor inputs. The supply of labor in the real wage labor market is determined by the leisure-real income preferences of individuals in the society and has the conventional positive slope. The real wage version of the labor market is depicted in panel *B* of figure 1.

On the money wage side, the demand and supply functions for labor are simple transformations of the real wage relationships. Assuming competitive commodity markets, the money wage labor demand curve is obtained by multiplying the real wage labor demand function by the price level, *P*. Similarly, the real wage labor supply function can be translated into a money wage relationship by multiplying it by the price level workers *expect* to prevail, designated as P_e, in the period of employment. If the actual price level and the expected price level are identical, the money wage labor market equilibrium level of employment will coincide with the real wage equilibrium level of employment. These relationships are shown in panel *A* of figure 1.

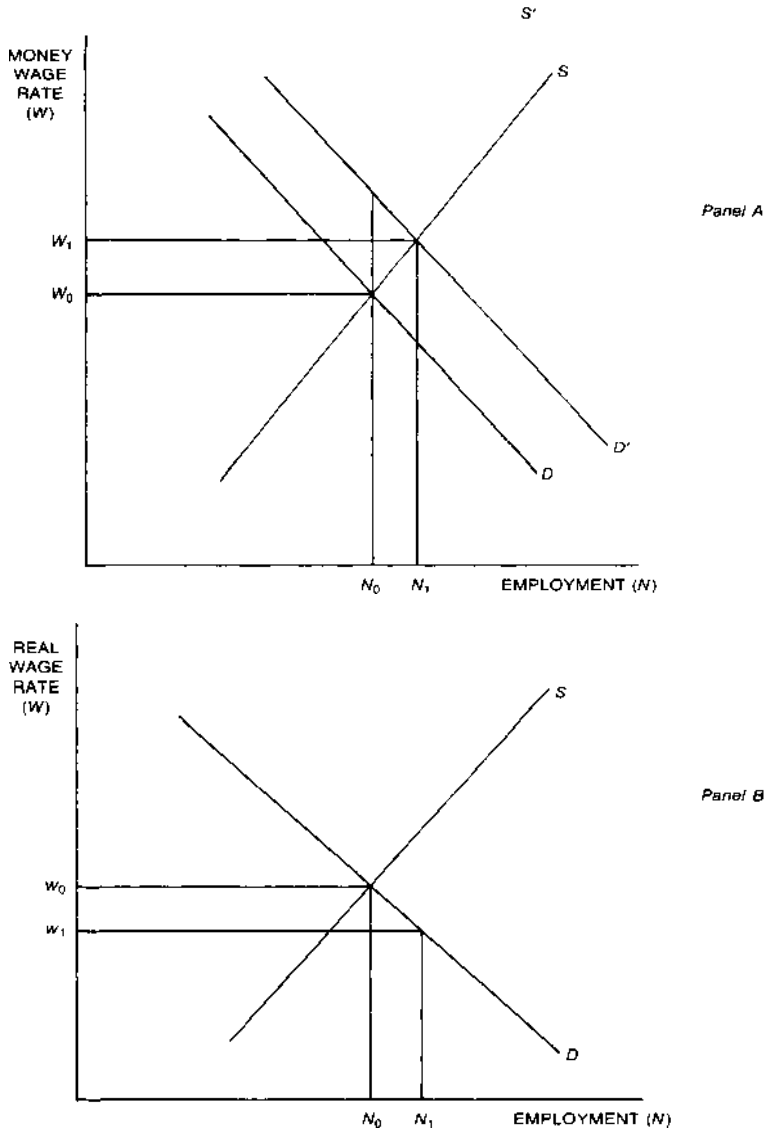

Figure 1. Wages in the von Misesian Framework

Suppose, though that the actual price level deviates from the expected price level (that is, unanticipated price inflation or deflation occurs). In such a case, the money wage labor market equilibrium level of employment will not be consistent with equilibrium in the real wage labor market. For example, imagine a burst of totally unanticipated inflation which shifts the *money wage* labor demand function to the right (To D' in panel *A* of figure 1), increasing the level of employment from N_0 to N_1. The impact in the *real wage* labor market, holding the technological

conditions of production (the production function) constant, will be a movement down the labor demand curve to the level of employment, N_u consistent with the *money wage* labor market equilibrium and the reduction in the *real wage* rate implicit in the inflation's being unanticipated. The new real wage rate is w_x in panel *B* of figure 1.

If there were no subsequent adjustment in the money wage labor supply function, the new money wage equilibrium could be sustained indefinitely. However, such an assumption implies the existence of a permanent money illusion on the part of workers and a shift in the real wage labor supply function that will produce an equating of the quantities demanded and supplied of labor in that market. The more likely response is one in which the expected price level, P_e, adjusts upward, shifting the money wage labor supply function to the left, and moving the money wage equilibrium level of employment back toward its initial position. In fact, if P_e adjusts until it is equal to P, the money-wage supply function will have shifted to S' and the original equilibrium will have been restored, albeit at a higher price and money wage level.

From the standpoint of better understanding the discussion of the variety of notions about the role of money wage rates in macroeconomic affairs that introduced this article, this theoretical paradigm is quite useful. The complete adjustment process where P_e becomes equal to P can be thought of as the von Misesian-classical view of the way in which labor markets function. By contrast, the various forms of the "progressive," or neo-Keynesian perception of the world can be derived from a situation in which money wage rates remain unchanged or P_e either does not respond to movements in P or responds incompletely. The no-money-wage response case corresponds to the pure-money-wage rigidity hypothesis, while a lack of adjustment or partial adjustment between P_e and P implies that both money and real wage rates adjust, ex post, to create an equilibrium that is both different from the previous equilibrium and consistent with the new value of P. In short, in a world of incomplete adjustment between P_e and P, the equilibrium levels of both money and real wage rates as well as *the level of unemployment* are determined by the price level.

Some Overall Empirical Evidence

The logic of the von Misesian-classical position seems clearly

superior to any of the alternatives, it being difficult to envisage why a permanent money illusion on the part of workers should exist. However, the money illusion hypothesis cannot be dismissed out of hand. Rather, it needs to be evaluated by referring to the actual evidence pertaining to movements of money wages and prices. The clear implication of the von Misesian-classical framework is that, in a world in which the technological conditions of production and workers' leisure income preferences are constant, the continual adjustment of *Pe* to bring it into equality with *P* would result in the maintenance of a stable real wage rate. In effect, over time, the rate of change in the level of money wage rates would exactly equal the rate of change in the price level.

Through time, though, technological progress alters the conditions of production. With a reasonable set of assumptions about the nature of the aggregate production function, the impact of technical progress in the labor market is reflected in changes in the average productivity of labor.[20] Consequently, if the real wage rate moves in consonance with the average productivity of labor, there is a clear indication that *Pe* responds and adjusts in the von Misesian-classical manner to changes in the price level. Table 1 presents statistical measures describing the behavior of real wage and average productivity levels in the United States for various time periods during the twentieth century. What these data show is that for substantial time periods, real wage rates and productivity levels have moved virtually in unison, that is, in accord with the predictions of the von Misesian-classical view of labor markets. In all fairness, though, extended intervals can be found in which this relationship is not as precise as suggested by the wider time frames. In particular, during the 1930s, real wage rates advanced more rapidly than productivity. The period since 1973 has also been marked by a greater increase in real wage rates than in average productivity. The detailed movements are shown in table 2. Both of these periods are marked by a substantial escalation of the observed unemployment rate, exactly what the von Misesian-classical model of labor markets argues should occur. The clear suggestion is that there is a systematic relationship between the level of real wages (adjusted for productivity change) and the level of unemployment.

The real wage-unemployment relationship for the United States can be explored more fully through the application of standard multivariate statistical analysis techniques. Table 3

describes the relationship between the level of unemployment and the real wage rate that emerges from such an analysis for the periods 1901–41 and 1949–80.[21] In general, it appears that a 1 percent movement in the index of average real wage rates, adjusted for productivity change, will be associated with about a seven-tenths of one percentage point change in the same direction in the unemployment rate. Thus, the greater the productivity-adjusted real wage rate, the greater the level of unemployment.

Table 1
Behavior of Wage and Productivity Measures, Various Periods, United States, 1901–73

Time Period and Wage or Productivity Measure	*Index at End of Period (Beginning = 100)*
1901–29: Average of annual and hourly real wage series	155.9
1901–29: Average of annual and hourly productivity series	156.0
1949–73: Bureau of Labor Statistics compensation per hour (real) series	203.0
1949–73: Bureau of Labor Statistics output per hour series	204.1

Table 2
Behavior of Wage and Productivity Measures, Various Periods, United States, 1929–82

Time Period and Wage or Productivity Measure	*Index at End of Period (Beginning = 100)*
1929–41: Average of annual and hourly real wage series	142.1
1929–41: Average of annual and hourly productivity series	124.0
1973–82: Bureau of Labor Statistics compensation per hour (real) series	110.1
1973–82: Bureau of Labor Statistics output per hour series	106.5

Table 3
Estimates of Statistical Relationship between Unemployment and Productivity-Adjusted Real Wage Rate, United States, 1901–80

	Change in Unemployment Rate Associated with a 1 Percent Change in Index of Adjusted Average Real Wage Rate
1901–41	0.73 (0.08)
1949–80	0.72 (0.12)

Source: Statistical appendix to this article.
Note: Values in parentheses are standard errors of the cited statistic.

Historical Example (1): The 1920–22 Cycle

The von Misesian-classical paradigm is a useful one for interpreting and understanding several rather disparate periods in the history of U.S. economic affairs in the twentieth century. Begin with the sharp post-World War I recession, the business cycle of 1920–22. Measured by the Federal Reserve Board series on factory employment, this downturn begins in the second quarter of 1920.[22] By the third quarter of 1921 (six quarters into the cycle), factory employment levels have fallen to 71.1 percent of what they were in the first quarter of 1920. Beyond that point, employment begins to rise, by the fourth quarter of 1922, returning to 85.6 percent of its first quarter 1920 level. The annual national unemployment rates for 1920, 1921, and 1922 are 4.0, 11.9, and 7.6 percent, respectively.[23] By 1923, full recovery has been achieved and the overall unemployment rate averages 3.2 percent.

What happened in this business cycle? Basically, the productivity-adjusted real wage rate (w_r*) rose quite rapidly.[24] With first quarter 1920 equal to 100, w_r* in the manufacturing area soared to 150.3 by second quarter 1921, primarily because the price level fell precipitously between 1920 and 1921. The Bureau of Labor Statistics (BLS) wholesale price index fell by 36.5 percent in this interval, a decline that was only partially matched by a fall in money wage rates. BLS data indicate manufacturing hourly wage rates fell by only about 13 percent between 1920 and 1921. The sharp rise in real wage rates

produced by this combination of price and money wage rate changes was only partially offset by a rise in the average annual productivity of labor of 3.3 percent.[25]

Midway through 1921, the price level stabilized and the recovery began as money wage rates continued to fall, in a lagged response to the drop in the price level, while productivity rose, lowering the productivity-adjusted real wage rate. Figure 2 shows the behavior of w_r* and employment in the manufacturing sector of the economy. The pattern is clear. As real wage rates begin to move back toward their equilibrium level, employment begins to rise. It is an almost classic case of labor markets responding to and correcting a substantial disequilibrium that was introduced by a destabilizing shock to the price level.

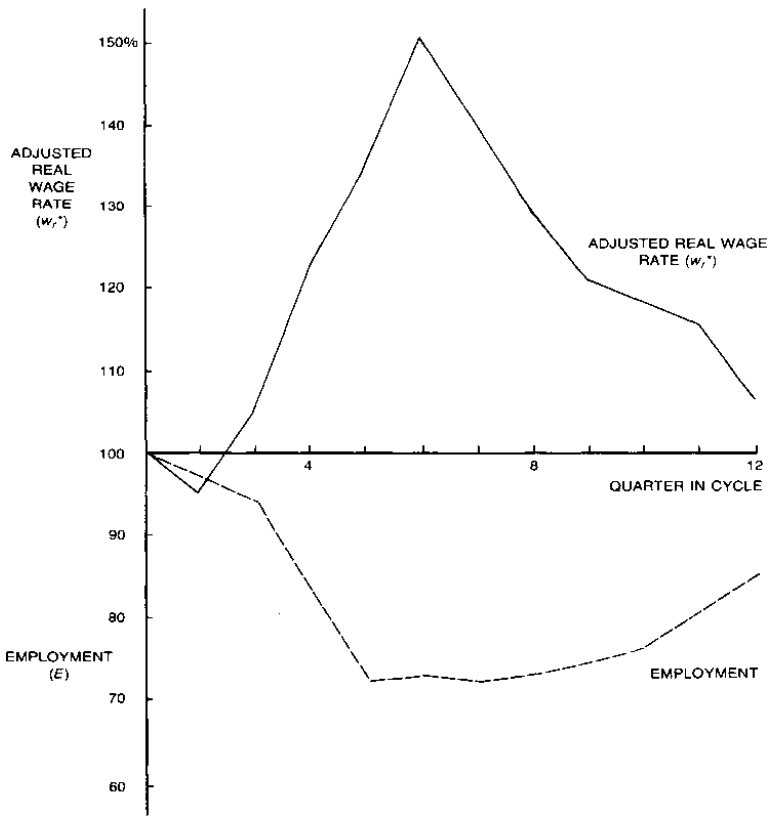

Figure 2. The 1920–22 Business Cycle

Historical Example (2): The Great Depression

If the von Misesian-classical labor market adjustment mechanism worked so well in 1921 in correcting the employment

disequilibrium generated by the shock of an unanticipated large fall in prices, what happened during the Great Depression beginning at the close of 1929? Why did the unemployment rate rise as much as it did and why did the Depression persist as long as it did? The Great Depression began innocently enough with a combination of events that shocked labor markets out of equilibrium by increasing the productivity-adjusted real wage rate, w_r*. On the one hand, the price level fell in 1930—not nearly as much as in 1921, only 3 percent—but, nevertheless, it fell. However, at the same time, the average productivity of labor also declined, by about 4 percent, unlike the 1920–21 downturn when it rose.[26] The combination of the productivity and price declines necessitated a compensating decline in money wage rates if a fall in employment was to be avoided. However, money wage rate decreases lagged developments in the price level and productivity sectors, much as in 1920, falling by less than 3 percent.[27] This operated to produce a disequilibrium in the real wage rate of 5 to 6 percent in 1930, depending on which money wage rate and productivity data series are used. (See table 4.) Predictably, unemployment rose from 3.2 to 8.7 percent.

It is interesting to speculate on how President Hoover's insistence on not cutting wage rates contributed to the emerging labor market disequilibrium. Rhetoric is one thing, but actual behavior may be something else. Indeed, some chroniclers of the history of this disturbed period have concluded that the public pronouncements of the Fords and Hoovers of the world did not have the effect of preserving wage stability. Perhaps betraying a predilection for underconsumptionism, Broadus Mitchell claims that, "The obligation [of industry] not to cut wages was . . . widely dishonored," and Arthur Schlesinger, Jr., states that, "The entire wage structure was apparently condemned to disintegration."[28]

Table 4 Unemployment Rate and Indexes of Consumer Prices,

Money Wages, Productivity, and Productivity-Adjusted Real Wages, United States, 1929–33

		Indexes (1929 = 100)						
	Unemployment Rate	*Consumer Prices*	*Money Wages*	*Productivity*		*Productivity-Adjusted Real Wage*		
				Annual	*Hourly*	*Annual*	*Hourly*	
1929	3.2%	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1930	8.7	97.3	97.4	98.4	94.8	96.3	106.7	105.0
1931	15.9	88.6	90.4	94.4	94.4	97.1	111.4	109.7
1932	23.6	79.6	80.1	82.4	81.8	93.4	118.5	110.1
1933	24.9	75.4	73.3	82.6	87.6	91.6	117.0	119.6

That wages fell, ultimately, is not to be questioned. The Hoover policies could not be pursued indefinitely. What is more important is the timing of the wage decreases. The issue is whether the Hoover recipe delayed the onset of money wage adjustments sufficiently to exacerbate the disequilibrium and increase the severity of the Great Depression. The evidence is persuasive that this is the case. The average hourly earnings of production workers in manufacturing declined from 56 cents in 1929 to only 55 cents in 1930; in bituminous coal mining, average hourly earnings stayed constant at 66 cents in 1930; and in both the building and printing trades, union wage scales actually increased in 1930.[29] At a more detailed level, a monthly wage index compiled by the Federal Reserve Bank of New York (reported by Lionel Robbins) shows almost no movement in money wage rates from the fourth quarter of 1929 through the second quarter of 1930.[30]

Contrast this pattern with that of the 1920–21 downturn. In both cycles, industrial production peaked at midsummer before the onset of the decline. In both cycles, the decline was precipitous, 27.5 percent from July 1920 to July 1921 and 21.3 percent from June 1929 to July 1930.[31] However, as noted earlier, in the 1920–21 case, money wage rates fell by 13 percent, setting the stage for the sharp recovery that began in August 1921. One of the factors cited by Benjamin Anderson in explaining this recovery is "a drastic reduction in the costs of production."[32] How these costs were reduced is clear—money wage rates were cut, something that did not occur in the early days of the Great Depression. For example, according to data compiled by the National Industrial Conference Board, hourly wage rates for unskilled male labor fell more between 1920 and 1921 than they declined throughout the Great Depression.[33]

The clear implication seems to be that the money wage rate adjustment process was distinctly different during the Great Depression compared to the 1920–21 decline in business activity. Apparently, Herbert Hoover's goal of maintaining levels of money wage rates was achieved, at least temporarily. It is worth noting that not only did the Hoover policies call for maintaining wages in order to sustain purchasing power but, in addition, they advocated a similar departure with respect to dividends. Amazingly, at a time when corporate profits were falling rapidly, dividends were relatively unchanged, while undistributed corporate profits turned *negative*. Anderson remarks, "The poor old St. Louis and San Francisco Railroad, impressed with its duty to keep purchasing power high, proceeded to declare its preferred dividend a full year in advance—with unsatisfactory consequences."[34]

The course of the onset of the Great Depression can be traced in a more detailed fashion by employing the data series referred to in the discussion of the 1920–22 business cycle. Using Federal Reserve Board information on factory employment and estimates of productivity-adjusted real wages in manufacturing, it is possible to observe the same pattern of wage and employment changes that marked the 1920–21 downturn in the business cycle. It began in the fourth quarter of 1929. By the fourth quarter of 1930, factory employment had fallen to 78.7 percent of its third quarter 1929 level. Accompanying this was a 26.7 percent rise in adjusted real wage rates in the industrial sector.[35]

Up to this point, the 1920–21 cyclical downturn and the

Great Depression are quite similar in nature. Unanticipated exogenous shocks of the price level and productivity variety have displaced the real wage rates upward from its equilibrium level, resulting in a rise in unemployment. In the case of 1921, the price level stabilized, money wage rates continued to adjust downward, and recovery began. However, during the Great Depression, the price level did not stabilize. Rather, a secondary price shock occurred that ultimately (by 1933) drove the price level down to 75 percent of its 1929 value. Milton Friedman and Anna Schwartz ascribe this secondary (as well as the primary) price shock to the policies of the Federal Reserve Board.[36]

While the Friedman-Schwartz argument is intriguing, there is an alternative explanation that builds on the contribution of Hoover's underconsumptionist policies to delaying the normal adjustment process. A good case can be made that the failure of labor markets to adjust during the first year of the Great Depression had very important second-round effects that contributed to the sharp decline in output and rise in unemployment noted in 1931 and 1932. For example, the financial crisis, beginning in full force in 1931, can easily be attributed to the failure of labor markets to adjust in 1930. In turn, that financial crisis led to an unanticipated sharp decline in the stock of money that brought about equally unanticipated deflation, deflation that complicated the process of labor market adjustment even further, and, in fact, contributed to higher real wages and interest rates in 1931 and 1932.

By maintaining money wages in the face of falling productivity and prices, businesses encountered a massive profit squeeze by mid-1930. Before-tax corporate profits fell some 63 percent from 1929 to 1930 and, given that dividends were maintained at essentially their 1929 levels, undistributed corporate profits fell from $2,820 million in 1929 to a *negative* $2,613 million the following year.[37] Whereas, in mid-1929, less than 6 percent of firms surveyed by First National City Bank of New York were losing money, by the third quarter of 1930, the proportion of losers had increased to 29 percent and a large percent of the remainder were not covering dividend payments.[38] Profits in the second quarter of 1930 are estimated to have been less than half of what they were but nine months earlier.[39]

By mid-1930, the profit squeeze was beginning to be noticed by the financial community. One immediate effect was a sharp decline in new capital financing. New capital issues averaged

$810 million a month in the first half of 1930, but fell more than 55 percent to $362 million a month in the last half of the year.[40] Stock prices, which were higher in May 1930 than in November 1929, fell 36 percent between May and December, a greater decline than observed in the so-called “great crash” of late 1929.[41]

The financial squeeze that led to a decline in demand for corporate equities led to a similar decline in the attractiveness of corporate debt. An increasing inability of businesses to cover debt obligations from cash flow led to growing lender hesitancy in making loans, which manifested itself in higher risk premiums on loans to business. What Ben Bernanke calls the “cost of credit intermediation” began to increase sharply.[42] Bernanke observes that the yields of middling-quality corporate debt (Baa bonds) were about 2.5 percent higher than on high-quality U.S. government bonds in both late 1929 and mid-1930, but that the differential rose more than 30 basis points every month in the last quarter of 1930, with the differential of 2.41 percentage points in September widening to 3.49 percentage points by December, and, then, to more than 4 percentage points by the summer of 1931.[43] More importantly, the deterioration in corporate balance sheets increased the proportion of firms with debt classified as being of low or middling quality and a corresponding decrease in the proportion of firms with high-quality debt ratings. As a consequence, the risk premiums paid by U.S. corporations on new debt probably rose far more than 100 basis points in 1930 and even more in 1931. The real price of financial capital was rising even faster, as accelerating deflation, beginning in late 1930, raised real interest rates substantially. Rising government borrowing to finance the Hoover fiscal program in 1931 added to interest rate pressures and the crowding out of private investment.[44]

The impact of the decline in corporate profitability on the supply of savings and loanable funds was devastating, as table 5 documents. Savings fell roughly 40 percent between 1929 and 1930, with nearly 90 percent of the decline attributable to the decrease in corporate undistributed profits. Savings fell again, by another 40 percent, in 1931, with about half the decline resulting from the worsening corporate profitability picture and 30 percent of it due to the shift in deficit financing by the federal government. The sharp fall in savings contributed to a massive increase in real interest rates and the real cost of financial capital.[45] This helps explain the drop of 53 percent in

nonresidential fixed investment between 1929 and 1931.[46]

Table 5
Savings in the United States, 1929–31
(*in $ billions*)

Form of Savings[a]	*1929*	*1930*	*1931*
Personal savings	$4.2	$3.4	$2.6
Capital consumption allowances	7.9	8.0	7.9
Corporate retained earnings	2.8	-2.6	-4.9
Net federal savings[b]	0.7	0.7	-0.6
Total	15.6	9.5	5.0

Source: U.S. Department of Commerce, Bureau of Economic Analysis.
[a] State and local governmental savings are excluded.
[b] As measured by the change in the public debt; a reduction in the national debt is viewed as positive savings.

It is important to note that the deterioration in corporate profits began long before the banking crisis emerged. The sum of bank deposits and currency in October 1930 was within 3 percent of the level prevailing in September 1929, before the stock market crash.[47] A good measure of depositor confidence is the deposit/currency ratio, which tends to fall as depositors become wary of banks and convert deposits to currency. The deposit/currency ratio in October 1930 was the second highest monthly total ever recorded.[48] Fear of banks on the part of depositors clearly had not yet developed. Yet, retained earnings already had turned negative by October 1930, and the risk premiums associated with corporate lending already were rising.

In the year after October 1930, the banking crisis began in force. The deposit/currency ratio fell more than one-third from October 1930 to October 1931, a majority of the decline observed during the whole of the Great Depression.[49] The conventional wisdom is that the failure of the Bank of the United States on December 11, 1930, and some other bank failures, triggered a decline in depositor confidence leading to the shift

from deposits into currency, a move that lowered bank reserves and forced monetary contraction.[50] Our alternative hypothesis is that the deterioration in corporate profits, in part explained by the wage inflexibility of late 1929 and early 1930, led to a decrease in the market value of business loans, wiping out much —possibly all—of the net worth of many financial institutions. Growing realization that bank balance sheets (which were generally based on book values) did not reflect true market valuations of assets led to depositor withdrawals that, in turn, caused the banking crisis. In this view, the banking crisis was a consequence of labor market maladjustment rather than the cause of a deepening of the Great Depression.

Is it reasonable to assert that the decline in the quality of business loans associated with falling business earnings, and also the decline in the value of mortgages and consumer loans associated with rising unemployment, caused a dramatic deterioration in the true financial condition of banks? The answer is clearly yes, as an example can illustrate. Suppose a long-term loan were made at 6 percent interest in 1929, but had that loan been made in late 1930, an 8 percent interest rate would have been required to compensate the lender for the greater risk associated with the diminished ability of the lender to repay. A $1,000 loan made at 6 percent in 1929 with a very long maturity date would have, by late 1930, a market value approaching $750, since the $60 interest payment (6 percent of $1,000) would be 8 percent (the risk-augmented rate) of $750.[51] On a short-term obligation, the decline in the market value would have been much less, but in any case some decline in market value would occur. Assume that, by late 1930, bank loans and investments, on balance, were worth 10 percent less than their stated market value. Considering the 36 percent decline in equity prices from May to December 1930, this seems to be a reasonable estimate of the actual decline in value. For all banks, for the entire year 1930, average loans and investments of banks were stated to be $59,080 million.[52] If the true value were 10 percent less, the overstatement is $5,908 million, an amount equal to 57 percent of stated bank capital for the year.[53] In other words, true bank capital would have been far less than half the amount stated. Moreover, these are average amounts, and many banks no doubt would have had much less real capital, and, in some cases, none. In a world before deposit insurance, bank capital was a reserve providing depositor protection. As that protection became increasingly fictitious in nature, a

reasonable depositor response is the flight from deposits that characterized the crisis that began in very late 1930.

We wish to emphasize that this hypothesis regarding the banking crisis is tentative. Further research needs to be done. We have not exhaustively examined either financial records or historical accounts. Indeed, some evidence might be viewed as contradicting the hypothesis.[54] On balance, however, a preliminary examination of the available data supports the contention that the banking crisis was a result of the disequilibrium in labor markets that resulted from an adherence to the underconsumptionist pleas of President Hoover and leading industrialists. This is not to deny that the banking crisis aggravated the Great Depression. Quite the contrary. On this point, the evidence of Friedman and Schwartz is rather persuasive. The cause of the banking crisis, however, needs reexamination.

Whatever its source, the secondary wave of price declines had the effect of increasing the degree of maladjustment in labor markets, partly because they were accompanied by further drops in productivity, largely due to a decline in the nation's capital stock. Between 1929 and 1933, low levels of new investment in fixed capital produced a rapid deterioration in the capital stock, as much as one-fourth according to Kuznets—less, but still significant, if other sources are believed.[55] Collectively, these additional price and productivity shocks vitiated a downward adjustment in money wage rates that began in mid-1930. Between 1930 and 1931, average annual money wage rates declined by 6.5 percent; from 1931 to 1932, by 12.1 percent; and between 1932 and 1933, by 8.4 percent. All told, in the four years from 1929 to 1933, average annual money wage rates fell by about 27 percent, or slightly more than the decline in the price level (as measured by the consumer price index).[56] However, this was insufficient to compensate for the combined impact of the price and productivity declines and the productivity adjusted real wage rate steadily advanced until, by 1933, real wages were almost 20 percent above their equilibrium level. (See table 4 for details.)

Referring again to the quarterly data on manufacturing employment and adjusted real wages, figure 3 shows quite clearly how 1929–33 differed from 1920–22. At the six-quarter mark in the two cycles, the 1920–21 downturn was the more severe of the two. In the 1920–22 case, the adjusted real wage rate began to fall at this point and continued to fall until

equilibrium was restored and recovery achieved in 1923. The Great Depression, though, was marked by an aborted decline in the adjusted real wage rate. The critical point appears to be about seven to eight quarters into the Great Depression. In the seventh quarter, the adjusted real wage rate fell but, thereafter, it resumed a pattern of upward movement as the secondary price and productivity shocks impacted on the labor market. The result was that, after a brief slowing of the decline in factory employment, the economy, so to speak, "fell off the shelf" as the year 1932 began. At the twelve-quarter mark in the two cycles, recovery from the 1920–21 downturn was well under way while, in the Great Depression, the economy was still spiralling downward.

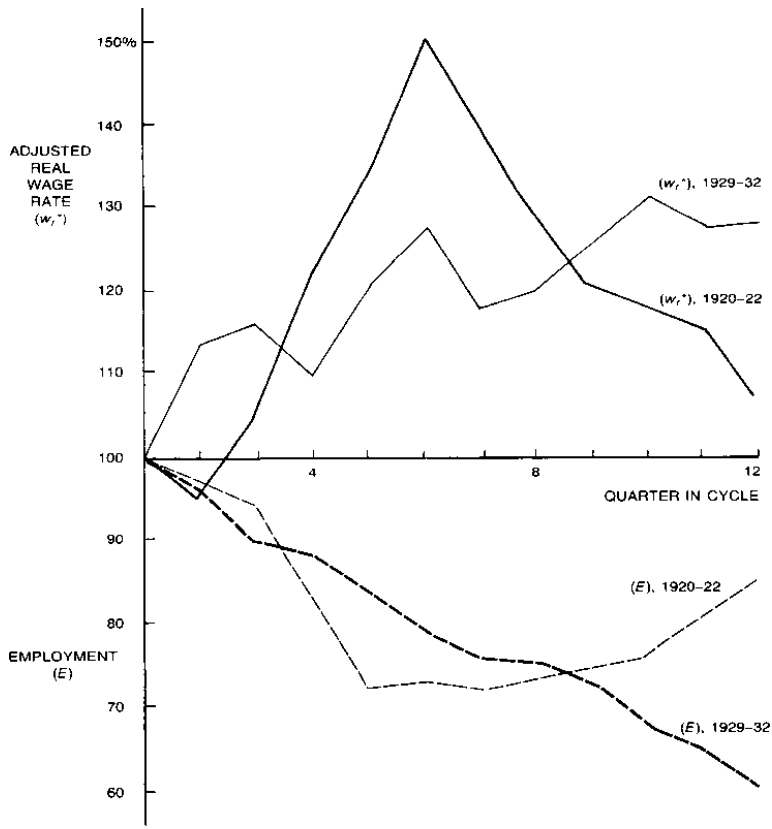

Figure 3. Comparison of 1920–22 Business Cycle with Early Years of Great Depression

Having reached bottom in 1932–33, the U.S. economy begins to turn upward over the next four years. Unemployment falls from its 1933 high of 24.9 percent to 21.7 percent in 1934,

20.1 percent in 1935, 16.9 percent in 1936, and 14.3 percent in 1937. The speed of the recovery was slow, certainly much less rapid than in 1920–22, and this raises the question, "Why?" After 1933, the productivity decline is reversed and there are modest rises in the price level. (See table 6.) However, after a long period of declining money wage rates, they begin to rise in 1934, and, as they do, the extent of economic recovery is diminished. A simple exercise that employs the multivariate analysis of the relationship between unemployment and adjusted real wage rates reported earlier reveals that *had the real wage rate (unadjusted for productivity change) remained at its 1933 level, the unemployment rate in 1937 would have been 2.4 percent*, *rather than 14.3*. But, the unadjusted real wage rate did not stay constant. Between 1933 and 1937, average annual money wage rates rose by 20.5 percent (about 5 percent a year), while the price level only increased by 10.8 percent. Were it not for an 18.4 percent rise in the annual average productivity of labor, the recovery would have been even more minimal.

Why the surge in money wage rates? This is not what would be expected during a period of extremely high unemployment rates. For example, between 1936 and 1937, average annual money wage rates rose by 9.9 percent, despite unemployment rates in the 15 percent range. Some obvious possible explanations come rather quickly to mind. The period beginning in 1933 was one of substantial social and political experimentation with institutional arrangements that have an impact on labor markets. In June 1933, toward the end of the first hundred days of the New Deal, the National Industrial Recovery Act (NIRA) was passed establishing the National Recovery Administration (NRA). At least two provisions of that legislation seem pertinent to this discussion. First, one of the conditions that was established in order for businesses to qualify for the right to display the blue eagle symbol of the NRA was adherence to a minimum wage of 40 cents per hour. Since average hourly wage rates in manufacturing in 1933 were only 44 cents, it seems likely that the minimum wage provision pushed up the wage rates of many relatively low-wage workers. Admittedly, the minimum wage rates were not a legislative mandate and, technically, were voluntary on the part of business. However, in the face of a widespread campaign urging consumers to buy at the sign of the blue eagle, the pressure on businesses to abide by such voluntary practices was substantial. [57] Certainly, the behavior of money wage rate levels in 1934 is

consistent with the notion that the NRA codes had a positive impact on money wage rates. At the bottom of the Great Depression, with unemployment rates nearing 25 percent, average hourly money wage rates in manufacturing rose from 44 cents to 53 cents, slightly more than a 20 percent increase. [58]

Table 6 Consumer Price Index, Unemployment Rate, Money Wages, Productivity, and Productivity-Adjusted Real Wages, United States, 1933–38

	Unemployment Rate	*Wage or Price Index (1933 = 100)*						
		Consumer Prices	*Money Wages*	*Productivity*		*Adjusted Real Wage*		
		Annual	*Hourly*	*Annual*	*Hourly*	*Annual*	*Hourly*	
1933	24.9%	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1934	21.7	103.5	102.0	119.1	102.7	110.1	96.0	104.5
1935	20.1	106.1	106.7	123.3	108.7	113.7	92.5	102.2
1936	16.9	107.2	109.7	125.0	117.2	119.5	87.3	97.6
1937	14.3	111.1	120.5	142.1	118.4	119.3	91.6	107.2
1938	19.0	109.2	116.8	146.1	117.9	116.9	90.8	114.5

The second portion of the NIRA with significance to labor

market behavior is section 7(a), a seemingly innocuous statement guaranteeing workers the right to organize and engage in collective bargaining with employers.[59] This was the forerunner of the National Labor Relations Act of 1935 (the Wagner Act), which established as a matter of national policy the collective bargaining rights of workers. Presumably, an enhanced labor union presence will have an impact on wage levels in the unionized areas of employment. This seemingly was the expectation of the Congress. The second paragraph of section 1, the "Policy and Findings" portion of the law, reads:

> The inequality of bargaining power between employees who do not possess full freedom of association or actual liberty of contract and employers who are organized in the corporate or other forms of ownership association substantially hinders and affects the flow of commerce, *and tends to aggravate recurrent business depressions, by depressing wage rates and the purchasing power of wage earners in industry* and by preventing the stabilization of competitive wage rates and working conditions within and between industries (emphasis added).[60]

Congress was obviously under the influence of the underconsumptionist ideas of the time. However, there may be a substantial disparity between legislative intent and actual events. What evidence is there that the enactment of legislation such as the Wagner Act had any significant impact on wage levels? This issue is often debated, and there is a substantial literature dealing with the question of the effect of unionism on wage levels.[61]

Much of that literature focuses on the impact of unions on wages in the unionized sector of the labor market relative to wages in the nonunion sector. To give this research a greater historical dimension, consider the behavior since 1919 of a comprehensive measure of wage rates—compensation of full-time equivalent employees—in those private sector industries traditionally regarded as being unionized (mining, construction, manufacturing, and transportation, communications, and public utilities) vis-à-vis typically nonunionized industries (wholesale and retail trade, services, and finance, insurance, and real estate). The wage differential between these sectors, expressed as a percentage of the average wage for all workers (thus

converting it into a relative wage differential), shows no trend in the decade 1919–29, averaging 4.97 percent and ranging from a low of a negative 1.91 percent (nonunion wages exceeded union wages in 1922) to a high of 7.22 percent in 1919. (See table 7.)

Over the four years that follow, the differential is negative in three, including a minus 5.89 percent in 1932. From that point, there is a consistent increase until the 1919 high is surpassed in 1936 (at 8.04 percent), followed by a 10.48 percent figure in 1937. This pattern of increases is not a transitory phenomenon. By 1941, the measure of this differential has opened out to 23.17 percent. The trend continues after World War II to 24.45 percent in 1950 and 33.05 percent in 1960.[62] Formal statistical tests of these trends indicates a substantial change in the pattern of behavior of the union/nonunion wage differential, commencing at approximately the time the nation's basic policy with respect to trade unions shifted from being one of reluctant toleration to one of legal encouragement.

Table 7
Union/Nonunion Wage Differential as a Percentage of Average Compensation, Full-Time Equivalent Employees, 1919–41

	Differential
1919	7.22%
1921	5.77
1922	-1.91
1923	5.65
1924	6.47
1925	3.97
1926	3.19
1927	6.62
1928	7.15
1929	5.60
1930	3.87
1931	-0.23
1932	-5.89
1933	-0.73
1934	1.06
1935	3.65
1936	8.04
1937	10.48

1938	5.83
1939	10.32
1940	14.13
1941	23.17

Source: *Historical Statistics of the United States*, series D-685–719.
Note: In order to take account of changes in industrial mix through time, 1954 weights are used throughout to standardize the estimates of compensation per full-time equivalent employee. Thus, these estimates abstract from shifts in industrial structure.

While this evidence is suggestive, a more formal statistical analysis would be reassuring. Again, multivariate statistical techniques are employed to measure the relationship between money wage rates, on the one hand, and prices, productivity, and the extent of unionization in the labor force on the other.[63] The results confirm the existence of a statistically significant positive relationship between the portion of the labor force that is unionized and the level of money wage rates. Knowing this relationship, and knowing the impact of changes in money wage rates on unemployment (from the earlier statistical analysis of the causes of unemployment), changes in the extent of unionism can be translated into estimated changes in unemployment.[64] Table 8 presents the results of doing this for the post-1933 period. By 1938, the expansion of unionism brought about by the legislation of the mid-1930s is estimated to have caused the unemployment rate to be at least five percentage points greater than it otherwise would have been.

The rise in wage rates and unemployment attributable to the increase in trade unionization is not the only significant structural change occurring at this time. Various government policies were contributing to increasing labor costs in ways not measured by the standard wage rate statistics employed in our discussion. This was the era in which the great explosion of supplements to wages and salaries began. In 1929, supplements to wages and salaries were 1.2 percent of the total wage bill. Little change occurred in this relationship through 1935. In that year, supplements were 1.4 percent of the annual wage bill. In 1936, though, they rose to 2.4 percent; in 1937, to 4.2 percent; and, in 1938, to 5.1 percent.[65] At that point, supplements stabilized at about 5 percent of the total wage bill. The source of the rise in supplements is primarily in the form of employer contributions for social insurance. In 1935, they accounted for 25 percent of all supplements while, in 1938, they were 71 percent of supplements. Two new social programs old-age survivors

insurance and unemployment insurance, explain this rise. The former represents about 17 percent of supplements in 1938, while the latter accounts for 43 percent of supplements. Thus, the newly emerging public retirement system produced about an 0.85 percent increase in wage costs, while the unemployment insurance system added another 2.20 percent. With the aid of the statistical model of unemployment described earlier, the impact on unemployment of these changes can be estimated.[66] Year-by-year calculations are shown in table 8. They indicate that, by the late 1930s, the impact of the increases in employer contributions for social insurance was to create about an addition. 2.2 percentage points of unemployment.

Table 8
Estimates of Induced Unemployment, United States, 1934–40

	Cumulative Unemployment Attributable to Growth in Unionization	*Public Retirement System*	*Unemployment Compensation Costs*
1934	0.40%	0.00%	0.00%
1935	0.91	0.00	0.00
1936	1.35	0.00	0.43
1937	4.65	0.60	1.09
1938	5.73	0.62	1.58
1939	6.28	0.66	1.55
1940	6.14	0.75	1.58

After four successive years of declining unemployment rates, 1938 saw a sharp rise in that statistic, from 14.3 to 19.0 percent. Various explanations for this reversal have been advanced, including a monetarist one focusing on the Federal Reserve Board's actions in increasing reserve requirements[67] and a fiscalist hypothesis which emphasizes tax rate increases and attempts at balancing the federal budget.[68] These are interesting possibilities, but there is an alternative of a different nature, namely, that the downturn of 1938 was, in large part, the product of movements in money wage rates in the two preceding years, particularly in 1937.[69] In that year, money wage rates

rose by from 10 to 14 percent, depending on the wage measure used. A simple set of calculations illustrates the impact of these changes. If it is assumed that real wage rates had remained at their 1936 levels through 1938, not only would recovery have continued, but the unemployment rate would have been less than 10 percent in 1938.[70]

In retrospect, the von Misesian-classical framework for the interpreting macroeconomic events works remarkably well in explaining the events of the Great Depression. Just how well is indicated in figure 4, which compares the actual yearly unemployment rates with the values predicted by the statistical analysis used to evaluate the von Misesian-classical hypotheses. Clearly, these hypotheses will not only account for the initial decline in employment, but they also suggest why recovery from the Great Depression was so slow and why the economy experienced a recession in 1938.[71]

To summarize, basically, the decade of the 1930s can be characterized as a period in which the role of money wage rates as a determinant of unemployment was denigrated. Businesspeople, economists, and legislators often behaved as if money wage rates could be maintained with impunity at higher than von Misesian-classical equilibrium levels. That wage rates were in excess of equilibrium would seem to be beyond dispute. If the 1929 wage levels are viewed as being equilibrium ones, the data shown in table 9 indicate that wage rates were in substantial disequilibrium throughout the decade, initially largely as the result of exogenous shocks of the productivity and price level variety, but later as the product of changes in labor market institutions that imparted an upward bias to movements in money wage rates. The end result was a decade of misery for those who experienced the unemployment that ensued. However, for the more than 80 percent (on average) of the labor force who had jobs, life was not that bad. Average annual real wages rose by 10 percent between 1929 and 1939, and hourly real wage rates for unskilled labor increased an astounding 51 percent.[72] This occurred during a period in which real per capita gross national product grew by only 2 percent. A strong argument can be made that there was a redistribution of income from one sector of the labor force to another during the 1930s. More importantly, it appears that money wage levels did matter, and that the widespread belief that they did not had a traumatic impact on the U.S. economy and, ultimately, on the character of economic thinking.[73]

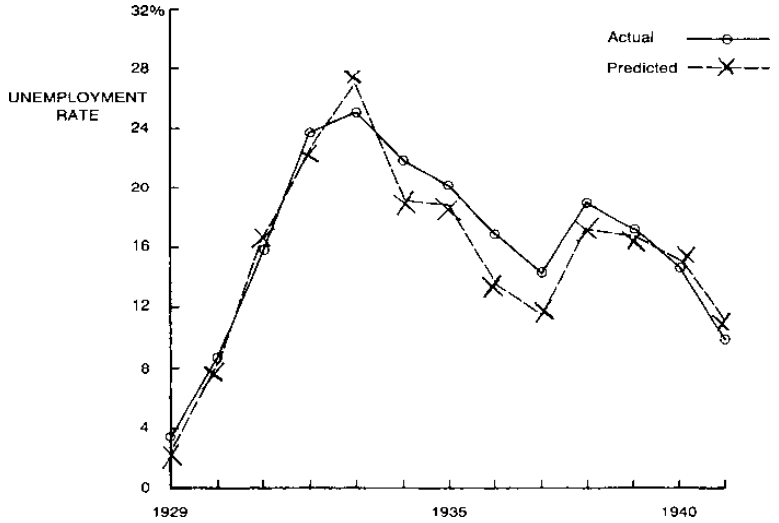

Figure 4. Unemployment during the Great Depression

Table 9
Deviation of Money Wage Rate from Equilibrium, United States, 1929–41

	Annual	*Hourly*
1929	0.0%	0.0%
1930	6.7	5.0
1931	11.4	9.7
1932	18.5	10.8
1933	17.0	19.6
1934	13.2	25.2
1935	8.1	22.4
1936	1.0	16.6
1937	5.1	28.3
1938	4.5	30.1
1939	4.0	28.9
1940	2.6	28.0
1941	4.1	28.5

Note: The equilibrium wage is viewed as the wage that would maintain the 1929 relationships between money wages, productivity, and prices.

Historical Example (3): The Great Depression in Britain

The Great Depression was by most measures nearly as severe in Europe as in the United States. Is the von Misesian framework useful in explaining the European experience? The answer is clearly "Yes," and is confirmed by econometric testing. A large portion of the fluctuations in unemployment in a dozen European nations for which data are available can be explained by a model incorporating measures of changes in wages, prices, and productivity. Of special interest in this regard is the British experience, particularly since the economic environment of Great Britain at this time fostered the intellectual development of the Keynesian macroeconomic orthodoxy that in turn led to the neo-Keynesian or modern progressive view that "wages do not matter." While ultimately the rising unemployment in Britain stemmed from the same labor market disequilibrium conditions that afflicted the United States, the scenario unfolded somewhat differently. To begin, Britain after 1920 was subject to very high unemployment, with the rate falling below 10 percent only in one year, 1927.[74] Yet for all the unemployment, real output rose over the decade at a rate that compared rather favorably with past British historical experience.[75] As Daniel Benjamin and Louis Kolchin have demonstrated, however, the opportunity cost of being unemployed was sharply reduced by extremely generous unemployment insurance payments enacted during this period.[76] Our own statistical analysis leads us to concur with Benjamin and Kolchin's endorsement of the views of Edwin Cannan, Lionel Robbins, Jacques Rueff, and William Beveridge: namely, that the dole caused the unemployment problem, rather than exchange rate policies, deficiencies in British entrepreneurship, or other factors (as argued by Keynes and others).[77] In addition, however, Benjamin Anderson argues cogently that high wages imposed by postwar union militancy aggravated unemployment; our statistical findings are consistent with that viewpoint.[78]

While the Benjamin and Kolchin evidence convincingly explains why unemployment in the late 1920s typically exceeded 10 percent rather than perhaps 3 percent as was the case before 1913, their evidence does not explain why the unemployment rate doubled to more than 20 percent by 1932. The dole was not made more generous; indeed it was reduced as the Depression proceeded. Nor can one explain the rise in the unemployment rate in terms of evidence of underconsumption. It is interesting to note that between 1927 and 1932, when unemployment more than doubled, real consumption expenditures per capita actually

rose.[79]

The von Misesian framework, by contrast, does explain most of the rise in unemployment. As table 10 indicates, however, the proximate causes of the labor market disequilibrium were rather different in Britain. While Hoover and other progressives delayed the adjustment of money wages in the United States, at least a partial wage adjustment eventually occurred that prevented the Depression from being far worse. In Britain, however, money wages were indeed inflexible downward, even in 1932 (explaining the emphasis on wage inflexibility in Keynes's work). Prices, however, were more flexible, falling significantly. Thus, real wages rose sharply, causing unemployment.

Table 10
Wages, Prices, and Productivity, United States and Britain, 1929–38

	Money Wages	*Prices*	*Real Wages*	*Productivity*	*Adjusted Real Wages*[a]
United States[b]					
1929	100	100	100	100	100
1933	73	75	97	83	117
1938	86	82	104	99	105
Great Britain					
1929	100	100	100	100	100
1933	95	85	112	111	101
1938	106	100	106	116	91

Sources: For the United States, see text. Britain: E.H. Phelps Brown and Margaret Browne, *A Century of Pay* (London: Macmillan, 1968); B.R. Mitchell, *Abstract of British Historical Statistics* (Cambridge: Cambridge University Press, 1976).
Note: 1929 = 100.
[a]Real wages divided by productivity.
[b]The annual wage data referred to in text are used.

Britain's comparative wage rigidity no doubt reflected the

fact that it (unlike the United States at this time) had strong anticompetitive elements in labor markets, notably large and militant labor unions which only a few years earlier (1926) had called a general strike. Britain's deflation probably reflected a failure to allow normal increases in the stock of money, which, in turn, was likely the result of a futile attempt by the central bank to deflate, in order to maintain gold convertibility at $4.86 per pound. In light of even greater deflation in the United States, this British attempt was probably doomed, but the resultant unanticipated real wage increases contributed to higher unemployment.

To compare the United States and Britain during the downturn in the early 1930s, in both nations unexpected declines in prices contributed to an enhancement in real wages that aggravated the unemployment problem. In the United States, money wages were strictly downward for an inordinate period owing to the exhortations of Hoover and some members of the industrial elite, but belatedly money wage adjustments occurred. In Britain, however, these adjustments never occurred to any major extent, contributing significantly to the Depression. In Britain, labor productivity rose, in contrast to the United States and in contrast to the commonly accepted notion that downturns inevitably lead to a decline in aggregate demand which in turn causes a decline in productivity as labor adjustments lag output changes.

It is interesting that real output per person rose in Britain in most years in the thirties. Indeed, measured by output changes, there was no real Great Depression in Britain at all. The Depression was largely confined to the labor market. Unlike the United States, Great Britain did not stand completely still with respect to real output growth in the thirties.[80] Unemployment was high in Britain not because of demand deficiencies, but rather because monopoly elements in labor markets combined with inappropriate public policies (deflationary monetary policies and excessive unemployment compensation payments) to cause labor market disequilibrium.

Recovery came quicker and more robustly in Britain than in the United States. Whereas unemployment in Britain by 1937 had returned to the natural or normal rate of the 1920s, in the United States, unemployment was still more than three times the normal rate of the twenties.[81] The reason is comparatively simple: money wages rose much faster in the United States, especially for industrial workers, than in Britain. Indeed, real

wages fell in Britain as the same comparative money wage rigidity combined with prices that rose to the levels prevailing in the twenties. In the United States, widespread new forms of government labor market intervention and growing anticompetitive institutional arrangements (labor unions) caused the real wage increase. Britain either already had these institutions and interventions established or did not institute them on a widespread scale as part of a progressive reform of the economy. As a consequence, Britain had returned to normalcy fully a year before Hitler invaded Poland.

Historical Example (4): The 1960s

Move forward roughly two decades in time. A.W. Phillips has observed his "loops," Richard Lipsey has refined them empirically, and Paul Samuelson and Robert Solow have given the relationship their blessing.[82] The Phillips curve lives and neo-Keynesianism is in its prime as a new U.S. political administration assumes the reins of power in 1961. What follows has often been interpreted, erroneously, as the finest example of "progressive" economic policy formulation at work. In reality, the period 1961–70 is a classic instance of the von Misesian-classical model in operation. Beginning in 1961, the sum of the rates of change in productivity and prices exceeds the rate of change in money wage rates as unanticipated price inflation is introduced into the economy in a systematic fashion. By today's standards, the amount of inflation in the 1960s seems minor. However, the important thing is its unanticipated character. Between 1961 and 1965, the consumer price level rises by about 5 percent and the sum of the rates of change in productivity and prices consistently exceeds the rate of change in money wage rates. By 1965, the productivity-adjusted real wage rate has drifted downward from its 1961 level by 3.3 percent. The decline in the adjusted real wage rate creates a profit wedge in favor of business and produces a 23 percent rise in the corporate profit share of national income.[83]

All this occurred because of the operation of a money illusion effect in labor markets. The real wage rate paid to labor rose less rapidly than did labor's average productivity, redistributing income from employees to employers. The result was an expansion of employment opportunities and a fall in the unemployment rate, with a lag of about one year.[84]

After 1965, though, the money illusion disappeared and the

long-run labor market adjustment mechanism took hold. The rate of change in money wage rates then exceeded the sum of the rates of changes in prices and productivity, despite an escalation of the rate of price inflation to almost 5 percent a year. In 1969, the productivity-adjusted real wage rate surged back to its 1961 level, the corporate profit share of national income fell sharply; in 1970, a year later, the unemployment rate averaged 4.9 percent, 1.4 percentage points higher than in 1969. A graphic representation of these changes is shown in figure 5.

The 1961–69 experience is instructive. It illustrates how a mild burst of unanticipated inflation (about 5 percent between 1961 and 1965) can be used to push the unemployment rate temporarily below its equilibrium level by redistributing real income from workers to employers. However, the reduced unemployment is only temporary. As the longer-term labor market adjustment begins to operate, the income redistribution is reversed and the unemployment rate returns to a level that is more capable of being maintained on a permanent basis, that is, toward the equilibrium, or natural, rate of unemployment.

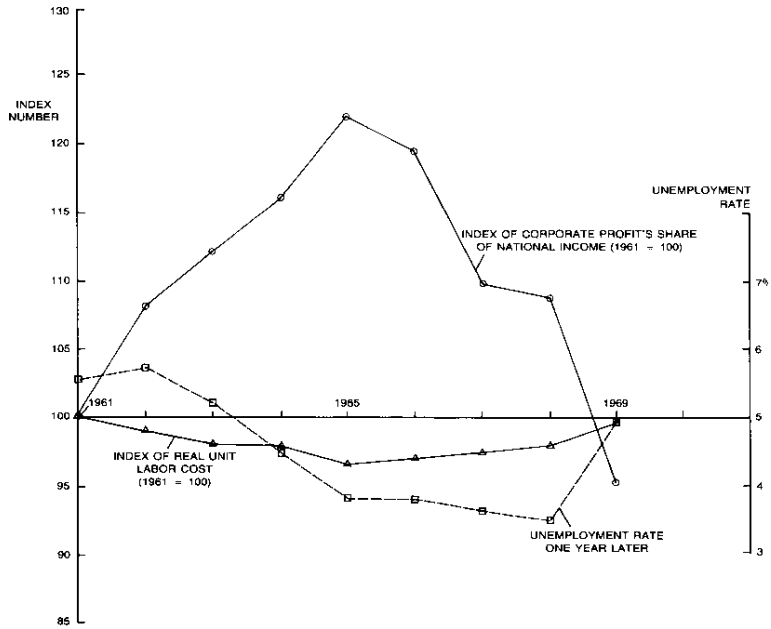

Figure 5. The Economics of the 1960s

Historical Example (5): Stagflation in the 1970s and 1980s

As the United States entered the decade of the 1970s, the phenomenon of stagflation emerged, a state of affairs in which, despite persistent amounts of price inflation, the unemployment rate remained at levels substantially greater than those occurring in the halcyon days of the mid-1960s, contradicting the predictions of neo-Keynesian macroeconomic thinking.[85] However, the events of this period are thoroughly compatible with the von Misesian-classical conception of economic affairs. The formal statistical analysis based on this framework explains the behavior of the unemployment rate in both the 1960s and 1970s quite well in figure 6. More specifically, unemployment rose in 1970 (4.9 percent) and 1971 (5.9 percent) in the face of an upward movement in prices, measured by the implicit price deflator for gross national product (4.5 percent in 1970 and 4.4 percent in 1971). The source of the increase in unemployment was a quickening of the pace of money wage rate increases as inflationary expectations became pervasive in the economy.

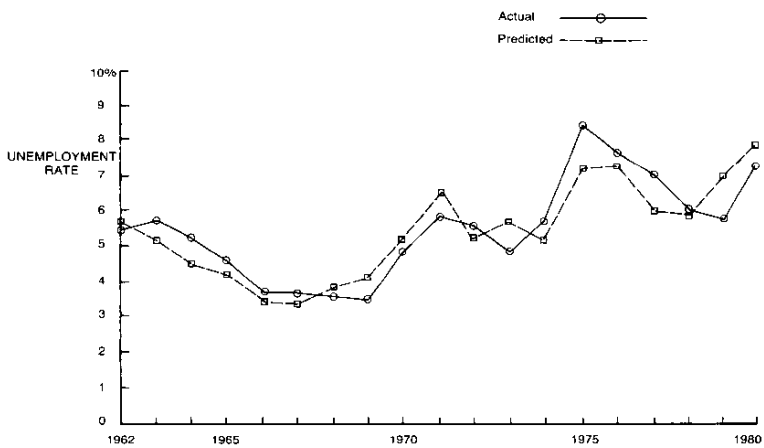

Figure 6. Unemployment, 1962–80

Ordinarily, increases in unemployment produce a marked slowing of the rate of increase in money wage rates, but not in the early 1970s. Between 1969 and 1973, money wage rates advanced at an average of 7.1 percent a year, with a minimum of 6.5 percent in 1972, and a maximum of 8.0 percent in 1973. The steady escalation of the rate of price inflation during the 1960s was by then being reflected in the labor market in the form of pronounced inflationary expectations. All through the 1970s, the rate of increase in money wage rates showed a general upward trend until, at the end of the decade, it exceeded 10 percent.

Further, the rate of increase in money wage rates began to diverge rather systematically from the sum of the rates of change in productivity and prices. Table 11 shows the data for the 1960–69, 1969–73, and 1973–79 business cycles, measuring from peak to peak. These data suggest an upward drift in the equilibrium real wage rate and a corresponding increase in the equilibrium, or natural, rate of unemployment, similar to the shift introduced in the 1930s.[86]

A rather likely explanation for the rise in the equilibrium unemployment rate is that workers' labor supply responses were changing in a fashion that affected the intensity of their job search effort, once they became unemployed, as well as their reservation wage (the wage rate below which they will not accept employment but will prolong the search process). A major factor in this regard is the existence of substantial unemployment compensation programs. The evidence is clear that the availability of unemployment compensation programs is positively related to the level of unemployment.[87] Also, there is a sizable body of research substantiating the premise that there is a predictable work incentive response at the level of the population as a whole to the availability of transfer payment income. Carl Brehm and Thomas Saving demonstrate this with respect to general assistance payments, as does Hirschel Kasper.[88] Further, in a more specific sense, the work of Benjamin and Kolchin, dealing with Britain between the two World Wars, is particularly supportive of this argument.[89] The critical concept is that accessibility to unemployment compensation benefits in the United States has been rising. Over the course of the 1961–69 business cycle, about two-thirds of the civilian labor force was in employment covered by unemployment compensation systems. Contrast this with the almost 80 percent in covered employment in the years 1974–79.[90]

Table 11
Rates of Change in Money Wage Rates, Prices, and Productivity, United States, 1960–79

Money Wage Rates	*Mean Annual Rate of Change in Prices plus*

		Productivity
1960–69	5.3%	5.3%
1969–73	7.1	6.9
1973–79	9.0	8.6

In addition to unemployment compensation benefits, there are other social transfer payment systems to consider. The food stamp program did not exist in the 1960s. By the end of the 1970s, payments under this program amounted to over $6 billion annually.[91] Vendor medical payments more than quadrupled during the 1970s. All told, social welfare expenditures in the United States rose from being about 13 percent of personal income in 1960 to almost one-fourth of personal income at the end of the 1970s.[92] Such a growth in the relative importance of "safety-net" expenditures alters people's attitudes with respect to what is an acceptable job, producing an upward drift in the equilibrium unemployment rate.

Historical Example (6): Fourth Quarter 1982

Beginning in the second quarter of 1981, the rate of price inflation in the United States showed signs of declining. From mid-1981 to mid-1982, the annual inflation rate measured by the implicit price deflator for gross national product was 5.5 percent, compared to 9.5 percent in the previous year.[93] The drop was particularly acute in the first quarter of 1982, when the inflation rate fell to 3.8 percent. In this quarter, the rate of change in money wage rates was 7.3 percent, down somewhat from the previous year, but not by as much as the fall in the rate of price inflation. Since the productivity change in this quarter was -1.0 percent, the productivity-adjusted real wage rate rose sharply, portending a future rise in unemployment. Experimentation reveals that the lag between changes in the productivity-adjusted real wage rate and changes in unemployment is about three quarters. Thus, the behavior of money wages, prices, and productivity in the first quarter 1982, interpreted in the von Misesian-classical framework, predicted a significant rise in unemployment in the fourth quarter of 1982. The reality? The unemployment rate for all civilian workers rose from an average of 10.0 percent in the third quarter to 10.7 percent in the fourth quarter of 1982.[94]

What happened in 1982 is simple. An unanticipated decline in the rate of price inflation produced an upward movement in

the productivity-adjusted real wage rate, just as the unanticipated decline in the price level between 1929 and 1930 produced a similar rise. Subsequent to this, labor market adjustment began to occur and the rate of change in money wage rates slowed from 7.3 percent to 5.6 percent by the fourth quarter of 1982. Accompanied by significant improvements in productivity, this had the effect of actually reducing the productivity-adjusted real wage rate, suggesting a decline in unemployment beginning in the first half of 1983.

Conclusion: Wage Rates Do Matter

The primary theme of this extended article is straightforward: "The level of money wage rates is a vital factor in macroeconomic affairs." This is not a new discovery. At one time, it was the prevailing orthodoxy. Alfred Marshall, Irving Fisher (at times), A.C. Pigou, Lionel Robbins, Jacob Viner, Alvin Hansen rather early on, and even William H. Beveridge, among others, expounded it.[95] But, it fell out of favor in the 1930s and, in the years since, has had little popularity within the mainstream of the economics profession, whose leaders espoused what von Mises called the "progressive" view in his 1953 remarks cited earlier. The view that wages do not matter spread far beyond the economics profession proper. It is a convenient attitude for political figures who do not wish to alienate the labor union establishment; it is one of those intuitively appealing propositions for many intellectuals with little training in economics. Popularity, though, is no substitute for logic and evidence. Evaluated in terms of the latter, the popular view that wages do not matter fares badly and, more importantly, the von Misesian-classical hypotheses appear to offer meaningful and profound insights into the nature of a wide variety of historical incidents in the United States during the twentieth century. It is unfortunate that these insights have largely been ignored, beginning with the 1930s.[96] Much mischief has been done by a failure to appreciate what the von Misesian-classical framework has to contribute, which takes us to a secondary theme of this article.

In recent remarks on the occasion of the Keynes Centenary published in *The Economist*, John R. Hicks makes the remarkable statement, "The ship needs continual steering."[97] This is a classic remark, especially from one who earlier in his career appeared to feel otherwise, in that it embodies quintessentially

the refusal by many intellectuals to recognize the existence of a definable equilibrium or natural rate of unemployment to which the economy continually tends. The existence of this blind spot has had serious consequences. In the United States, it has contributed to the growth of the idea that the U.S. economy can be managed or fine-tuned with great precision in the short run. That philosophy had been confidently extolled at the start of the 1960s and it was clearly the prevailing mood all through that decade and the next.

However, looking back on this era from the perspective of the early 1980s, it is easy to question whether the optimism of the early 1960s was warranted. Compare 1980 to 1961. The unemployment rate in 1961 was 6.7 percent, to that time the highest rate for the post-World War II period. In 1980, it was 7.1 percent and rising, but still lower than it had been in 1975 and 1976. As for inflation, in 1961, the rate of price inflation was 1.0 percent. In 1980, it was 11.1 percent and had been as high as 13.0 percent in 1979. Real economic growth was adequate, but not spectacular by historical standards, running at 3.55 percent per year, just slightly less than the long-term historical average of about 3.6 percent a year. Even the interval of greatest economic growth in this period, 1961–69, showed only a rate of growth of 4.7 percent, compared, for example, to the 6.0 percent that marked a similar period, 1921–29. Or, take the period 1921–41, embracing the Great Depression of the 1930s. The real growth rate in that interval was slightly greater (3.60 percent) than it was in the two decades under discussion here.[98]

The rather mixed record of success in “managing” the U.S. economy between 1961 and 1980 raises the issue of whether, given the existence of an equilibrium rate of unemployment, short-term manipulation and control of economic variables have much to offer from the standpoint of improving economic performance. Perhaps, it may be postulated, the economy would do just as well, or even better, if national economic policy focused more on providing conditions that are conducive to long-term economic growth, rather than emphasizing the control of short-term economic conditions. To explore that possibility, the actual performance of the U.S. economy in the period 1961–80 can be compared with the results of a simulation of the economy that assumes no attempt at managing it in the short run, except for a 2 percent fixed rate of growth in the monetary base.[99]

Table 12

Comparison of Actual Performance of Economy with Simulation Assuming 2 Percent Rate of Growth in Monetary Base, United States, 1961–80

Performance Component	*Actual Performance*	*Simulated Performance*
Real growth rate	3.55%	3.57%
Average unemployment rate	5.22	5.38
Average rate of price inflation	4.73	0.78

A comparison of the results of the simulation with the actual performance of the economy is shown in table 12. The only substantial difference is in the rate of price inflation. Two decades of attempts at short-term management of the U.S. economy produced about 4 percent a year more price inflation with no appreciable effect on unemployment or the real growth rate, the latter two being determined by the underlying structural realities of the economy, that is, the forces that determine the natural rate of unemployment within the context of the von Misesian-classical theoretical framework. With a zero rate of growth in the monetary base, the comparison would be even more striking. Productivity gains would have been reflected in the form of falling prices and there would have been an era of price deflation (over 1 percent a year) rather than price inflation with, of course, little difference in the real level of economic performance.

Lest the foregoing remarks suggest that the rate of price inflation is totally irrelevant to the time path of the real economic magnitudes of a society, it should be emphasized that the simulations that have been reported assume no feedback between the price level and the processes of capital accumulation and technological change. What is evaluated is the usefulness of short-term attempts at managing the economy, given the level of labor productivity in the system. In the longer run, persistent price rises, especially an increasing rate of price inflation, are likely to have negative impacts on levels of saving and,

ultimately, investment, thereby shifting a society to a lower economic growth path. For example, it is probably no accident that over the period 1973–82, productivity in the nonfarm business sector of the U.S. economy increased by less than 5 percent. And, for the last five years of that period, it actually declined very slightly.[100]

One last concluding remark. Von Mises, and others like him, were correct in rejecting the "progressive" view that the level of money wage rates does not matter. Not only is it important but, in conjunction with the levels of prices and productivity, it is the key to understanding patterns of variation in aggregate levels of employment and output. With the aid of the von Misesian-classical analysis, such disparate phenomena as high unemployment rates, low unemployment rates, high unemployment accompanied by inflation (stagflation), low unemployment in unison with inflation, swift economic recoveries, and aborted economic recoveries can be understood in an intelligent fashion. No special economics are needed for each situation. What other theoretical apparatus can make the same claim?

Statistical Appendix

The Unemployment Relationship

The unemployment rate (U) is explained in terms of variations in the levels of money wage rates, prices, and productivity—the factors that determine the productivity-adjusted real wage rate (w_r*). For the period 1901–41, the following relationship has been estimated using multiple regression analysis:

[image]

$$R^2 = 0.92,\ R^2 = 0.91,\ \text{D-W} = 1.25 \quad (1)$$

where $\dot{W}$ denotes the rate of change in money wage rates, π the rate of change in average labor productivity, and P the rate of change in the price level. The subscripts A and H denote, respectively, annual and hourly measures of wages and productivity.[101] The consumer price index is used as the measure of price level changes. The values in parentheses beneath the regression coefficients are the standard errors associated with the coefficients.

For the years 1949–80, a unified data set containing all the

necessary information is available from the Bureau of Labor Statistics. Using it, the following regression equation has been estimated:

[image]

$$R^2 = 0.72, R^2 = 0.68, \text{D-W} = 1.57 \quad (2)$$

In both regressions, w_r^* is expressed as a deviation from the mean value of its index number. In equation 2, all independent variables are lagged one year.

The Money Wage Adjustment Relationship, 1901–41

The von Misesian-classical framework implies that changes in money wage rates will reflect exactly changes in prices and productivity over time. A multiple regression equation embodying these relationships and a variable measuring the fraction of the labor force that is unionized has been estimated for the annual and hourly wage series used in the 1901–41 employment model for those same years. The results are:

[image]

$$R^2 = .82, R^2 = .80, \text{D-W} = 1.66 \quad (3)$$

and

[image]

$$R^2 = .61, R^2 = .58, \text{D-W} = 0.97 \quad (4)$$

where W denotes the level of money wage rates, π is the rate of change in the average productivity of labor, p is the rate of change in the wholesale price index, U^* is the fraction of the labor force that is unionized, and the subscripts H and A indicate, respectively, hourly and annual measures of wages and productivity.[102]

A substantial portion of the work presented here was accomplished while the authors were Liberty Fund Fellows in residence at the Institute for Humane Studies, Menlo Park, California. This article is being expanded considerably into a book, *Unemployment and the State*, to be published by the Pacific

Institute for Public Policy Research in San Francisco.

[1] *Historical Statistics of the United States*, part 1 (Washington, D.C.: 1975), series D-86 for unemployment rates and series F-32 for gross national product. Throughout this article, the standard data series for unemployment rates are used, with recognition that there has been a challenge to the validity of those data during the Great Depression years. See Michael R. Darby, "Three-and-a-Half Million U.S. Employees Have been Mislaid: Or An Explanation of Unemployment, 1934–1941," *Journal of Political Economy* 84, 1976.

[2] A.C. Pigou, *Industrial Fluctuations*, 1st ed. (London: Macmillan, 1927), p. 176.

[3] A.C. Pigou, *Theory of Unemployment* (London: Macmillan, 1933), p. 252. Pigou makes his arguments in a variety of other places. For example, see his "Real and Money Wage Rates in Relation to Unemployment," *Economic Journal* 47, 1937, and "Money Wages in Relation to Unemployment," *Economic Journal* 48, 1938.

[4] It is perhaps something of an exaggeration to ascribe this position entirely to Pigou. A number of other economists espoused similar views. Recognizing that the list is incomplete, we cite a few, beginning with Jacob Viner, *Balanced Deflation, Inflation, or more Depression* (Minneapolis, Minn.: University of Minnesota Press, 1933), especially pp. 12–13. See also W.H. Beveridge, *Causes and Cures of Unemployment* (London: Longmans, Green and Co., 1931), p. 25, and *Unemployment, A Problem of Industry* (London: Longmans, Green and Co., 1930), chapter 16; Wilford I. King, *The Causes of Economic Fluctuations* (New York: Ronald Press Co., 1938), chapter 8; and Lionel Robbins, *The Great Depression* (New York: Macmillan, 1934).

[5] John A. Hobson, *The Economics of Unemployment* (New York: Macmillan, 1923), p. 84.

[6] W.T. Foster and W. Catchings, *Profits* (Boston: Houghton Mifflin, 1925) and *Business Without a Buyer* (Boston: Houghton Mifflin, 1927); and C.H. Douglas, *Credit-Power and Democracy* (London: C. Palmer, 1920) and *Warning Democracy* (London: C.M. Grieve, 1931). A more recent interpretation of the Great Depression with underconsumptionist overtones in John Kenneth Galbraith, *The Great Crash, 1929* (Boston: Houghton Mifflin, 1976).

[7] Murray N. Rothbard, *America's Great Depression* (Princeton, N.J.: Van Nostrand, 1963), p. 45.

[8] Henry Ford, The *New York Times*, November 22, 1929, p.

2.

[9] The *New York Times*, November 22, 1929, p. 1. It is interesting to note that Hoover's inclinations toward underconsumptionism were recognized and, of course, approved, by trade unionists. Witness a statement by the AFL's John P. Frey in 1929 relating to a public works scheme of Hoover's. In effect, Frey argued that the president was in agreement with the AFL's position that depressions were the result of underconsumption and low wages. See Joseph Dorfman, *The Economic Mind in American Civilization* (New York: Viking Press, 1959), vol. 4, pp. 349–50. See also Ronald Radosh, "The Development of the Corporate Ideology of American Labor Leaders, 1914–1933" (doctoral dissertation in history, University of Wisconsin, 1967).

[10] Rothbard, *America's Great Depression*, chapter 8. Not to be ignored is the fact that ideas such as those that enamored Hoover were not as unorthodox among professional economists as sometimes claimed. See J. Ronnie Davis, *The New Economists and the Old Economists* (Ames, Iowa: Iowa State University Press, 1971). Davis presents an interesting array of statements by economists and other academics relating to the issue of the impact of wage reductions on the economy (pp. 94–99).

[11] John M. Keynes, *The General Theory of Employment, Interest and Money* (London: Macmillan, 1936).

[12] Abba P. Lerner, "Mr. Keynes' 'General Theory of Employment, Interest and Money,'" *International Labor Review* 34, 1936. See also W.B. Reddaway, "The General Theory of Employment, Interest and Money," *Economic Record* 12, 1936. A systematic description of the thought of this time is contained in Lawrence R. Klein, *The Keynesian Revolution* (New York: Macmillan, 1947). For a taxonomic description of the various views of the aggregate demand schedule for labor, see Sidney Weintraub, "A Macroeconomic Approach to the Theory of Wages," *American Economic Review* 46, 1956.

[13] Paul M. Sweezy, personal letter to John B. Shelley, dated February 11, 1977, cited in Dana C. Hewins and John B. Shelley, "Sweezy's Kink: Macro Foundations of a Micro Theory," *Economic Inquiry* 17, 1979.

[14] For a description of the various dimensions of the Keynesian critique of classical economics, see Alvin H. Hansen, *A Guide to Keynes* (New York: McGraw-Hill, 1953). More recent appraisals and restatements of the total thrust of Keynesianism are Abba P. Lerner, "From 'The Treatise on Money' to 'The General Theory,'" *Journal of Economic Literature* 12, 1974; and

Hyman P. Minsky, *John Maynard Keynes* (New York: Columbia University Press, 1975).

[15] Peter Temin, *Did Monetary Forces Cause the Great Depression?* (New York: Norton, 1976), p. 140. Temin also attempts to demonstrate that the Great Depression was brought on by an autonomous shift in the consumption function. That view has been challenged (successfully, we think) by Thomas Mayer, "Consumption in the Great Depression," *Journal of Political Economy* 86, 1978.

[16] Keynes, *The General Theory*. In chapter 2, Keynes is very explicit. In reference to the principle that real wages and employment are systematically related, he says, "I am not disputing this vital fact which the classical economists have (rightly) asserted as indefeasible."

[17] Ludwig von Mises, *The Theory of Money and Credit* (New Haven, Conn.: Yale University Press, 1953). Permission granted by Mrs. Margit von Mises. Quotes from 1981 *Liberty Classics*, Indianapolis, edition.

[18] Milton Friedman, "The Role of Monetary Policy," *American Economic Review* 58, 1968.

[19] In particular, see Jerome Stein, *Monetarist, Keynesian, and New Classical Economics* (Cambridge, United Kingdom: B. Blackwell, 1982).

[20] The key assumptions are constant returns to scale and neutral disembodied technical progress.

[21] The underlying statistical models are moderately complex. They are described briefly in the statistical appendix. The logic and structure of the models are more fully developed in Lowell Gallaway and Richard Vedder, *The "Natural" Rate of Unemployment*, staff study, Subcommittee on Monetary and Fiscal Policy, Joint Economic Committee, Congress of the United States (Washington, D.C.: 1982).

[22] *Federal Reserve Bulletin*, various issues.

[23] *Historical Statistics*, series D-86.

[24] The productivity-adjusted real wage rate on a quarterly basis is calculated by dividing the manufacturing wage bill by the product of Federal Reserve Board (not the wage bill) and the index of average labor productivity (not total output) should be used. However, converting the wage bill and the index of industrial production to wage rate and productivity measures involves dividing both of them by the same quantity of labor (L). Since L appears in both the numerator and denominator of the expression for the adjusted real wage rate, it cancels out and can

be ignored.

[25] As calculated from *Historical Statistics*, series D-688.

[26] Ibid,, series D-683 and D-688.

[27] Ibid., series D-724 and Paul A. David and Peter Solar, "A Bicentenary Contribution to the History of the Cost of Living in America" in Paul Uselding, ed., *Research in Economic History*, vol. 2 (Greenwich, Conn.: JAI Press, 1977), pp. 59–60.

[28] Broadus Mitchell, *Depression Decade*, vol. 9, *The Economic History of the United States* (New York: Rinehart, 1947), p. 84; and Arthur Schlesinger, Jr., *The Age of Roosevelt: The Crisis of the Old Order*, 1919–1933 (Boston: Houghton Mifflin, 1957), p. 249. Interestingly, though, some observers of the period disagree with this assessment. For example, Leo Wolman, *Wages in Relation to Economic Recovery* (Chicago: 1931) notes, "[I]t is indeed impossible to recall any past depression of similar intensity and duration in which the wages of prosperity were maintained as long as they have been during the depression of 1930–1931." Similarly, Don Lescohier, "Working Conditions," vol. 3, *History of Labor in the United States, 1896–1932*, John R. Commons and Associates, eds. (New York: Macmillan, 1935) states:

> The first impact of the depression of the "thirties" did not affect the wage structure. . . . In 1921 wage cuts were advocated early in the depression to liquidate labor costs. In 1930–31 they were opposed both by government and by leading employers, in the hope that the maintenance of wage earners' incomes would furnish a market for products and help business recovery. In 1921 they were inaugurated long before business had reached a dangerous position; in 1931 they became common only after a large number of businesses had taken heavy losses. Realization of the reluctance of a large number of employers to cut wages caused wage earners and the public to accept them calmly when they did come, perhaps too calmly (p. 92).

[29] *Historic Statistics*, series D-802, D-813, D-818, and D-824, respectively.

[30] Robbins, *The Great Depression*, p. 224.

[31] Geoffrey H. Moore, ed., *Business Cycle Indicators*, vol. 2, *Basic Data on Cyclical Indicators* (Princeton: Princeton University Press, 1961), p. 129.

[32] Benjamin M. Anderson, *Economics and the Public Welfare* (New York: Van Nostrand, 1949), p. 72.

[33] *Historical Statistics*, series D-839.

[34] Anderson, *Economics*, p. 220.

[35] Without the productivity adjustment, real wages in manufacturing (in 1923 prices) rose from 58.9 cents an hour in December 1929 to 62.5 cents an hour in December 1930. After that, they continued to rise to 66.3 cents an hour in January 1932. Wilford I. King, *Causes of Fluctuations*, pp. 182–83. See also Sol Shaviro, "Wages and Payroll in the Depression, 1929–1933" (unpublished M.A. essay, Columbia University, 1947).

[36] Milton Friedman and Anna J. Schwartz, *A Monetary History of the United States, 1867–1960* (Princeton, N.J.: Princeton University Press, 1963).

[37] U.S. Bureau of the Census, *National Income and Product Accounts of the United States, 1929–1976* (Washington, D.C., Department of Commerce, Bureau of Economic Analysis, 1981), p. 308.

[38] Moore, *Business Cycle Indicators*, p. 106.

[39] Harold Barger, *Outlay and Income in the United States, 1921–1938* (New York: National Bureau of Economic Research, 1942), appendix B, table 28. A smaller profit decline is reported in a less comprehensive survey conducted by the Federal Reserve Bank of New York. See Irving Fisher, *Booms and Depressions: Some First Principles* (New York: Adelphi, 1932), p. 98.

[40] Robbins, *The Great Depression*, p. 205. The data were originally published in *Commercial and Financial Chronicle*.

[41] This is based on the Standard and Poor's index, which fell 32.9 percent from September to November 1929. The second decline actually began in April 1930. A similar pattern is observed using the Dow-Jones index, which fell 39.7 percent from April to December 1930, compared to 37.0 percent from September to November 1929. The recovery in stock prices after November 1929 was robust; the April 1930 Dow-Jones index was the eleventh highest recorded in history, exceeded only in the first ten months of 1929. See Moore, *Cyclical Indicators*, pp. 108–9.

[42] Ben Bernanke, "Nonmonetary Effects of the Financial Crisis in the Propagation of the Great Depression," *American Economic Review*, June 1983, p. 261.

[43] Ibid., p. 262.

[44] Federal debt declined about $700 million in both 1929 and 1930, but rose more than $600 million in 1931. See

Historical Statistics, series Y-493.

[45] If one uses the consumer price index to measure price changes, real interest rates on bank loans in 1929 averaged about 6 percent, rising to about 7.7 percent in 1930, and to about 13 percent in 1931. This is based solely on current year price changes. A real interest rate model using weighted averages of past price changes would show a smaller rise. Interest rate data are based on Federal Reserve System reports. See Moore, *Cyclical Indicators*, p. 154.

[46] *Historical Statistics*, series F-54.

[47] Friedman and Schwartz, *A Monetary History*, table A-1, pp. 712–13.

[48] Ibid., table B-3, p. 803.

[49] Ibid. The deposit/currency ratio fell from 11.57 in October 1929, to 4.44 in March 1933, a decline of 7.13 points, with 3.87 points (54 percent) of that decline occurring between October 1930 and October 1931.

[50] Ibid., pp. 308–13.

[51] The price would fall to $750 only for a consol, a bond with no maturity. Short-term bonds would sell at a small discount from face value because the owner of the bond would receive the face value at maturity.

[52] *Historic Statistics*, series X-581.

[53] Capital accounts were $10,372 million. Ibid., series X-587.

[54] Most nominal interest rate series show little change in the early years of the Great Depression, and, indeed, many show some decline. This masks two phenomena, however. First, declining commodity prices during the period led to rising real interest rates over time. Second, most interest rate series report actual transactions, probably ignoring a growing number of customers who were crowded out because of sharply rising risk premiums. It is possible that interest rates demanded of some average potential borrower rose, even though actual interest rates reflected in transactions did not rise.

[55] Data from U.S. Bureau of Economic Analysis, *Fixed Residential Business Capital in the United States, 1929–1973* (Washington, D.C.: Department of Commerce, 1974), reported in *Historical Statistics*. The exact data series employed is F-484 for producers' equipment valued at 1958 prices. This series falls from a 1929 level of $74.1 billion to $59.2 billion in 1933. Simon Kuznets, *Capital in the American Economy* (Princeton, N.J.: Princeton University Press, 1961), table R-5, p. 492, concludes

that net capital formation was almost zero in 1931, and decidedly negative in the years 1932–34.

[56] Use of the consumer price index yields lower-bound measures of the extent of wage disequilibrium. This index fell substantially less than did the wholesale price index during the Great Depression. Consumer prices (*Historical Statistics*, series E-135) fell 24.3 percent, while wholesale prices (Ibid., series E-23) declined by 30.8 percent.

[57] The codes in question were the blanket codes introduced pending the development of the specific industry codes. See David A. Shannon, *Between the Wars: America, 1919–1941* (Boston: Houghton Mifflin, 1965), pp. 154–55. See also Michael M. Weinstein, "Some Macroeconomic Impacts of the National Industrial Recovery Act, 1933–1935," chapter 14, pp. 262–81, in Karl Brunner, ed., *The Great Depression Revisited* (Boston: Kluwer/Nijhoff, 1981) and *Recovery and Redistribution under the NIRA* (Amsterdam: North-Holland Publication Company, 1980).

[58] *Historical Statistics*, series D-802.

[59] Section 7(a) of the National Industrial Recovery Act was added to allay the fears of labor leaders that industry would act cooperatively against labor. It required that every industry code developed under the act include provisions guaranteeing the right of employees to organize and bargain collectively and that employees could not be required as a condition of employment to either join a company union or refrain from joining a union of their choice.

[60] After the National Industrial Recovery Act was declared unconstitutional by the Supreme Court, the provisions of section 7(a) were reenacted in a more detailed fashion, including the establishment of an administrative machinery to police the law, in the National Labor Relations Act of 1935.

[61] Probably the best known study of this question is H. Gregg Lewis, *Unionism and Relative Wages in the United States* (Chicago: University of Chicago Press, 1963). Also worth noting are John Maher, "Union, Non-Union Wage Differentials," *American Economic Review* 46, 1956; and Adrian W. Throop, "The Union-Non-Union Wage Differential and Cost-Push Inflation," *American Economic Review* 58, 1968.

[62] The basic data employed in these calculations are taken from Lowell E. Gallaway, "Trade Unionism, Inflation, and Unemployment" in George Horwich, ed., *Monetary Process and Policy: A Symposium* (Homewood, Ill.: R.D. Irwin, 1967), pp. 60–

66. At first blush, the indication of a significant change in what we call the union/nonunion wage differential appears to conflict with Lewis's findings in *Unionism and Relative Wages*, which suggest a stable union/nonunion differential over time. However, we have defined our differential in terms of traditionally organized industries compared to traditionally unorganized ones. Actually, there are substantial numbers of nonunion members in the work force of what we have called the unionized industries. For example, in 1920, when trade union membership peaked at over five million, only about one-fourth of the work force in our unionized industries were union members. See Leo Wolman, *Ebb and Flow in Trade Unionism* (New York: National Bureau of Economic Research, 1936). They made up about 90 percent of union membership, though. By contrast, on the eve of World War II, when union membership had recovered to over ten million (compared to its 1933 low of less than three million), union workers were approaching accounting for one-half the work force in our unionized industries. In fact, what our wage differential measure attempts to capture is the impact of the changing volume of unionism on the interindustry wage structure and, ultimately, on the average wage rate. Actually, we feel that we may have underestimated the union impact by employing a relative wage differential measure rather than focusing on the absolute differential (in real terms) between the unionized and nonunionized areas. For a theoretical discussion of why the relative wage criterion may not be appropriate, see Gallaway, "Trade Unionism." If we had used the absolute differential for purposes of this evaluation, the effect of increases in union membership on the interindustry wage structure would have been even more dramatic.

[63] The detailed statistical analysis is described in the statistical appendix to this article.

[64] This is done by estimating the impact of growth in union membership on wage levels and then translating the unionization-induced wage shifts into changes in unemployment.

[65] Total supplements are from *Historical Statistics*, series D-893. Average annual earnings from ibid., series D-722. See also Albert Rees, *New Measures of Wage-Earner Compensation in Manufacturing, 1914–1957*, occasional paper 75 (Princeton, N.J.: National Bureau of Economic Research, 1960).

[66] Detailed supplement data are from *Historical Statistics*, series D-907 and D-908. The percent increase in the total wage bill attributable to the increase in a particular supplement is

calculated and the impact of such an increase on unemployment is estimated using the statistical relationships reported in the statistical appendix to this article.

[67] The strongest proponents of a monetary explanation for the recession of 1937–38 are Friedman and Schwartz, *A Monetary History*.

[68] There is an abundance of literature that suggests a fiscal policy explanation for the downturn in 1938. See E. Cary Brown, "Fiscal Policy in the 'Thirties': A Reappraisal," *American Economic Review* 46, 1956; Alvin H. Hansen, *Fiscal Policy and Business Cycles* (New York: W.W. Norton, 1941); Arthur Smithies, "The American Economy in the Thirties," *American Economic Review* 36, 1946; and Kenneth D. Roose, "The Role of Net Government Contribution to Income in the Recession and Revival of 1937–1938 " *Journal of Finance*, 6, 1951. Roose's views are also stated in his *Economics of Recession and Revival* (New Haven, Conn.: Yale University Press, 1954).

[69] Interestingly, Roose, *Economics of Recession*, also expresses views that are consistent with our findings. He comments, "Most important of all, however, was the reduced profitability of investment, beginning in the first quarter or 1937. This resulted from increases in costs, in which labor played a prominent part." (pp. 238–39).

[70] This estimate is based on calculations made using the statistical model of unemployment cited earlier.

[71] It is interesting to note that the statistical model of unemployment that we present systematically underpredicts the level of unemployment during the period in which the growth in wage supplements is most pronounced, namely 1936–38. Since the supplements are not included in the wage measure used to predict unemployment, this may account for the underpredictions in these years.

[72] King, *Causes of Fluctuations*, pp. 80–81, noted this phenomenon rather early, remarking that, "all through the depression, those who were fortunate enough to have jobs were, on the average, earning more money per hour than they were in 1929."

[73] The total dismissal of the importance of the money wage rate adjustment mechanism became complete during World War II. In Britain, for example, Sir William Beveridge, cited earlier as supporting the classical view of the world, swung full circle and embraced the aggregate demand notions, especially the idea that government spending could produce full

employment. In his "The Government's Employment Policy," *Economic Journal*, June-September 1944, pp. 161–62 (a commentary on the government's White Paper of May 26, 1944), he refers to a statement from Winston Churchill's 1929 budget speech as chancellor of the exchequer, to wit: "It is the orthodox Treasury dogma steadfastly held that, whatever might be the political and social advantages, very little additional employment and no permanent additional employment can, in fact, and as a general rule, be created by State borrowing and State expenditure," by commenting, "By the renewed experience of full employment the dogma has been consumed by the fires of war, and the White Paper may be regarded as a ceremonial scattering of its ashes."

Also worth noting is the dialog among Keynes, Hayek, and Frank Graham centering on the usefulness of a commodity standard of money to replace the now defunct gold standard. It begins with Hayek, "A Commodity Reserve Currency," *Economic Journal*, June-September 1943, pp. 176–84, and Keynes's remarks, "The Objective of International Price Stability," ibid., pp. 185–87. Keynes takes the position that the level of money wage rates must be taken as given and everything else adjusted to it. Frank Graham, "Keynes vs. Hayek on a Commodity Reserve Currency," *Economic Journal*, December 1944, pp. 422–29, takes up the issue again and Keynes's view is restated in "A Note by Lord Keynes," ibid., pp. 429–30.

In the United States, one of the classic statements of the "new" economics is Franco Modigliani, "Liquidity Preference and the Theory of Interest and Money," *Econometrica*, January 1944, pp. 45–88. Also, Alvin Hansen has reversed his position and is on his way to becoming the great interpreter of Keynes for a generation of graduate students via his *A Guide to Keynes*. Of course, it could be argued that the weight of the empirical evidence was on the side of Keynes in this issue. Not so. John Dunlap, "The Movement of Real and Money Wage Rates," *Economic Journal*, September 1938, pp. 413–34, reports evidence inconsistent with the Keynesian position that changes in real wages rate cannot be produced by changes in money wage rates. Admittedly, Dunlop attempts to explain away the data as somehow reflecting other things. However, Lorie Tarshis, "Changes in Real and Money Wages," *Economic Journal*, March 1939, pp. 150–54, reports even stronger evidence along these lines. By the end of World War II, though, Keynesianism was sufficiently in the ascendancy to permit the summary

disregarding of this evidence. Lawrence Klein, *The Keynesian Revolution*, in reflecting on Tarshis's article, ponders whether "Keynes was backing the wrong horse" (p. 107). However, he resolved his dilemma by rather cavalierly stating in the very next sentence, "Our main concern . . . . is not with the empirical problem but with the theoretical relation of wage cuts to unemployment."

[74] The rate was 9.7 percent in 1927, while the median annual rate for the years 1921–29 was 11.05 percent. On unemployment statistics, see Department of Employment and Productivity, *British Labour Statistics: Historical Abstract 1886–1968* (London: H.M. Stationery Off., 1971).

[75] Real output rose 2.75 percent a year from 1921 to 1929, and even 1.66 percent annually from the boom year of 1920 to relatively depressed 1930; by contrast, real growth per annum from 1900 to 1913 was only 1.65 percent. These calculations are derived from C.H. Feinstein, *National Income, Expenditure and Output of the United Kingdom, 1855–1965* (Cambridge, U.K.: Cambridge, University Press, 1972).

[76] Daniel K. Benjamin and Levis A. Kolchin, "Searching for an Explanation of Unemployment in Interwar Britain," *Journal of Political Economy*, June 1979.

[77] See Edwin Cannan, "The Problem of Unemployment," *Economic Journal*, March 1930; Robbins, *The Great Depression*; Jacques Rueff, "Ces variations du chomage en Angleterre," *Revue politique et parliamentaire*, December 10, 1925; William Beveridge, *The Causes and Cures* and *Unemployment, A Problem*. This list is by no means exhaustive. These persons and others recognized that not only did unemployment insurance payments raise the opportunity cost of working, but they inspired union militancy and, accordingly, produced higher money wage rates. Among the other writers, see, especially, A.C. Pigou, "Wage Policy and Unemployment," *Economic Journal*, September 1927, and John R. Hicks, *The Theory of Wages* (London: Macmillan, 1932). A prominent politician who believed unemployment compensation raised unemployment was Winston Churchill. See his article, "The Dole," *Saturday Evening Post*, March 29, 1930.

On the view of Keynes and other economists, see Keith J. Hancock, "Unemployment and the Economists in the 1920's," *Economica*, November 1930. See also Keynes, "Some Consequences of the Economic Report," *New Statesman and Nation*, August 15, 1931.

[78] Anderson, *Economics*. Like the authors in the previous

footnote, Anderson argued that unemployment insurance payments raised wages.

[79] On consumption spending, see Feinstein, *National Income*; Richard Stone, et al., *The Measurement of Consumers' Expenditures and Behaviour in the United Kingdom, 1920*-1938, two volumes (Cambridge, U.K.: Cambridge University Press, 1954). For statistics dealing with a variety of economic variables in this period, including consumption, see B.R. Mitchell, *Abstract of British Historical Statistics* (Cambridge, U.K.: Cambridge University Press, 1976).

[80] That is actually an understatement. Output in 1939 was more than 21 percent higher than in 1929, with the per annum growth rate of 1.94 percent being high by historical standards. Real gross national product fell only 6 percent from 1929 to the trough in 1932. See Feinstein, *National Income*.

[81] The 1937 British unemployment rate of 10.8 percent was actually slightly below the median rate of the 1920s. See Department of Employment and Productivity, *British Labour Statistics*. The U.S. unemployment rate of 14.3 percent in 1937 compares with a median rate for the 1920's of 3.75 percent. See *Historical Statistics*, series D-86.

[82] A.W. Phillips, "The Relation between Unemployment and the Rate of Change of Money Wage Rates in the United Kingdom, 1861–1957," *Economica*, N.S., vol. 25, 1958; Richard G. Lipsey, "The Relation between Unemployment and the Rate of Change in Money Wage Rates in the United Kingdom, 1862–1957: A Further Analysis," *Economica*, N.S. vol. 27, 1960; and Paul A. Samuelson and Robert M. Solow, "Analytical Aspects of Anti-inflationary Policy," *American Economic Review* 50, 1960.

[83] The corporate profit share of national income rose from 11.33 percent in 1961 to 13.98 percent in 1965. *Historical Statistics*, series F-163 and F-179.

[84] The choice of a one-year lag produces the best explanation for unemployment variations in the post-World War II period. The logic of some type of lag is appealing. Employers may well respond to increasing productivity-adjusted real wage rates by searching for alternatives other than the laying off of a labor force that is experienced in its tasks. Also, once it becomes obvious that labor force reductions are necessary, it is tempting to accomplish them through a process of attrition, by simply not replacing workers who quit, die, or retire. The concept of a lag is certainly consistent with the arguments presented in Walter Oi, "Labor as a Quasi-Fixed Factor," *Journal of Political Economy* 70,

1962.

[85] Fortunately for the defenders of the neo-Keynesian paradigm, the inflation of the period could be explained away as a phenomenon associated with the movements of specific commodity prices, especially oil. However, these are movements in *relative* prices and not in the overall price level.

[86] Estimates reported in Gallaway and Vedder, *"Natural" Rate,* indicate that the equilibrium rate of unemployment was about 4.4 percent in the 1960s and 5.7 percent in the early 1970s, standing at 6.6 percent by the end of that decade.

[87] Some of the representative studies of this subject are the early work of Gene Chapin, "Unemployment Insurance, Job Search, and the Demand for Leisure," *Western Economic Journal* 9, 1971; and, later, Martin Feldstein, "Unemployment Compensation: Adverse Incentives and Distributional Anomalies," *National Tax Journal* 27, 1974.

[88] C.T. Brehm and T.R. Saving, "The Demand for General Assistance Payments," *American Economic Review*, December 1964, pp. 1002–18; and Hirschel Kasper, "Welfare Payments and Work Incentives: Some Determinants of the Rates of General Assistance Payments," *Journal of Human Resources*, 1968. See also Robert E. Hall, "Effects of the Experimental Negative Income Tax on Labor Supply" in Joseph A. Pechman and Michael Timpane, eds., *Work Incentives and Income Guarantees: The New Jersey Negative Income Tax Experiment* (Washington, D.C.: 1975); and Lowell E. Gallaway, "Negative Income Tax Rates and the Elimination of Poverty," *National Tax Journal*, September 1966, pp. 298–307, for further evidence dealing with the question of work incentives.

[89] Benjamin and Kolchin, "Unemployment in Interwar Britain."

[90] U.S. Employment and Training Administration.

[91] U.S. Social Security Administration.

[92] Total social welfare expenditure data are from the Social Security Administration. Personal income data are from the Department of Commerce.

[93] Joint Economic Committee of the Congress of the United States, *Economic Indicators* (Washington, D.C.: March 1983), p. 16.

[94] Ibid., p. 12.

[95] Alfred Marshall, *Principles of Economics* (London: Macmillan, 1920); Irving Fisher, *Booms and Depressions*; A.C. Pigou, *Theory of Unemployment*; Lionel Robbins, *The Great*

Depression; Jacob Viner, *Balanced Deflation*; A.H. Hansen, *Business Cycle Theories* (Boston: 1927); and W.H. Beveridge, *Unemployment, A Problem*. For a thorough discussion of the thinking about business cycles prior to, during, and immediately after the Great Depression, see Gottfried von Haberler, *Prosperity and Depression* (Cambridge, Mass.: Harvard University Press, 1958).

[96] Not everyone has ignored these notions. In addition to von Mises, it should be noted that Friedrich Hayek, *Unemployment and Monetary Policy* (San Francisco: Cato Institute, 1979) and W.H. Hutt, *The Keynesian Episode: A Reassessment* (Indianapolis: Liberty Press, 1979) have continued to propound what we have called the von Misesian-classical view of macroeconomics. We especially call attention to Hutt's views on the general subject of the underconsumptionist position, which are well summarized in his "Illustration of Keynesianism" taken from his *Politically Impossible* (London: Institute of Economic Affairs, 1971). His specific view on Hoover and wage reductions was related to the authors in private dinner conversation.

[97] John R. Hicks, "A Sceptical Follower," *The Economist*, June 18, 1983, p. 19.

[98] The growth rates are calculated from the real gross national product statistics reported by the U.S. Department of Commerce, Bureau of Economic Analysis.

[99] The magnitude employed is the adjusted monetary base which consists of (1) reserve accounts of financial institutions at Federal Reserve Banks, (2) currency in circulation (currency held by the public and in the vaults of all depository institutions), and (3) an adjustment for reserve requirement rate changes. A detailed description of the simulation can be found in Gallaway and Vedder, *"Natural" Rate*.

[100] *Economic Indicators*, p. 16.

[101] The data sources are *Historical Statistics*, series D-683, D-688, and D-724, and David and Solar, ibid.

[102] The data source for the trade union membership variable is *Historical Statistics*, series D-948.

A Critique of Monetarist and Austrian Doctrines on the Utility and Value of Money

Richard H. Timberlake, Jr.

> From the first, the Austrians entertained a wish . . . to apply their marginal utility theory to the case of money—which both the enemies of this theory and some of its foremost sponsors . . . declared to be impossible.
>
> —Joseph A. Schumpeter[1]

The current epoch of inflation over much of the world has emphasized yet again the acute relationship between the quantity of national moneys and domestic price levels. Inflation has also underscored the inadequacy of the Keynesian model in dealing with money-price level relationships. Keynes for the most part disposed of price level movements by assuming prices constant. His focus was on employment and interest rates (Keynes, 1936). Keynesianism swept the economics profession at a time when inflation was not a problem. Therefore, economists who embraced Keynesian doctrine as a *general* theory have had a less-than-satisfactory framework for treating price level changes.

Keynes's great intellectual victory in the middle half of the twentieth century has obscured at least two major doctrines that dealt specifically and directly with the quantity of money and prices. One was early monetarist theory, then known as the quantity theory of money. This doctrine was developed by Irving Fisher, E.W. Kemmerer, and others in the United States. In Britain, similar analysis resulted from the works of Edwin Cannan, A.C. Pigou, and economists of the Cambridge school, who were beneficiaries of the earlier classical works of John Stuart Mill, Henry Thornton, and David Ricardo. The other development was the Austrian theory of money initiated by Carl Menger, and continued and enlarged upon by Ludwig von Mises, Friedrich Hayek, Murray Rothbard, and other economists in the Austro-German tradition. These two doctrines shared important

similarities and registered some differences, but both were fundamentally distinct from the Keynesian theory that has eclipsed them. Neglect of these doctrines has left economics less rich than it otherwise would be, and the doctrines themselves have had less impact on current theory and policy than they would have had if they had focused their attention on points of agreement and come to terms with their differences.

This article explores the fundamental operational concepts in monetarist and Austrian theories that bear on the utility and value of money, in order to determine where they are compatible and to assess the logic and significance of their differences.

Money evolved from commodities that were not money. Self-sufficient households, when they began to specialize, first bartered goods and services directly. They then learned to barter indirectly for items they did not want, but which they knew they could use subsequently in other exchanges for things they did want. These indirect bartering devices became media of exchange.

Primitive commodity moneys were varied and innovative (Jevons, 1898, 20–28). The more widely a given commodity money circulated, the more utility it had as a money and the more valuable it tended to become in terms of other goods. Carl Menger observed that, "Money commodities came to have utility as money beyond their utilities as commodities because they brought people closer to their ultimate goals of getting the goods and services they wanted" (1981, 262). This evolution is so inferentially logical that it hardly needs empirical substantiation. If it had not occurred, any historian could have invented it.

In the course of time, however, even the most refined commodity moneys gave way to token representations in order to economize their costs as media of exchange; and finally—if "finally" is now—the commodity itself has faded from the scene. Economic systems have been left with only paper and bookkeeping representations that are initiated and accepted under the coercive authority of the state.

The concept of subjective utility in economic analysis was introduced by Carl Menger, and, contemporaneously, by the English economist William Stanley Jevons and the French economist Leon Walras in the great triple coincidence of economic thought (Schumpeter, 1954, 825–29, 1055, passim). Menger developed a table showing assumed cardinal values for the declining marginal utilities often economic goods as

envisioned by some economic man. However, he did not defend the simplifying assumption of cardinality for the utility schedule, nor did he include either an income constraint or a utility schedule for money (Menger, 1981, 125–28).

The inability to discriminate conceptually between commodity utility and monetary utility is evident in all the works on money in this period. Jevons, for example, wrote correctly:

> Since money has to be exchanged for valuable goods, it should itself possess value, and it must therefore have utility as the basis of value. Money . . . is only received to be passed on. The utility of the substance for other purposes must have been the prior condition for its employment as money. . . . It is doubtful whether the most powerful government could oblige its subjects to accept and circulate as money a worthless substance which they had no other motive for receiving (1898, 31).

Jevons's statement shows how difficult it was to penetrate the veil of the commodity in order to perceive the special utility of money. This analytic difficulty often led to the observation: "Money itself has no marginal utility, since it is not intended for consumption" (Wicksell, 1935, 20).

Ludwig von Mises came closer than any other economist of the time to a valid interpretation of the utility of money. He first wrote: "The subjective value [utility] of money is conditioned by its objective *exchange* value (emphasis added)." So far so good. However, he then restated the conventional error:

> Money has no utility other than that arising from the possibility of obtaining other economic goods for it. . . . This peculiarity of the value of money can also be expressed by saying that, as far as the individual is concerned, money has no use-value [utility] at all, but only subjective exchange value (1980, 118, 130).

Von Mises's statement acknowledged the necessity for money to have utility—that it is an economic item to be brought into the panorama of market evaluation. But since its perceived utility was locked into its purchasing power for buying other things, the contradiction followed that money has no utility of its

own.

Three factors probably contributed to this widely accepted view. First, at the time this issue came into economists' thinking, almost all money was commodity money, or pretended to be. Since some commodity first gave monetary life to any commodity money, the supposition followed that money without its redemptive commodity could not have value of its own and certainly could not have utility. Second, the awareness that the nominal quantity of money units could change without changing the real value of the total stock of money seemed to discourage the notion that the total stock is real capital, regardless of the fact that the size of the nominal stock is irrelevant to the value of the real stock. Third, since money "only" existed to be exchanged for something else, its utility had to be something akin to an imaginary number. It was derived from the utilities of the things it could buy. To their everlasting credit, the Austrians insisted on bringing money into the general theory of value by emphasizing a demand function for money, but they lacked a utility theory of money *qua* money with which to complete the analysis.

Schumpeter correctly interpreted the Austrian view to mean that the exchange value of money—what it will buy—must be known before the individual can assign any utility to a unit of money: "It is therefore impossible to do in the case of money what can be done in every other case, namely, to deduce its exchange value from . . . schedules of marginal utility: to attempt to do so seems to spell circular reasoning" (1954, 1090). Indeed, this "problem" came to be known as the "Austrian circle" (Rothbard, 1976, 167).

Von Mises recognized and accepted the sequence of thought that led into the Austrian circle, and he tried to break out of it with his "regression theorem." He argued that money's value and utility today could be traced back incrementally day-by-day, year-by-year, decade-by-decade "in temporal regression" to the time when the money was a commodity money; then, as summarized by Murray Rothbard, "to the last day of barter, at which point the temporal element in the demand for the money commodity disappears, and the causal forces in the current demand and purchasing power of money are fully and completely explained."[2] Rothbard claims that this theorem "fully explains the *current* demand for money and integrates the theory of money with the theory of marginal utility" (Rothbard, 1976, 167–69, emphasis added; von Mises, 1980, 131–36).

Don Patinkin rejected the circularity argument by noting that it does not distinguish between "demand" as a schedule of alternative quantities, and "demand" as an amount demanded:

> It is true that the amount demanded of money [by an individual or by all individuals]—as well as of any other good—depends upon prices. Nevertheless, it is also true that the equilibrium prices depend upon the demand functions. The "circularity charge" is simply a denial of this elementary distinction (1965, 116).[3]

Patinkin's observation does not quite hit the mark. Von Mises did not confuse "demand" and "quantity demanded." Nonetheless, this paradox is an illusion and the regression theorem is an awkward and useless contrivance which does nothing more than reargue the origin of commodity money. All these "problems" result from not recognizing money's utility *as money*, and from a confusion of utility and value. Money does not have utility "only" to buy other things. It has the utility of being the exclusive vehicle for allocating expenditures of income over time. This role should be analyzed as one factor contributing to the terms on which money is exchanged for goods and services (that is, its value). If fiat paper money were dumped into a primitive barter economy and forced into acceptance by the impress of legal tender, its price would be established in terms of other things because of the monetary function it fulfilled and because its quantity was limited. Note that the coercive authority that would force acceptance of the money by means of the legal tender power cannot fix the terms on which the money is exchanged. The price level and the corresponding "price" of money—expressed by the inversion of the price level—are determined by the number of money units imposed on the economy, the efficacy of the payments system as a means of metering payments over time (that is, on the monetary utility of money), the stability of the economic environment, the productivity of enterprise, *et hoc genus omne*.

A memorable article that dealt definitively with this issue was written by W.H. Hutt in 1954. Hutt first reviewed the state of utility theory with respect to money and found it wanting, even though he, too, thought von Mises had come the closest to a correct interpretation. Money has utility, Hutt explained, because it is a "wealth-unit *ready* to be activated." It also has the property of being the most easily adjusted asset in case an excess quantity

accumulates. It yields service, and therefore an implicit rate of return to its owners. Adam Smith, Hutt observed, had written that money was unproductive because it was like a highway (Hutt, 1954, 217). "But Mises," Hutt declared, "would insist that a highway *is* productive" (von Mises, 1980, 170). He cited a passage from von Mises that is notable both for its insight and also because it contradicts von Mises's previous assertion that "money has no use-value at all (Hutt, 1954, 218)." Wrote von Mises:

> It must be recognized that from the economic point of view there is no such thing as money being idle. All money, whether in reserves or literally in circulation, . . . is devoted in exactly the same way to the performance of a monetary function. . . . All money . . . lies in some individual's stock ready for eventual use. . . . What is called storing money is a way of using wealth (von Mises, 1980, 170).

Hutt contributed important details to the utility argument. Money does *not* do its work by circulating, he stated.

> If the work of money is circulation, then money is always "idle" because transactions are quasi-instantaneous. . . . The transfer [of money] itself occupies a mere moment whilst the services which flow from the possession of money are continuous over time. The essence of all these services is *availability*.

Real money units are thus like a real piano, which has utility because it is ready to be played even when it is silent. Money assets, Hutt emphasized, are "subject to the same laws of value as other scarce things [and] are equally productive in all intelligible senses" (1954, 218–20).

Irving Fisher was as ambivalent as von Mises with respect to the utility of money. In *The Purchasing Power of Money*, published just the year before von Mises's *Theory of Money and Credit*, Fisher wrote that marginal utilities, unlike prices, are "not only impossible to measure, but are unequal and vary unequally among individuals." He recognized that money has marginal utility, which would vary directly with the purchasing power of money "*if* all prices and *all money incomes* change in the same

ratio" (1911, 220).

Fisher, similar to von Mises, fell into the error of not allowing money to have its own utility because he (of all people) neglected money's real value when analyzing its utility. "The quantity theory of money . . . rests," he wrote, ". . . upon the fundamental peculiarity which money alone of all goods possesses—the fact that it has no power to satisfy human wants except a power to purchase things which do have such power" (1911, 32).

What Fisher, von Mises, and others did not recognize explicitly was that this "exception" to money's "uselessness" was all important. It can be brought into focus most meaningfully by changing the statement, "Money can only be used to buy other things," to, "Money is the exclusive means for buying other things." These statements are similar; but one describes money's function with the bemeaning adverb "only," while the other uses the elite adjective "exclusive." In his *Rate of Interest* written in 1907, Fisher offered a view of money's utility very similar to von Mises's more profound expression:

> The most salable of all properties is, of course, money and as Carl Menger pointed out, it is precisely this salability which makes it money. The *convenience* of surely being able, without any previous preparation, to dispose of it for any exchange . . . is itself a sufficient return upon the capital which a man seems to keep idle in money form. This liquidity of our cash balance takes the place of any rate of interest in the ordinary sense of the word (1907, 212; also cited in Patinkin, 1965, 580; emphasis added).

Fisher's notion of an implicit return on money held is identical to Hutt's "yield." Patinkin noted the ambiguity in the two passages from Fisher and the fact that Fisher wrote the meaningful interpretation of monetary utility in 1907, and the conventionally incorrect view four years later in 1911.

All this emphasis on the utility of money in the late nineteenth and early twentieth centuries should have culminated in an epic work on the subject. However, if the "culmination" of monetary economics was Keynes's *General Theory*, the marginal utility of money is conspicuous by its absence. It appeared in only one paragraph in which Keynes treated the general

properties of money. Besides the fact that the supply of money is completely inelastic under a fiat paper money system, Keynes wrote, the demand for money has an elasticity of substitution of zero,

> which means that as the exchange value of money rises [the price level falls] there is no tendency to substitute some other factor for it. . . . This [inelasticity] follows from the peculiarity of money that its utility is solely derived from its exchange-value, so that the two rise and fall *pari passu*, with the result that as the exchange-value of money rises there is no motive or tendency . . . to substitute some other factor for it (1936, 231).

This treatment has money held in a portfolio of interest-earning assets, and *not* as an exchange medium appreciating to the point where it would be too valuable to be held any longer and would be "sold."

The fallacy in Keynes's argument lies in the clause, "its utility is solely *derived* from its purchasing power" (emphasis added). The utility *schedule* of money is indeed proportional to money's purchasing power. However, money does not "derive" its utility from its purchasing power. Its utility is derived from its effectiveness as a rationing device for household and business income over time—as Keynes himself recognized at one point. "One reason for holding cash," he observed without any particular emphasis, "is to bridge the interval between the receipt of income and its disbursement" (1936, 195).

Keynes did not redeem himself with another passage in which he explicitly recognized the utility of money held, as did Fisher and von Mises. While he saw that the marginal utility schedule of money was geared to the exchange-value of the money unit, he did not notice that this linkage would permit money to be entered into a marginal utility calculus for establishing spending equilibrium between money and other economic wealth. (See appendix.) In Keynes's world, a falling price level that increased the exchange-value of the money unit generated no behavioral reaction that would stabilize general disequilibrium conditions, but only further acquisitions of the wealth-item that was appreciating. This oversight is consistent with his inability to derive a real balance effect that would get the economy into "full employment" equilibrium.

A resolution of the value-utility argument over money

requires some reassessment of money. Much of the confusion and error in characterizing money has resulted from concentrating on the nominal quantity rather than on the real quantity. In the absence of expectations, the real quantity is largely independent of the nominal quantity. A nominal unit of money loses utility during an inflation in proportion to the rise in prices. But a real unit of money—the nominal unit adjusted for changes in the value of the money unit—loses no utility until it no longer performs in its usual way as a disburser of income between payment periods. As in all other determinations of real value, money's utility is a feature that contributes to its demand, and the real income of money users is a second conventional determinant. However, the quantity of nominal money units is as irrelevant to the real value of the money stock as is the calibration of apples in bushels or pounds to the real value of apples.

Utility and value are not on the same plane. Utility precedes value and is parallel to scarcity. To label the utility of money "subjective value" as von Mises did is to foster a contradiction in terms. Money has subjective *utility* and objective *value*, regardless of whether a price index (inverted) measures its value accurately or not.

This correction does not deny the principle that consumption guides production. Nonetheless, the scarcity of resources used in getting the supply of anything to market is essential for setting the terms on which the demand is satisfied.

Both Fisher and von Mises emphasized the impossibility of measuring subjective utilities. Both saw utility as a force operating in markets, and also as a force whose magnitude marginally declines. To Fisher, its unmeasurability was a reason to use an objective measure—a price index—as a guide to "corrections in a monetary standard" (Fisher, 1911, 22). He did not mean to throw out the gold standard. He simply recommended periodic modifications to the fixed official price of gold because the production of gold was so great at the time that he feared a gold inflation (!) (Fisher, 1911, 248–50).

His prescription in practice called for only an occasional change in the mint price of gold to adjust for severe changes in its real price that were associated with a chronically rising or falling level of money prices. "Our ideal," he wrote "is not primarily *constancy* of the dollar but rather *dependability*. Fluctuations which can be foreseen and allowed for are not evils. . . . [No one] should expect the monetary unit to insure him

against every wind that blows" (1911, 223; emphasis added).

Fisher's mathematical and statistical training undoubtedly led to his confidence in the use of a price index as a vehicle to measure the value of the money unit. Without such a construction, the common general confusion between relative prices and the price level could never be resolved, so changes in money prices were not likely to be distinguished from changes in real prices. "Individual prices," he wrote, "cannot be fully determined by supply and demand, money cost of production, etc., without surreptitiously introducing the price level itself" (1911, 175). He recognized that the price level when inverted is the only conceptual means for expressing the price of money, and that a price index is the only practical means for estimating the price level.

Von Mises argued that since money prices ("objective exchange values") were the result of subjective utilities, their general level was not explicitly measurable. Money prices he saw as indispensable means for valuing economic goods and services, but, paradoxically, the value of money itself was unquantifiable (von Mises, 1980, 62).

Von Mises here derived what can be labeled the Austrian principle of money: "Every variation in the quantity of money introduces a dynamic factor into the static economic system" (von Mises, 1980, 168). When the stock of money—even if money is gold—changes, the circumstances of the change (where and how the money comes into the system, and who first gets it) inevitably result in relative price changes. In addition, the distribution of wealth and income also change (von Mises, 1978, 81). Thus far, von Mises's analysis and Fisher's had much in common: Money in practice is not neutral in the short run.

Statistically speaking, von Mises noted, these changes in relative prices and real incomes change the "scaling factors" that weight the prices computed in any index. Statistical doctrine cannot provide an accurate means for weight changes. Therefore, "the idea that change in the purchasing power of money may be measured is scientifically untenable" (von Mises, 1978, 99). On the other hand, "any index method is good enough to make a rough statement about the extremely severe depreciation of the value of a monetary unit, [but it] is not necessarily either scientifically correct or applicable in practice" (von Mises, 1978, 89; also 1980, 216–22). Since monetary changes alter relative prices, von Mises argued, a policy to stabilize the price level would have to fix all relative prices and would result in severe

distortions to the economic allocation of resources.

The difference between the two schools over this issue is both conceptual and practical. Both recognized that the purchasing power of money is a reflection of money prices inverted. Von Mises even stated that the "fictitious" concept of a "price level" enables the observer "to distinguish and determine whether changes in exchange relationship between money and other commodities arise on the money side or the commodity side. . . . This distinction is urgently needed" (1978, 85). Fisher developed much the same argument (Fisher, 1911, 174–79). However, Fisher also believed that the price index, with all of its imperfections, was statistically valid and operationally useful. Since money prices are measurable data, a price index is "an ascertainable magnitude with a meaning common to all men" (Fisher, 1911, 220).

The conceptual validity of a price index seems logical. Imagine an economy in which the purchase and sale of one commodity dominates all exchanges. The market price of that commodity in terms of the money unit when inverted would also be the market price of the money unit in terms of that commodity. If the number of commodities exchanged for money were to increase, the conceptual means of evaluating the money unit would not change. It would still be the value of the money unit in terms of some aggregate of goods. Indeed, the value of the money unit cannot be measured in any other way. The validity of the concept cannot be denied because of the imperfection of the method used to measure it.

The propriety of using index numbers to measure prices, and hence the value of the money unit, is another story. It depends ultimately on the statistical reliability of the method for deriving the index, and is essentially an empirical issue. For example, given two periods, one of reasonably stable prices and one of pronounced inflation, do relative prices change significantly more in the inflationary period than they do in the stable period? If so, von Mises's rejection of indexes would have some practical weight.

The Austrian view of the value of money, as set out by von Mises, argued correctly that money must be analyzed in a general theory of value. The value of money is determined in all markets where money is exchanged, he wrote. "To explain its determination is the task of the theory of the value of money" (von Mises, 1980, 141). Very properly, he applied an implicit

real balance effect to show how an adjustment of prices resulted from a change in the quantity of money:

> An increase in a community's stock of money [alters] the ratio between the demand for money and the stock of it . . .; [people] have a relative superfluity of money and a relative shortage of other economic goods. The immediate consequence of both circumstances is that the marginal utility to them of the monetary unit diminishes. This necessarily influences their behavior in the market. They are in a stronger position as buyers. . . . They are able to offer more money for the commodities that they wish to acquire. It will be the obvious result of the [circumstances] that the prices of the goods concerned will rise. . . . Thus the increase of prices continues, having a diminishing effect until all commodities . . . are reached by it (von Mises, 1980, 160–61).

No quantity theorist or monetarist could describe the adjustment to an excess supply of money more effectively. Following this passage, however, von Mises made a substantive criticism of the "mechanical version" of the quantity theory of money: "A thorough comprehension of the means by which money changes prices makes [the quantity theorists'] point of view untenable" (1980, 161). Consequently, "no fixed relationship can be established between the changes in the quantity of money and those of the [money] unit's purchasing power" (von Mises, 1978, 91).

To von Mises, Fisher's manipulations with "neutral" money seemed impossibly mechanistic. The quantity theory assumes an exogenous quantity of money and employs a velocity of circulation and a total output of goods and services—variables outside the decision-making volition of human beings. In his view, therefore, it could not reflect subjective valuations of individuals, (von Mises, 1980, 153–54).

This charge is understandable and has long been a criticism of the quantity theory. Another criticism of some moment is that the quantity theory sublimates the real balance effect implicit in its workings, and hides the utility of money. Von Mises's use of the real balance effect, and his simultaneous criticism of the quantity theory, imply that he, too, saw the quantity theory in this light. He recognized Fisher as one who "takes his stand upon

the subjective theory of value," but who is "unable to show the way subjective valuations are affected by variations in the ratio between the stock of money and the demand for money" (von Mises, 1980, 158).[4]

If Fisher oversold his price index thesis because of his faith in statistical measurement, von Mises's arguments were often whimsical. He had the habit of acknowledging that economic concepts have magnitudes, and he would use these devices analytically; but then he would argue that assigning any precise values to these variables by statistical measurement was improper.

> All index-number systems are based upon the idea of measuring the utility of a certain quantity of money.[5] . . . Their purpose is the determination of the subjective significance of the quantity of money in question. For this, recourse must be had to the quite nebulous and illegitimate fiction of an eternal human with invariable valuations (von Mises, 1980, 221).

Recognition of the quantity theory's defects as an engine of analysis was expressed by A.C. Pigou when he wrote that he favored the form of the cash balance (or "Cambridge") equation to the quantity theory because the cash balance approach

> focuses attention on the proportion of their resources that people choose to keep in the form of [money] instead of focusing it on "velocity of circulation." . . . [The cash balance method] brings us at once into relation with volition—an ultimate cause of demand—instead of something that seems at first sight accidental and arbitrary (1951, 174).

D.H. Robertson made a similar distinction. The cash balance equation, he wrote, "is the more useful for enabling us to understand the underlying forces determining the value of money; while the [quantity theory] is the more useful for equipping us to watch with understanding the actual processes by which in real life the prices of goods and services change" (1948, 38–39). The cash balance equation thus lent itself to the construction of a demand for money that answered von Mises's criticisms of the quantity theory and, as well, provided a vehicle for understanding the true utility of money.

In most important respects, Austrian and monetarist monetary doctrines employ similar constructions and similar methods to analyze money's impact on the economy. Both imply an awareness of the utility of money as money. Both develop demands for money that are methodologically consistent with demand constructions for all other goods and services. Both emphasize the necessity and importance of markets for specifying prices as guides to economic decision making. Both see the value of money in its classical garb as an inversion of money prices. Both make use of the real balance effect. Both deny the short-run neutrality of money; and both deplore the misbehavior of "managed" monetary systems. Wherein then lie their differences?

Most of the disagreements are either methodological misunderstandings or questions of empirical fact. One lingering difference between the two, in contrast to their many common principles, is in the validity each assigns to the statistical measurement of prices. Austrians incongruously deny validity of indexes yet continuously make use of the concept. In this day and age of statistical refinement—never mind the many misuses of statistics—this intellectual position is untenable. Just because a device is not perfect does not mean that it is useless. It should be used, however, with caution and with an understanding of its frailties. The Austrian criticism is a well-considered caveat if it limits itself to this point.

Fisher seems to have leaned too far in the other direction by assigning too deterministic a role to index numbers and by emphasizing too literally the influence of money on prices. Schumpeter hazards the guess that Fisher's vested interest in a "piece of social engineering—the compensated-dollar plan—pushed aside all other considerations" (Schumpeter, 1954, 1103).

Another methodological issue is the Austrian contentiousness for insisting that utility can only be measured ordinally and not cardinally. Utility is a force that has magnitude and direction, as the Austrians know better than anyone else. Therefore, it can be treated *as if* its values are specific (as, indeed, Menger did). In fact, the only necessary condition for determining market equilibrium between money and goods is that all marginal utility schedules decline (Patinkin, 1965, 95). When people then give up money to get other wealth, they run themselves up the utility schedules of money and down the utility schedules of other wealth, until they reach a new equilibrium. (See appendix.)

Austrian doctrine also objects to the assumption of fixed utility schedules for other wealth when only a change in money disturbs some previous equilibrium. This issue is also methodological rather than substantive. Since the nonneutrality of money and the heterogeneity of individuals' utility schedules do not violate in any way the conclusion that changes in the quantity of money significantly affect prices, the assumption of monetary neutrality and the specification of cardinal utilities are simplifications that clarify the analysis by showing it unadorned. The argument, in short, is not over a question of fact but over the efficacy of method.

Austrian doctrine on price indexes and utilities has some substantive basis, and is very useful in limiting enthusiasm for authoritarian tampering with the monetary system. However, the concept of circularity in the utility, value, and demand for money is an illusion, and the regression theorem therefore is a pointless contrivance. If a paradox is imaginary, the "solution" to it is worthless.

All professional specialists tend to culture their intellectual rent factors or vested interests, and economists are not exceptions. When this practice is carried on so intensively over minor details that it produces what appear to be ideological differences, it becomes counterproductive to the momentum of valid first principles. All of which is to say that, as allies, monetarists and Austrians both would better serve their common interests.

Appendix: The Equilibrium Value for the Marginal Utility of Money

Assume declining marginal utility schedules for money, M, and all other goods and services, R. Money exchanges for these goods and services at market prices until a typical individual maximizes his utilities for money and goods relative to their prices. That is, in equilibrium (ephemeral as it might be) the marginal utility of money relative to the price of money equals the marginal utility of goods relative to the price of goods.

[image]

The price of goods, P_R, is some construction of the general price level, and the price of money, p_M, is $1/P_R$. Therefore, equation 1 can be reduced to three terms:

[image]

and

[image]

This last equation states that the marginal utility of the *nth* money unit in equilibrium is equal to the marginal utility of goods divided by the price level *squared*.

To visualize this explanation, let the original equilibrium in equation 1 occur when P_R and p_M are both 1. In this case, MU_M would also equal MU_R Now let a monetary inflation, say, triple the price level by a threefold increase in the stock of money. The new equilibrium, assuming no expectations of further price change, occurs when

[image]

and the new equilibrium marginal utility of money is

[image]

When the money stock and the price level triple, the marginal utility of the nth dollar in equilibrium is one-ninth what it was originally. This value is explained by noting that the whole schedule of monetary utility for nominal money units must be scaled down to one-third of its former value, and in addition everyone must hold three times the former number of money units. Equilibrium, therefore, occurs on a utility schedule that has been reduced by a factor of 3 at a point three times as far out on the money axis.

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[1] Schumpeter, 1954, 1089.

[2] Cf. Jevons's statement earlier in this article.

[3] While Patinkin rejects the Austrian circle and, therefore, von Mises's regression theorem, he nonetheless gives full credit to von Mises's contribution.

[4] By the "demand for money," von Mises indicated that he meant "volume of transactions [divided by] velocity of circulation." Using the algebra of the equation of exchange,

$$T/V = M/P, \text{ and } M/M$$

in contemporary parlance is the real value of the total stock of

money (von Mises, 1980, 158).

[5] Not “utility,” but value. And not “subjective significance” in the next sentence but objective value as registered by markets.

Breaking Out of the Walrasian Box: The Cases of Schumpeter and Hansen

Murray N. Rothbard

Since World War II, mainstream neoclassical economics has followed the general equilibrium paradigm of Swiss economist Leon Walras (1834–1910).[1] Economic analysis now consists of the exegesis and elaboration of the Walrasian concept of general equilibrium, in which the economy pursues an endless and unchanging round of activity—what the Walrasian Joseph Schumpeter aptly referred to as "the circular flow." Since the equilibrium economy is by definition a changeless and unending round of robotic behavior, everyone on the market has perfect knowledge of the present and the future, and the pervasive uncertainty of the real world drops totally out of the picture. Since there is no more uncertainty, profits and losses disappear, and every business firm finds that its selling price exactly equals its cost of production.

It is surely no accident that the rise to dominance of Walrasian economics has coincided with the virtual mathematization of the social sciences. Mathematics enjoys the prestige of being truly "scientific," but it is difficult to mathematize the messy and fuzzy uncertainties and inevitable errors of real world entrepreneurship and human actions. Once one expunges such actions and uncertainties, however, it is easy to employ algebra and the tangencies of geometry in analyzing this unrealistic but readily mathematical equilibrium state.

Most mainstream economic theorists are content to spend their time elaborating on the general equilibrium state, and simply to assume that this state is an accurate presentation of real world activity. But some economists have not been content with contemplating general equilibrium; they have been eager to apply this theory to the real world of dynamic change. For change clearly exists, and for some Walrasians it has not sufficed to simply translate general equilibrium analysis to the real world and to let the chips fall where they may.

As someone who has proclaimed that Leon Walras was the

greatest economist who ever lived, Joseph A. Schumpeter (1883–1950) faced this very problem. As a Walrasian, Schumpeter believed that general equilibrium is an overriding reality; and yet, since change, entrepreneurship, profits, and losses clearly exist in the real world, Schumpeter set himself the problem of integrating a theoretical explanation of such change into the Walrasian system. It was a formidable problem indeed, since Schumpeter, unlike the Austrians, could not dismiss general equilibrium as a long-run tendency that is never reached in the real world. For Schumpeter, general equilibrium had to be the overriding reality: the realistic starting point as well as the end point of his attempt to explain economic change.[2]

To set forth a theory of economic change from a Walrasian perspective, Schumpeter had to begin with the economy in a real state of general equilibrium. He then had to explain change, but that change always had to *return* to a state of equilibrium, for without such a return, Walrasian equilibrium would only be real at *one single point* of past time and would not be a recurring reality. But Walrasian equilibrium is a world of unending statis; specifically, it depicts the consequences of a fixed and unchanging set of individual tastes, techniques, and resources in the economy. Schumpeter began, then, with the economy in a Walrasian box; the only way for any change to occur is through a change in one or more of these static givens.

Furthermore, Schumpeter created even more problems for himself. In the Walrasian model, profits and losses were zero, but a rate of interest continued to be earned by capitalists, in accordance with the alleged marginal productivity of capital. An interest charge became incorporated into costs. But Schumpeter was too much of a student of Böhm-Bawerk to accept a crude productivity explanation of interest. The Austrian approach was to explain interest by a social rate of time preference, of the market's preference for present goods over future goods. But Schumpeter rejected the concept of time-preference as well, and so he concluded that in a state of general equilibrium, the rate of interest as well as profits and losses are all zero.

Schumpeter acknowledged that time-preference, and hence interest, exist on consumption loans, but he was interested in the production structure. Here he stressed, as against the crude productivity theory of interest, the Austrian concept of imputation, in which the values of products are imputed back to productive factors, leaving, in equilibrium, no net return. Also, in the Austrian manner, Schumpeter showed that capital goods can

be broken down ultimately into the two original factors of production, land and labor.[3] But what Schumpeter overlooked, or rather rejected, is the crucial Böhm-Bawerkian concept of time and time-preference in the process of production. Capital goods are not *only* embodied land and labor; they are embodied land, labor, and *time*, while interest becomes a payment for "time." In a productive loan, the creditor of course exchanges a "present good" (money that can be used now) for a "future good" (money that will only be available in the future). And the primordial fact of time-preference dictates that every one will prefer to have wants satisfied now than at some point in the future, so that a present good will always be worth more than the *present prospect* of the equivalent future good. Hence, at any given time, future goods are discounted on the market by the social rate of time-preference.

It is clear how this process works in a loan, in an exchange between creditor and debtor. But Böhm-Bawerk's analysis of time-preference and interest went far deeper, and far beyond the loan market for he showed that time-preference and hence interest return exist apart from or even in the absence of any lending at all. For the capitalist who purchases or hires land and labor factors and employs them in production is buying these factors with money (present good) in the expectation that they will yield a future return of output, of either capital goods or consumer goods. In short, these original factors, land and labor, are future goods to the capitalist. Or, put another way, land and labor produce goods that will only be sold and hence yield a monetary return at some point *in the future*; yet they are paid wages or rents by the capitalist now, in the present.

Therefore, in the Böhm-Bawerkian or Austrian insight, factors of production, hence workers or landowners, do *not* earn, as in neoclassical analysis, their marginal value product in equilibrium. They earn their marginal value product discounted by the rate of time-preference or rate of interest. And the capitalist, for his service of supplying factors with present goods and waiting for future returns, is paid the discount.[4] Hence, time-preference and interest income exist in the state of equilibrium, and not simply as a charge on loans but as a return earned by every investing capitalist.

Schumpeter can deny time-preference because he can somehow deny the role of time in production altogether. For Schumpeter, production apparently takes no time in equilibrium, because production and consumption are "synchronized."[5]

Time is erased from the picture, even to the extent of assuming away accumulated stocks of capital goods, and therefore of any age structure of distribution of such goods.[6] Since production is magically "synchronized," there is then no necessity for land and labor to receive any advances from capitalists. As Schumpeter writes:

> There is no necessity [for workers or landowners] to apply for any "advances" of present consumption goods. . . . The individual need not look beyond the current period. . . . The mechanism of the economic process sees to it that he also provides for the future at the same time. . . . Hence every question of the accumulation of such stocks [of consumer goods to pay laborers] disappears.

From this bizarre set of assumptions, "it follows", notes Schumpeter, "that everywhere, even in a trading economy, produced means of production are nothing but transitory items. Nowhere do we find a stock of them fulfilling any functions." In denying, further, that there is any "accumulated stock of consumer goods" ready to pay laborers and landowners, Schumpeter is also denying the patent fact that wages and rents are always paid out of the accumulated savings of capitalists, savings which could have been spent on consumer goods but which laborers and landowners will instead spend with their current incomes.

How can Schumpeter come to this conclusion? One reason is that when workers and landowners exchange their services for present money, he denies that these involve "advances" of consumer goods, because "It is simply a matter of exchange, and not of credit transactions. The element of time plays no part." What Schumpeter overlooks here is the profound Böhm-Bawerkian insight that the time market is not merely the *credit* market. For when workers and landowners earn money *now* for products that will only reap a return to capitalists in the future, they *are* receiving advances on production paid for out of capitalist saving, advances for which they in effect pay the capitalists a discount in the form of an interest return.[7]

In most conceptions of final equilibrium, net savings are zero, but interest is high enough to induce *gross* saving by capitalists to just replace capital equipment. But in Schumpeter's equilibrium, interest is zero, and this means that *gross* saving is zero as well. There appear to be neither an incentive for

capitalists to maintain their capital equipment in Schumpeterian equilibrium nor the means for them to do so. The Schumpeterian equilibrium is therefore internally inconsistent and cannot be maintained.[8]

Lionel Robbins puts the case in his usual pellucid prose:

> If there were no yield to the use of capital . . . there would be no reason to refrain from consuming it. If produced means of production are not productive of a net product, why devote resources to maintaining them when these resources might be devoted to providing present enjoyment? One would not have one's cake rather than eat it, if there were no gain to be derived from having it. It is, in short, *an* interest rate, which, other things being given, keeps the stationary state—the rate at which it does not pay to turn income into capital or capital into income. If interest were to disappear the stationary state would cease to be stationary. Schumpeter can argue that no *acc*umulation will be made once stationary equilibrium has been attained. But he is not entitled to argue that there will be no *de*cumulation unless he admits the existence of interest.[9] (emphasis added)

To return to Schumpeter's main problem, if the economy begins in a Walrasian general equilibrium modified by a zero rate of interest, how can any economic change, and specifically how can economic development, take place? In the Austrian-Böhm-Bawerkian view, economic development takes place through greater investment in more roundabout processes of production, and that investment is the result of greater net savings brought about by a general fall in rates of time-preference. Upon such a fall, people are more willing to abstain from consumption and to save a greater proportion of their incomes, and thereby invest in more capital and longer processes of production. In the Walrasian schema, change can only occur through alterations in tastes, techniques, or resources. A change in time-preference would qualify as a very important aspect of a change in consumer "tastes" or values.

But for Schumpeter, *there is no* time-preference, and no savings in equilibrium. Consumer tastes are therefore irrelevant to increasing investment, and besides there are *no savings* or interest income out of which such investment can take place. A

change in tastes or time-preferences cannot be an engine for economic change, and neither can investment in change emerge out of savings, profit, or interest.

As for consumer values or tastes apart from time-preference, Schumpeter was convinced that consumers were passive creatures and he could not envision them as active agents for economic change.[10] And even if consumer tastes change actively, how can a mere shift of demand from one product to another bring about economic development?

Resources for Schumpeter are in no better shape as engines of economic development than are tastes. In the first place, the supplies of land and labor never change very rapidly over time, and furthermore they cannot account for the necessary investment that spurs and embodies economic growth.

With tastes and resources disposed of, there is only one logically possible instrument of change or development left in Schumpeter's equilibrium system: technique. "Innovation" (a change in embodied technical knowledge or production functions) is for Schumpeter the only logically possible avenue of economic development. To admire Schumpeter, as many economists have done, for his alleged realistic insight into economic history in seeing technological innovation as the source of development and the business cycle, is to miss the point entirely. For this conclusion is not an empirical insight on Schumpeter's part; it is logically the only way that he can escape from the Walrasian (or neo-Walrasian) box of his own making; it is the only way for any economic change to take place in his system.

But if innovation is the only way out of the Schumpeterian box, how is this innovation to be financed? For there are no savings, no profits, and no interest returns in Schumpeterian equilibrium. Schumpeter is stuck: for there is no way within his own system for innovation to be financed, and therefore for the economy to get out of his own particularly restrictive variant of the Walrasian box. Hence, Schumpeter has to invent a *deus ex machina*, an exogenous variable from outside his system that will lift the economy out of the box and serve as the only possible engine of economic change. And that *deus ex machina* is inflationary bank credit. Banks must be postulated that expand the money supply through fractional reserve credit, and furthermore, that lend that new money exclusively to innovators —to new entrepreneurs who are willing and able to invest in new techniques, new processes, new industries. But they cannot

do so because, by definition, there are no savings available for them to invest or borrow.

Hence, the conclusion that innovation is the instrument of economic change and development, and that the innovations are financed by inflationary bank credit, is *not* a perceptive empirical generalization discovered by Joseph Schumpeter. It is not an empirical generalization at all; indeed it has *no* genuine referent to reality. Suggestive though his conclusion may seem, it is solely the logical result of Schumpeter's fallacious assumptions and his closed system, and the only logical way of breaking out of his Walrasian box.

One sees, too, why for Schumpeter the entrepreneur is always a disturber of the peace, a disruptive force *away* from equilibrium, whereas in the Austrian tradition of von Mises and Kirzner, the entrepreneur harmoniously adjusts the economy in the direction of equilibrium. For in the Austrian view the entrepreneur is the main bearer of uncertainty in the real world, and successful entrepreneurs reap profits by bringing resources, costs, and prices further in the direction of equilibrium. But Schumpeter starts, not in the real world, but in the never-never land of general equilibrium which he insists is the fundamental reality. But in the equilibrium world of stasis and certainty there are no entrepreneurs and no profit. The *only* role for entrepreneurship, by logical deduction, is to innovate, to disrupt a preexisting equilibrium. The entrepreneur cannot adjust, because everything has already been adjusted. In a world of certainty, there is no room for the entrepreneur; only inflationary bank credit and innovation enable him to exist. His only prescribed role, therefore, is to be disruptive and innovative.

The entrepreneur, then, pays interest to the banks, interest for Schumpeter being a strictly monetary phenomenon. But where does the entrepreneur-innovator get the money to pay interest? Out of profits, profits that he will reap when the fruits of his innovation reach the market, and the new processes or products reap revenue from the consumers. Profits, therefore, are *only* the consequence of successful innovation, and interest is only a payment to inflationary banks out of profit.

Inflationary bank credit means, of course, a rise in prices, and also a redirection of resources toward the investment in innovation. Prices rise, followed by increases in the prices of factors, such as wages and land rents. Schumpeter has managed, though not very convincingly, to break out of the Walrasian box. But he has not finished his problem. For it is not enough for him

to break out of his box; he must also get back in. As a dedicated Walrasian, he must return the economy to *another* general equilibrium state, for after all, by definition a real equilibrium is a state to which variables tend to return once they are replaced. How does the return take place?

For the economy to return to equilibrium, profits and interest must be evanescent. And innovation of course must also come to an end. How can this take place? For one thing, innovations must be discontinuous; they must only appear in discrete clusters. For if innovation were *continuous*, the economy would never return to the equilibrium state. Given this assumption of discontinuous clusters, Schumpeter found a way: When the innovations are "completed" and the new processes or new products enter the market, they out-compete the old processes and products, thereby reaping the profits out of which interest is paid. But these profits are made at the expense of severe losses for the old, now inefficient, firms or industries, which are driven to the wall. After a while, the innovations are completed, and the inexorable imputation process destroys all profits and therefore all interest, while the sudden losses to the old firms are also ended. The economy returns to the unchanging circular flow, and stays there until another cluster of innovations appears, whereupon the cycle starts all over again.

"Cycle" is here the operative term, for in working out the logical process of breakout and return, Schumpeter has at the same time seemingly developed a unique theory of the business cycle. Phase I, the breakout, looks very much like the typical boom phase of the business cycle: inflationary bank credit, rise in prices and wages, general euphoria, and redirection of resources to more investment. Then, the events succeeding the "completion" of the innovation look very much like the typical recession or depression: sudden severe losses for the old firms, retrenchment. And finally, the disappearance of both innovation and euphoria, and eventually of losses and disruption—in short, a return to a placid period which can be made to seem like the state of stationary equilibrium.

But Schumpeter's doctrine only *seems* like a challenging business cycle theory worthy of profound investigation. For it is not really a cycle theory at all. It is simply the only logical way that Schumpeter can break out and then return to the Walrasian box. As such, it is certainly an ingenious formulation, but it has no genuine connection with reality at all.

Even within his own theory, indeed, there are grave flaws.

In the Walrasian world of perfect certainty (an assumption which is not relaxed with the coming of the innovator), how is it that the old firms wait until the "completion" of the innovation to find suddenly that they are suffering severe losses? In a world of perfect knowledge and expectations, the old firms would know of their fate from the very beginning, and early take steps to adjust to it. In a world of perfect expectations, therefore, there would be no losses, and therefore no recession or depression phase. There would be no cycle as economists know it.

Finally, Schumpeter's constrained model can only work if innovations come in clusters, and the empirical evidence for such clusters is virtually nil.[11] In the real world, innovations occur all the time. Therefore, there is no reason to postulate any return to an equilibrium, even if it had ever existed in the past.

In conclusion, Schumpeter's theory of development and of business cycles has impressed many economists with his suggestive and seemingly meaningful discussions of innovation, bank credit, and the entrepreneur. He has seemed to offer far more than static Walrasian equilibrium analysis and to provide an economic dynamic, a theoretical explanation of cycles and of economic growth. In fact, however, Schumpeter's seemingly impressive system has no relation to the real world at all. He has not provided an economic dynamic; he has only found an ingenious but fallacious way of trying to break out of the static Walrasian box. His theory is a mere exercise in equilibrium logic leading nowhere.

It is undoubtedly at least a partial realization of this unhappy fact that prompted Schumpeter to expand his business cycle theory from his open-cycle model of the *Theory of Economic Development* of 1912 to his three-cycle schema in his two-volume *Business Cycles* nearly three decades later.[12] More specifically, Schumpeter saw that one of the problems in applying his model to reality was that if the length of the boom period is determined by the length of time required to "complete" the innovation and bring it to market, then how could his model apply to real life, where simultaneous innovations occur, each of which requires a different time for its completion? His later three-cycle theory is a desperate attempt to encompass such real-life problems. Specifically, Schumpeter has now postulated that the economy, instead of unitarily breaking out and returning to equilibrium, consists of three separate hermetically sealed, strictly periodic cycles—the "*Kitchin*", the "*Juglar*," and the "*Kondratieff*"—each with the same innovation-inflation-depression characteristics.

This conjuring up of allegedly separate underlying cycles, each cut off from the other, but all adding to each other to yield the observable results of the real world, can only be considered a desperate lapse into mysticism in order to shore up his original model.

In the first place, there are far more than three innovations going on at one time in the economy, and there is no reason to assume strict periodicity of each set of disparate changes. Indeed, there is no such clustering of innovations as would be required by the theory. Secondly, in the market economy, all prices and activities interact; there therefore can never be any hermetically sealed cycles. The multicycle scheme is an unnecessary and heedless multiplication of entities in flagrant violation of Occam's Razor. In an attempt to save the theory, it asserts propositions that cannot be falsifiable, since another cycle can always be conjured up to explain away anomalies.[13] In an attempt to salvage his original model, Schumpeter only succeeded in adding new and greater fallacies to the old.

In the years before and during World War II, the most popular dynamic theory of economic change was the gloomy doctrine of "secular stagnation" (or "economic maturity") advanced by Professor Alvin H. Hansen.[14] The explanation of the Great Depression of the 1930s, for Hansen, was that the United States had become mired in permanent stagnation, from which it could not be lifted by free market capitalism. A year or two after the publication of Keynes's *General Theory*, Hansen had leaped on the New Economics to become the leading American Keynesian; but secular stagnation, while giving Keynesianism a left-flavor, was unrelated to Keynesian theory. For Keynes, the key to prosperity or depression was private investment: flourishing private investment means prosperity; weak and fitful investment leads to depression. But Keynes was an agnostic on the investment question, whereas Hansen supplied his own gnosis. Private investment in the United States was doomed to permanent frailty, Hansen opined, because (1) the frontier was now closed; (2) population growth was declining rapidly; and (3) there would be hardly any further inventions, and what few there were would be of the capital-saving rather than labor-saving variety, so that total investment could not increase.

George Terborgh, in his well-known reputation of the stagnation thesis, *The Bogey of Economic Maturity*, concentrated on a statistical critique.[15] If the frontier had been "closed" since the turn of the century, why then had there been a boom

for virtually three decades until the 1930s? Population growth too, had been declining for many decades. It was easy, also, to demolish the rather odd and audacious prediction that few or no further inventions, at least of the labor-saving variety, would ever more be discovered. Predictions of the cessation of invention, which have occurred from time to time through history, are easy targets for ridicule.

But Terborgh never penetrated to the fundamentals of the Hansen thesis. In an age beset by the constant clamor of population doomsayers and zero-population-growth enthusiasts, it is difficult to conjure up an intellectual climate when it seemed to make sense to worry about the *slowing* of population growth. But why, indeed, should Hansen have considered population growth as *ipso facto* a positive factor for the spurring of investment? And why would a slowing down of such growth be an impetus to decay? Schumpeter, in his own critique of the Hansen thesis, sensibly pointed out that population growth could easily lead to a fall in real income per capita.[16]

Ironically, however, Schumpeter did not recognize that Hansen, too, in his own way, was trying to break out of the Walrasian box. Hansen began implicitly (not explicitly like Schumpeter) with the circular flow and general equilibrium, and then considered the various possible factors that might change—or, more specifically, might increase. And these were the familiar Walrasian triad: land, labor, and technique. As Terborgh noted, Hansen had a static view of "investment opportunities." He treated them as if they were a limited physical entity, like a sponge. They were a fixed amount, and when that maximum amount was reached, investment opportunities were "saturated" and disappeared. The implicit Hansen assumption is that these opportunities could be generated only by increases in land, labor, and improved techniques (which Hansen limited to *inventions* rather than Schumpeterian innovations). And so the closing of the frontier meant the drying up of "land-investment opportunities", as one might call them, the slowing of population growth, the end of "labor-investment opportunities," leading to a situation where innovation could not carry the remaining burden.

And so Hansen's curious view of the economic effects of diminishing population growth, as gloomily empirical as it might seem, was not really an empirical generalization at all. Indeed, it said nothing about dynamic change or about the real world at all. The allegedly favorable effect of high population growth was

merely the logical spinning out of Hansen's own unsuccessful variant of trying to escape from the Walrasian box.

The author learned the basic insights of this article many years ago from lectures of Professor Arthur F. Burns at Columbia University.

[1] Before World War II, the dominant paradigm, at least in Anglo-American economics, was the neo-Ricardian partial equilibrium theory of Alfred Marshall. In that era, Walras and his followers, the earliest being the Italian Vilfredo Pareto, were referred to as "the Lausanne school." With the Walrasian conquest of the mainstream, what was once a mere school has now been transformed into "microeconomics."

[2] In maintaining that Schumpeter was more influenced by the Austrians than by Walras, Mohammed Khan overlooks the fact that Schumpeter's first book, and the only one still untranslated into English, *Das Wesen und der Hauptinhalt der Theoretischen Nationalekonomie* (The Essence and Principal Contents of Economic Theory) (Leipzig, 1908), written while he was still a student of Böhm-Bawerk, was an aggressively Walrasian work. Not only is *Das Wesen* a nonmathematical apologia for the mathematical method, but it is also a study in Walrasian general equilibrium that depicts economic events as the result of mechanistic quantitative interactions of physical entities, rather than as consequences of purposeful human action —the Austrian approach. Thus, Fritz Machlup writes that

> Schumpeter's emphasis on the character of economics as a quantitative science, as an equilibrium system whose elements are "quantities of goods," led him to regard it as unnecessary, and, hence, as methodologically mistaken for economics to deal with "economic conduct" and with "the motives of human conduct" (Fritz Machlup, "Schumpeter's Economic Methodology," *Review of Economics and Statistics* 33 (May 1951: 146–47)).

Cf. Mohammed Shabbir Khan, *Schumpeter's Theory of Capitalist Development* (Aligarh, India: Muslim University of India, 1957).

On *Das Wesen*, see Erich Schneider, *Joseph Schumpeter: Life and Work of a Great Social Scientist* (Lincoln, Neb.: University of Nebraska Bureau of Business Research, 1975), pp. 5–8. On Schumpeter as Walrasian, also see Schneider, "Schumpeter's

Early German Work, 1906–17," *Review of Economics and statistics* (May 1951): 1–4; and Arthur W. Marget, "The Monetary Aspects of the Schumpeterian System," ibid. p. 112ff. On Schumpeter as not being an "Austrian," also see "Haberler on Schumpeter," in Henry W. Spiegel, ed., *The Development of Economic Thought* (New York: John Wiley and Sons, 1952), pp. 742–43.

[3] Thus, Schumpeter wrote that

> in the normal circular flow the whole value product must be imputed to the original productive factors, that is to the services of labor and land; hence the whole receipts from production must be divided between workers and landowners and there can be no permanent net income other than wages and rent. Competition on the one hand and imputation on the other must annihilate any surplus of receipts over outlays, any excess of the value of the product over the value of the services of labor and land embodied in it. The value of the original means of production must attach itself with the faithfulness of a shadow to the value of the product, and could not allow the slightest permanent gap between the two to exist. . . . To be sure, produced means of production have the capacity of serving in the production of goods. . . . And these goods also have a higher value than those which could be produced with the produced means of production. But this higher value must also lead to a higher value of the services of labor and land employed. No element of surplus value can remain permanently attached to these intermediate means of production (Joseph A. Schumpeter, *The Theory of Economic Development: An Inquiry Into Profits, Capital, Credit, Interest, and the Business Cycle*. New York: Oxford University Press, 1961, pp. 160, 162).

[4] See the attack on this Austrian view from a Knightian neoclassical perspective in Earl Rolph, "The Discounted Marginal Productivity Doctrine," in W. Fellner and B. Haley, eds., *Readings in the Theory of Income Distribution* (Philadelphia: Blakiston, 1946), pp 278–93. For a rebuttal, see Murray N. Rothbard, *Man, Economy, and State* vol. I (Los Angeles: Nash Publishing Co., 1970), 431–33.

[5] On this alleged synchronization, see Khan, *Schumpeter's*

Theory, pp. 51, 53. The concept of synchronization of production is a most un-Austrian one that Schumpeter took from John Bates Clark, which in turn led to the famous battle in the 1930s between the Clark-Knight concept of capital and the Austrian views of Hayek, Machlup, and Boulding. See ibid., p. 6n. Also see F.A. Hayek, "The Mythology of Capital," in Fellner and Haley, *Readings*, pp. 355–83.

[6] In Khan's words, for Schumpeter "capital cannot have any age structure and perishes in the very process of its function of having command over the means of production" (Khan, *Schumpeter's Theory*, p. 48). Schumpeter achieves this feat by sundering capital completely from its embodiment in capital goods, and limiting the concept to only a money fund used to purchase those goods. For Schumpeter, then, capital (like interest) becomes a purely monetary phenomenon, not rooted in real goods or real transactions. See Schumpeter, *Economic Development*, pp. 116–17.

[7] See Schumpeter, *Economic Development*, pp. 43–44.

[8] Clemence and Doody attempt to refute this charge, but do so by assuming a zero rate of time-preference. Capitalists would then be interested in maximizing their utility returns over time without regard for when they would be reaped. Hence, capital goods would be maintained indefinitely. But for those who believe that everyone has a positive rate of time-preference, and hence positively discounts future returns, a zero rate of return would quickly cause the depletion of capital and certainly the collapse of stationary equilibrium. Richard V. Clemence and Francis S. Doody, *The Schumpeterian System* (Cambridge, Mass: Addison-Wesley, 1950), pp. 28–30.

[9] In the excellent critique of Schumpeter's zero-interest equilibrium by Lionel Robbins, "On a Certain Ambiguity in the Conception of Stationary Equilibrium," *Economic Journal* 40 (June 1930): pp. 211–14. Also see Gottfried Haberler, "Schumpeter's Theory of Interest," *Review of Economics and Statistics* (May 1951): 122ff.

[10] Thus, Schumpeter wrote: "It is not the large mass of consumers which induces production. On the contrary, the crowd *is mastered and led by the key personalities in production*" (italics are Schumpeter's) in "Die neuere Wirtschaftstheorie in den Vereinigten Staaten" ("Recent Economic Theory in the United States") *Schmollers Jahrbuch* (1910), cited in Schneider, *Joseph A. Schumpeter*, p. 13.

[11] See Simon S. Kuznets, "Schumpeter's Business Cycles,"

American Economic Review (June 1940).

[12] Joseph A. Schumpeter, *Business Cycles: A Theoretical, Historical, and Statistical Analysis of the Capitalist Process*, 2 vols. (New York: McGraw-Hill, 1939).

[13] This does not mean that *all* propositions must be falsifiable; they can be self-evident or deduced from self-evident axioms. But no one can claim that the alleged *Kitchin*, *Juglar*, and *Kondratieff* cycles are in any sense self-evident.

[14] See Alvin H. Hansen, *Fiscal Policy and Business Cycles* (New York: W.W. Norton, 1941). For a clear summary statement of his position, see Hansen, "Economic Progress and Declining Population Growth," in G. Haberler, ed., *Readings in Business Cycle Theory* (Philadelphia: Blakiston, 1944), pp. 366–84.

[15] George Terborgh, *The Bogey of Economic Maturity* (Chicago: Machinery and Allied Products Institute, 1945).

[16] Schumpeter, *Business Cycles*, p. 74.

Two Forgotten Articles by Ludwig von Mises on the Rationality of Socialist Economic Calculation

William Keizer

In the past few years, there has been a remarkable revival of academic interest in the Austrian economist Ludwig von Mises's pioneering and incisive critique of the rationality of economic calculation under socialism. An entire issue of the *Journal of Libertarian Studies* was devoted to the subject. Other journals have included articles by Karen I. Vaughn and Peter Murrell.[1] Less well known to American readers will be articles by the German economists R. Neck and S.G. Schoppe.[2] From the late 1940s onward until this recent spate of publications, it was commonly held in western academic circles that von Mises's original critique had been convincingly refuted by:

1. The Polish economist Oskar Lange's 1936 model of "market socialism" (also known as the "competitive solution"), as was expressed in A. Bergson's comprehensive survey of the debate of 1948.[3]
2. The evident viability and high growth rates of the socialist economies of Eastern Europe, where the problems raised by von Mises were simply ignored or bypassed as irrelevant—an attitude theoretically underpinned and academically sanctioned by western "centralist" socialists such as M. Dobb and Paul Sweezy.[4]
3. The rapid rise in the early 1960s of cybernetic optimal planning models using high-powered computer technology, as was later believed by Lange himself.[5]

Most commentators on this famous "socialist controversy" held the view that von Hayek's later arguments against the rationality of socialist economic calculation were a step back from the strict "impossible" charged by von Mises, to a more modest and weaker "impractical" or even "less efficient than capitalism."[6]

With that, the original charge lost much of its force and it appeared as if the socialists had won the debate.

Starting in the early 1970s, these same factors caused a gradual change in this prevalent western view of the debate.

• Lange's neoclassical solution came under serious attack, not only from von Hayek and other neoliberals, but also from the centralist socialists such as Dobb and Sweezy (and implicitly the Soviet theoreticians, who never even acknowledged its existence). In 1971, P.C. Roberts convincingly showed that Lange's market socialism could not be called "socialism" as traditionally defined by Marxists. What Lange did was vindicate market relationships, not refute von Mises's criticism.[7] In this line of reasoning Lange actually proved von Mises to be right: without real market relationships and real competition between the "socialist" firms, there can be no rational calculation. This is exactly what von Mises had averred, but he had extended the argument beyond the line Lange implicitly drew, by stating that there could be no independent firms under socialism, as they could not freely dispose over their means of production. Without decentralized property rights, there are no independent firms, no real competition, and no real market relations—and hence no rational calculation. Von Mises had stated (and in the two articles under discussion reiterated) that by "socialism" he understood a *centrally* planned economy, without independent firms acting as if they were the owners of their means of production. In his reply to arguments brought forward by Karl Polanyi and Heimann (to be discussed later) von Mises conceded that rational calculation is possible under *syndicalism*, where the workers or the managers either own the means of production or else behave as if they own them. His challenge was directed at centrally and imperatively planned *state socialism*, which he understood Marxists to want, not at syndicalism or workers' self-management. His quarrel was with Marx, not with Proudhon or the other "associative" socialists! Syndicalist or other market-based systems of socialism are no answer to his critique.

• The slowing down and ultimate stagnation of the growth rates of the Soviet and Eastern European economies, their inability to provide their citizens with a high standard of living, and the many instances of waste and inefficiency cited by Soviet economists themselves cast doubts on the rebuttal of von Mises's critique by the praxis of existing socialism.

• By the early 1970s, it was evident that the "computopian" ideals of a decade earlier had been unfounded. The mathematical

planning models were incapable of reforming the practice of the Soviet planning system.

• New interest in the debate was also aroused by the burgeoning literature on the theory of property rights, which was seen to be the essence of von Mises's critique.[8]

The Central European Debate of the 1920s

All presentations of von Mises's critique refer only to his original 1920 article published in the *Archiv für Sozialwissenschaft und Sozialpolitik*. It was translated into English and republished by Hayek in his 1935 reader on the subject.[9] Occasional reference is made to his major work on socialism, *Die Gemeinwirtschaft* of 1922.[10] In the light of the subsequent controversy over what von Mises precisely wrote and meant, it is necessary to go back to the original German texts. There has been considerable misrepresentation of his actual arguments and many authors quote them only from secondary sources. It is, of course, easy to refute an argument if one starts by misrepresenting it. Von Mises then becomes a kind of straw man, which not only does injustice to his intellectual stature and critique, but also lulls his opponents into a false sense of security. One does not improve the economic theory of socialism by caricaturing the most fundamental criticism of it.

With the publication of "Die Gemeinwitsch aft," the matter seemed to rest as far as von Mises own contributions to the debate were concerned. In the 1930s, Hayek took over some of his arguments in an Anglo-Saxon continuation of the debate, with new proponents of socialism (such as Dobb, Sweezy, H.D. Dickenson, A.P. Lerner, and Lange) on the opposite side. For most English-speaking scholars on the subject, *this* was the real "socialist controversy," which was then believed to have terminated with Bergson's aforementioned article. Unknown to most commentators, however, there was an extensive controversy about the rationality of socialist economics in the German journals of the 1920s, with many eminent German and Austrian economists as participants. This controversy was never satisfactorily settled, but rather was overtaken by political events, such as the National Socialist take-over of power and the suppression of socialism. Some original contributors to this debate emigrated to the United States, where they did not continue this Central European part of the debate (with the exception of Hayek, who had not taken part in the discussion of

the 1920s).

Not only then are there a number of interesting contributions to the debate by various continental European authors, but there also exist two more articles written by von Mises himself on this subject in 1924 and 1928. In these he discusses and rebuts the counterarguments made by several German and Austrian proponents of socialism in response to his original critique. In doing so, he clarifies and extends his earlier arguments against the rationality of socialist economic calculation. Although they appeared in the same journal as his first article, only an excerpt of the 1924 paper has been translated into English and is therefore available to non-German-speaking readers. It is somewhat obscurely tucked away as part of the appendix to his book *Socialism* and has hardly been noticed by later authors.[11] To my knowledge there is no English translation of the whole article, nor of the 1928 article. In view of the later misunderstandings over what von Mises really meant, it is worth taking notice of these two articles as further evidence of what he really wrote. Here now is a synopsis of these two articles, with a commentary in the light of more recent research. In translating I have tried to stay as close as possible to von Mises's own wording.

"New Contributions to the Problem of Socialist Economic Calculation"

Von Mises opens his second article, "Neue Beiträge zum Problem der sozialistischen Wirtschaffsrechnung" ("New Contributions to the Problem of Socialist Economic Calculation," henceforth "N.B."), which appeared in the "Archiv für Sozialwissenschaft" in 1924, with the statement: "The problem of economic calculation is the major and fundamental problem of socialism."[12] That this had not been realized until then was due to two reasons. First, for the adherents of the objective theory of value, there was no problem at all. If value was objectively determinable and calculable, then economic calculation would not present any problem, even in a socialist society. If they had, however, but visualized the actual construction of a socialist economy, the contradictions of the objective theory of value would soon have become apparent. One cannot solve the problem of value by means of the classical theory of value. Second, all preoccupation with the (future) problems of a socialist society and economic system were strictly prohibited by Marxism. "One was allowed to

praise socialism, but not to think about it" (N.B., p. 488).

Von Mises states that it is now no longer possible to evade the problem. He has demonstrated that a socialist society is totally incapable of performing economic calculation, so that economizing ("wirtschaften") or rational economic action is impossible under socialism. He then proceeds to refute the arguments of a number of socialist authors who sought to disprove his original case.

He first discusses the Ph.D. thesis of A.W. Cohn, "Kann das Geld abgeschaft werden?" ("Can Money be Abolished?," University of Jena, 1920). Cohn quotes von Mises's original article extensively and appears to agree with its conclusions. But he then states that the problem had already been solved long ago by A. Schäffle's "social tax."[13] Schäffle had suggested that representatives of the trade unions and the consumers should periodically meet to set differentiated "taxes" (which might be negative) on the labor costs of the consumer goods produced. The "Central Office for Production Accounting" is presumed to know the (homogenous) labor time embodied in the various products. If the volume and intensity of demand exceeds the available supply, then the social tax should be higher than the average labor costs of the product, and vice versa. Thus there arise market-clearing prices on the basis of the labor theory of value. The idea is commonly found in the mid-1870s, as in Marx's own distinctions between "labour values," "*Produktionspreise*," and the daily fluctuating actual market prices.

Von Mises considers this proposal as good as any other for clearing the market for consumer goods, but *only* for this specific purpose.

> For a socialist society can arrange the distribution of (consumer) goods according to whatever principle it pleases, but if it wishes to make them exchangeable against each other, then it is bound to those relationships that arise out of the solely-permitted exchange of consumer goods for each other.

That is to say, if the socialist planning authorities wish to allow "consumer freedom of choice," they must set their selling prices according to the demand and supply relationships existing on the market for consumer goods.[14] This is the only kind of market permitted under socialism—there can be no market for producer

goods. The usefulness of this social tax for the purpose of economic calculation is an entirely different matter, for here it must fail completely. According to von Mises, Schäffle's basic error lies in believing that under collectivist production, "social labor" would be a concrete and calculable reality, which could be used as a measure of value. As erroneous is Schäffle's implicit conviction that rational prices for producer and investment goods can be derived from a set of market-clearing prices for consumer goods. Schäffle and Cohn see the problem solely in terms of finding market-clearing prices for consumer goods. As von Mises was to state in his reply to the arguments of Heimann, that is *not* the core of his problem, which is economic calculation involving investment goods, requiring subjective estimates of an uncertain future. Here market-clearing prices for present goods are but one element of a large set of required data, and insufficient by themselves.

The second author discussed is Karl Polanyi.[15] He admits that von Mises's problem is "the key problem of the socialist economy" and believes it to be insoluble in a centrally administered economy—which is precisely what von Mises, quoting the Marxist classics, defines the socialist economy to bet Polanyi's attempt at a solution is to propose a "functionally-organised socialist transition economy," which von Mises interprets as the kind of social order the English Guild Socialists had in mind. He finds Polanyi's concept of such a system as nebulous as that of the Guild Socialists. The "body politic" is to be the "owner" of the means of production, but it does not have the right of use ("usus") over them. That is reserved for the producers' "association," chosen by the workers on a sectoral basis. This ownership arrangement resembles the Yugoslav property system.[16]

Von Mises considers the basic flaw of this construction to be the vagueness by which it seeks to evade a crucial question: Is the system supposed to be *socialist* or *syndicalist*? Polanyi first assigns the means of production to society as a whole, the "commune," and thus seeks to absolve himself from the charge of "syndicalism" (which must have been quite a crime among Austrian Marxists in the early 1920s). But von Mises states, "Property is the right of use, and if that is assigned to the production associations, then these are the owners and then we are dealing with a syndicalist society" (N.B., p. 491). A choice must be made: there can be no reconciliation between socialism and syndicalism. This strict distinction between the two (which

von Mises had in common with all Marxist socialists of the time —and perhaps of today), he made on the basis of a theory of property rights. Property rights over the means of production must be assigned to some concrete body: if neither the "commune" nor the production associations have the final say in their allocation, then the system is not viable. If final decision-making power rests with the commune (the *political* organization of the community), then one is dealing with a "zentrale Verwaltungswirtschaft" a centrally administered economy such as Soviet Russia's. Polanyi agrees that rational economic calculation is impossible here. If the final power rests with the production associations, then there exists a syndicalist commonwealth.

Polanyi's confusion on this point make him suggest a pseudosolution to von Mises's problem. His associations engage in mutual exchange relations, they give and receive as if they were the owners of the goods, and thus a market and market prices are created Polanyi does not notice that this is irreconcilable with the essence of *socialism*.[17] von Mises agrees that rational economic calculation is possible under syndicalism or under any other producer cooperative-based system where the cooperative bodies are the owners of the means of production. Thus, there is some kind of group-collective *private* ownership, what the Maoists during the Chinese cultural revolution used to criticise as Yugoslav group-capitalism. Group-capitalism is also capitalism and allows rational calculation. But von Mises reiterates his contention that this is impossible under a centrally planned administrative socialist system and says that Polanyi concedes this. All Guild Socialists make the same mistake: they confuse their particular brand of syndicalism with socialism, properly so called. The debate with Polanyi shows that von Mises's original challenge was directed against a centrally administered socialist economy, as was then, during "war communism," and later again in the Stalinist epoch, being constructed in the Soviet Union. It was explicitly not aimed at syndicalism, guild socialism, or some sort of market socialism with independent firms. He readily concedes the rationality of economic calculation in any system in which the enterprises, cooperatives, associations, or whatever have full property rights and are the owners of the means of production. If property rights are dispersed over several decision makers who must interact with one another, then markets (also for producer goods) exist and rational exchange relationships and prices can be

established.

The third author discussed is the well-known Marxist E. Heimann.[18] He follows Max Weber in rejecting the concept of a moneyless socialist society, so that his socialism is characterised by monetary calculation. He also suggests separate "production groups," but again does not specify their exact relationship to society as a whole, that is, to the state and its supreme planning organ. Thus he speaks of market exchange relations between the production units, without realizing that the "planned economy," properly so called, is without market exchange. What here could be called "selling" and "buying" is in its nature something very different. Heimann lapses into this error because he sees the defining characteristic of a planned economy as the monopolistic concentration of the individual branches of production, rather than as the dependence of all production on the uniform will of a central social organ. Von Mises finds this misconception all the more surprising as already the name "planned economy" and all of Heimann's arguments stress the monolithism of the guidance of the economy. "Here, and nowhere else, lies the dividing line between socialism and capitalism" (N.B., p. 493).

Von Mises defines "pure socialism" as the "strictly centrally-organised commonweal" and the "fully-implemented planned economy" (N.B., p. 493). The possibility that superficially independent departments may have been delegated the task of administering the individual branches of industry, under the monolithic leadership of a central bureau, does not alter the fact that only this bureau has all the authority. The relationships between the separate departments are not established on a market through the competition of buyers and sellers, but by government order. The problem is, that this government intervention lacks any measure to make calculation possible as the government cannot orient itself on exchange relationships formed on the market. The government can, of course, base its calculations on exchange relationships that it establishes *itself*, but such a determination is arbitrary. It is not based upon the subjective evaluations of the economic subjects, which have been carried over to the producer goods through the interaction of all citizens in the processes of production and exchange. Therefore, they cannot form the basis of rational economic calculation (N.B., p. 494).

These last sentences show that von Mises (as well as everybody else in those days) envisaged socialism as operating

under consumer sovereignty.[19] He explicitly excludes "planners' sovereignty"—the authoritarian determination of the output assortment and hence the scarcity relations between all goods and services on the basis of the "planners'" (the political rulers') *own* subjective preferences. The task of the socialist economy was to maximize social welfare on the basis of the individual citizens' own preferences. It was this that he found socialist calculation incapable of doing.

Heimann suggests that economic calculation should be based on the average costs of production, including wages. This argument is circular, even when one defines "costs" as "utility forgone." In a socialist state, the second-best opportunity can only be determined by the state, and the problem is, whether the state can calculate at all what this net-best opportunity is. In every conceivable form of socialist society, the competition between entrepreneurs (who, in a system based on private property, strive to allocate goods and services to their most profitable use) is replaced by the planned actions of the state. But it is only this competition between entrepreneurs (who mutually seek to wrest capital goods and labor away from each other) that forms prices. Where production and economic activity occur on a planned basis (by order of a central bureau that everything is subservient to), the basis of profitability accounting disappears and only accounting in physical terms remains. As in Lange's "competitive solution," Heimann believes that as soon as there is real competition on the markets for consumer goods, the price relationships established there will be transmitted to all the stages of production. One must only apply the pricing rule properly, independent of the constitution of the parties on the markets for producer goods. Von Mises states that this will only occur if *real* competition exists. Heimann visualizes socialist society as the association of a number of "monopolies" (the production departments of the whole socialist organism), with each assigned a delimited sector of production to supply. When these monopolies buy on the producer goods "markets," this cannot be called competition, as the government has previously assigned to them the field in which they must operate and which they may not leave. Competition only exists when each firm produces those goods that appear to offer it the highest profitability. These conditions are only met under private ownership of the means of production (N.B., p. 495).

Heimann's description of a socialist economy only deals with the current production of consumer goods with the aid of raw

materials. Thus he gives the impression as if the separate departments of the socialist economy were capable of acting on their own. But far more important than this is the replacement of existing capital stock and investment in new capital goods. The crux of rational economic calculation lies in deciding on these matters, not on disposing existing capital, which to a certain degree has already been predetermined by these decisions. These replacement and investment decisions, which bind for decades to come, cannot be made dependent on the momentary demand for consumer goods. They must be oriented upon the future; they must be "speculative." Heimann's system of having the expansion or contraction of production follow more or less automatically from the state of demand for consumer goods fails utterly here. Solving the valuation problem by reducing it to costs is theoretically only possible in an empirically nonexistent static state. In statics prices and costs coincide, but in dynamics this is not the case (N.B., p. 495).

Von Mises briefly refers to the writings of a number of Soviet economists such as Tchaianov, Strumilin, Bucharin, and Varga, as were known to him through publications of Leichter and Varga.[20] Tchaianov sought to establish some kind of input-output relationships in physical terms between the various sectors of the economy, whereas Strumilin attempted to construct labor values, as did Varga. None of these attempts tried to cope with the crux of von Mises's problem, which is that of *economic* calculation.

The fifth author von Mises discusses is Karl Kautsky, whose rejection of the labor theory of value as the basis for economic calculation under socialism ("the hopeless task of measuring running water with a sieve") he notes with satisfaction.[21] Instead of labor values, Kautsky suggests that the new socialist society should at first employ what it finds readily available: the historical prices, expressed in gold currency, as established under the previous capitalist regime. These outdated prices are the result of a long historical process and are imprecise and imperfect, but they are the sole basis for a smooth continuation of the circulation process under socialism. These prices are at first left unchanged.[22] But whenever social interest demands it, the prices of individual goods are altered from the historical levels set by capitalism. Kautsky assumes this to be an easier task than to determine labor values for all goods. "Of course this must not be done in an arbitrary way."[23] Von Mises comments that unfortunately Kautsky fails to indicate how this could be done in

any other way than arbitrarily. Kautsky's suggestions are not worth further elucidation. Historical prices cannot be used in the long run, and Kautsky does not indicate *how* the necessary corrections should be made (N.B., p. 497).

Von Mises finally discusses Leichter, who rigorously adheres to the labor theory of value.[24] Von Mises repeats the arguments he made against this theory in his 1922 book *Die Gemeinwirtschaft*. The labor theory of value is useless for economic calculation because it is incapable of converting labor of different qualities to a single standard (the so-called "reduction problem") and because it does not take into account the natural factors of production. Leichter believes that the importance of the various labor tasks can be compared with each other. Von Mises says that such comparisons can of course be made, but that they will lead to different results, depending on the subjective valuations of the person who made them. And what does "importance" mean in this context? Does it refer to the importance of being on the job, of producing better work, or the arduousness of the work, and so forth? Each of these comparisons yields a different result, but only one can be the basis of the reduction factor. Leichter's contention that practice daily solves this problem by establishing wages (which was also Marx's solution to this problem)[25] is wholly erroneous. Wage rates are established in market exchange on the basis of subjective valuations, and the problem is precisely whether it is possible to reduce the various kinds of labor to a single standard in a society without market exchange. Leichter attempts his way out of this circular reasoning by stressing that modern wage negotiations have "nearly" nothing to do with "market haggling" in the normal sense of the word—supply and demand play "nearly" no role in determining the wage differentials. Von Mises notes that the double insertion of the word "nearly" robs these arguments of their basis.

The origin of Leichter's (and Marx's) error lies in an inadequate and unclear comprehension of the nature of the market mechanism and market price creation. To Leichter, the essence of the market seems to be "haggling" and reference to supply and demand. Von Mises states, however, that "haggling" may even be absent altogether. Even where "fixed" prices that "allow of no reduction" exist, the market mechanism acts in its usual way, except that the state of the market does not so much influence the price through the actual negotiations of the market parties, but through their behavior, such as the absence or

queuing of buyers and the corresponding behavior of the sellers.

Von Mises's other argument against the labor theory of value is that economic calculation should not only comprise labor, but also the material means of production, such as those provided by Nature. Leichter does not demonstrate how the problem of socialist economic calculation can be solved regarding these scarce goods, on which no labor has been spent. He does remark that "society" will set higher prices for these scarce goods. Von Mises argues that the problem is not whether society sets higher or lower prices, but whether it will be able to do so on the basis of the results of economic calculation. "It was never doubted that society can dispose: I maintain that it cannot do so rationally, i.e. on the basis of a calculation" (N.B., p. 500). Orthodox Marxists have been as incapable as others in finding a useful system of economic calculation for a socialist society.

"New Papers on the Problem of Socialist Economic Calculation"

In volume 60 (1928) of the *Archiv*, von Mises once again returned to the problem of discussing the contributions of a number of new authors in a piece titled "Neue Schriften zum Problem des sozialistische Wirtschaftsrechnung" ("New Papers on the Problem of Socialist Economic Calculation," henceforth "N.S.").[26] In the same number of the *Archiv* that his second article appeared, J. Marschak attempted to refute his original argument by showing that there is no rational economic calculation under capitalism either.[27] (See also the arguments of Lange and Dobb against the rationality of economic calculation under capitalism). Von Mises asks himself whether "a criticism of economic calculation under capitalism yields anything as proof of the possibility of economic calculation under socialism. [Marschak] simply follows the example of all other socialist authors: speak as little as possible of socialism and as much as possible of the inadequacies of the capitalist system" (N.S., p. 187). Marschak then seeks to demonstrate that economic calculation is possible under syndicalism. "That has never been disputed, least of all by me. But the scientific problem to be debated is economic calculation in a socialist, not in a syndicalist commonwealth. Marschak evades this, the real, question" (N.S., p. 187).

He next disposes of O. Neurath's new proposal for calculation in physical terms, on account of its inability to add

up different goods.[28] There follows a discussion of a book by the exiled Russian economist Boris Brutzkus, who extensively treats the problem of economic calculation under Soviet socialism.[29] Brutzkus concurs with von Mises that without economic calculation, rational economic action under whatever kind of economic system is impossible. He also is of the opinion that the fact that production requires the combination of three factors (land, labor, and capital) retains its validity and importance under socialism. Therefore, a calculation solely in terms of labor values is incapable of providing an indication of the greater or lesser profitability of enterprises. With that the drafting of a uniform plan, the essence of Marxism, becomes impossible. Von Mises quotes Brutzkus to the effect that:

> With this the socialist commonwealth, even with the entire instrumentarium of scientific theory and a gigantic statistical apparatus, is incapable of measuring the needs of its citizens and of evaluating them and is therefore not in a position to give the necessary directives to the producing units (N.S., p. 189).

Von Mises finds Brutzkus's book the first one that deals with the problem of the Soviet Union in a scientific way. All other works are of a descriptive nature and the presentation of the facts either suffers from an uncritical hatred of the Soviet Union (from which he therefore obviously wished to dissociate himself) or from its uncritical adulation.

By way of a final judgment on the decade's literature on the subject (which arose out of that undeniable political triumph of uncompromising socialism, the Russian revolution), von Mises quotes the prosocialist author Cassau as saying:

> All experiences of the past decade have bypassed the ideology of "proletarian socialism" without influencing it. Hardly ever before has this ideology had so many possibilities of extension, and has it been so barren, as during this heyday of the debates on the socialisation of the economy (N.S., p. 189).

Conclusion

On the basis of von Mises's replies to his socialist critics in the two articles discussed here, the following conclusions may be

drawn as to what von Mises really meant, especially as to what kind of socialist system his original critique was addressed.

1. On the basis of a theory of property rights, von Mises draws a clear distinction between Marxian socialism, properly so called, and syndicalism.

2. A socialist system under which property rights reside with decision makers *within* the separate firms, such as associations or workers' councils, he calls "syndicalism." Here the firms are independent; real competition exists between them. His critique is not aimed at syndicalism; rational economic calculation is possible here.

3. By socialism properly so called, von Mises understands a centrally planned and administered system, what is now often termed "state socialism." All firms here are subordinate to a central political authority. All production takes place according to an imperative, all-encompassing central plan. There are no independent firms and there is no real market or real competition between them. His critique is aimed at this variety of socialism, which he understood Marxists to want and to be in the process of establishing in the Soviet Union at that time.

4. All sorts of market socialist systems can be classified as either syndicalist or socialist according to their property rights structures. If they are syndicalist, they dress up the market in the terminology of socialist planning (in the words of P.C. Roberts). Several authors aver that this applies to Lange's "competitive solution." Such systems are no answer to von Mises's challenge. If they are de facto state socialist, they dress up socialism in pseudo-market terminology. His critique is also aimed at such systems.

5. The goal of socialism is postulated as the maximization of the individuals' welfare (and, by aggregation, social welfare), as defined by the individuals' *own* subjective preferences. Socialism operates under consumer sovereignty (or under citizen and consumer sovereignty, if one admits collective and merit goods). It expressly excludes the state of "planners' sovereignty." This must not be interpreted as a normative judgment on the part of von Mises. Writing before the advent of Stalinist totalitarianism, he (as well as his socialist opponents) conceived of socialism as seeking to maximize its citizens' welfare as they saw it themselves.

6. In the light of the above qualifications, his critique may be reformulated as follows: "Socialism, properly so called, is incapable of maximizing individual and social welfare based on

individual preferences."

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[1] *The Journal of Libertarian Studies* 5, no. 1 (Winter 1981), with articles by R. Bradley, D. Lavoie, and D. Steele. K.I. Vaughn, "Economic Calculation under Socialism: the Austrian Contribution," *Economic Inquiry* 18 (1980). P. Murrell, "Did the Theory of Market Socialism Answer the Challenge of Ludwig von Mises? A Reinterpretation of the Socialist Controversy," *History of Political Economy* 15, no. 1 (1983).

[2] R. Neck, "Die 'Sozialismusdebatte' in Lichte ausgewählter neuerer Entwicklungen der ökonomischen Theorie," and S.G. Schoppe, "Das Problem der Wirtschaftsrechnung in einer Zentralverwaltungswirtschaft aus neuer bürokratietheoretischer Sicht," both in *Jahrbuch für Sozialwissenschaft*, vol. 33 (1982).

[3] A. Bergson, "Socialist Economics," in H.S. Ellis, ed., *A Survey of Contemporary Economics* (Philadelphia: Blakiston Co., 1948), p. 446. Two decades later, Bergson was less convinced of the efficiency of the "competitive solution." See A. Bergson, "Market Socialism Revisited," *Journal of Political Economy* 75, no. 5 (1967), pp. 657–8 and 671–72.

[4] See, for instance, M. Dobb, "Welfare Economics and the Economics of Socialism," in part II, *A Socialist Economy* (Cambridge: Cambridge University Press, 1969); and P.M. Sweezy, *Socialism* (New York: McGraw-Hill, 1949).

[5] O. Lange, "The Computer and the Market," in C. Feinstein, ed., *Socialism, Capitalism and Economic Growth: Essays Presented to M. Dobb* (Cambridge: Cambridge University Press, 1967). On this point see also G.R. Feiwel, "On the Economic Theory of Socialism: Some Reflections on Lange's Contributions," *Kyklos* 25 (1972): 614–16.

[6] F.A. Hayek, "The Present State of the Debate," in F.A. Hayek, ed., *Collectivist Economic Planning* (London: Routledge, 1935); also his "Socialist Calculation III: The 'Competitive Solution'," *Economica*, no. 26 (1940). See also O. Lange, "On the Economic Theory of Socialism," in B.E. Lippincott, ed., *On the Economic Theory of Socialism* (New York: 1964), pp. 63–64.

[7] P.C. Roberts, "Oskar Lange's Theory of Socialist Planning," *Journal of Political Economy* 79 (1971).

[8] G. Warren Nutter, "Markets without Property: A Grand Illusion," in E.G. Furubotn and S. Pejovich, eds., *The Economics of Property Rights* (Cambridge, Mass.: 1974).

[9] L. von Mises, "Die Wirtschaftsrechnung im

sozialistischen Gemeinwesen," *Archiv für Sozialwissenschaft und Sozialpolitik* 47 (1920), translated into English by S. Adler and published in Hayek, *Collective Economic Planning*.

[10] L. von Mises, *Die Gemeinwirtschaft*, Jena (1922), translated by J. Kahane under the title *Socialism* (London: 1936).

[11] See L. von Mises, *Socialism* (reprint of the 1951 edition) (London: Jonathan Cape, 1974) pp. 516–21. His appendix, with the excerpt of the 1924 article, was added to the revised second German edition of 1932, which was used for J. Kahane's English translation of 1936. The excerpt comprises 5–1/2 of the original's thirteen pages (pp. 490–95 of pp. 488–500) and deals with only two (Polanyi's and Heimann's) of the original six counterproposals.

[12] L. von Mises, "Neue Beiträge zum Problem der sozialistischen Wirtschaftsrechnung," in *Archiv für Sozialwissenschaft und Sozialpolitik* 51 (1924).

[13] A. Schäffle, *Bau und Leben des sozialen Körpers*, vol. 3 (Tübingen: 1878).

[14] "Consumer freedom of choice" means that the central planners authoritatively determine the volume, assortment, and quality of the consumer goods, but the consumers are free to spend their money income as they please. See also P.J.D. Wiles, *The Political Economy of Communism* (Oxford: 1962), pp. 35, 96–97.

[15] K. Polanyi, "Die funktionelle Theorie der Gesellschaft und das Problem der sozialistischen Rechnungslegung," in *Archiv für Sozialwissenschaft und Sozialpolitik* 52 (1924).

[16] See K.C. Thalheim, "Formen und Bedeutung des Eugentums an Produktionsmitteln in marktsozialistischen Systemen," in C. Watrin, ed., *Studien zum Marktsozialismus* (Berlin: 1976), pp. 66–68.

[17] See on this point P.C. Roberts, "Oskar Lange's Theory."

[18] E. Heimann, *Mehrwert und Gemeinwirtschaft* (Berlin: 1922).

[19] This should actually be called "consumer-and-worker sovereignty" or, in Rothbard's words, "individual self-sovereignty in the market" (M.N. Rothbard, *Man, Economy and State*, vol. 2. Princeton, N.J: 1962, p. 562). For the sake of simplicity I abstract here from collective and merit goods.

[20] For an interesting review of the various attempts to solve the problem of socialist economic calculation in the Soviet Union in 1919–20, see A. Nove, "Marx, the Market and 'Feasible Socialism'," in U. Gärtner and J. Kosta, eds., *Wirtschaft und*

Gesellschaft. Festgabe für O. Sik (Berlin: Dunker und Humblot, 1979).

[21] K. Kautsky, *Die proletarische Revolution und ihr Programm* (Berlin: Dietz Nachfolger, 1922).

[22] O. Lange also suggested taking the historical prices inherited from capitalism as a starting point. See O. Lange, "On the Economic Theory of Socialism," p. 86.

[23] K. Kautsky, *Proletarische Revolution*, p. 322.

[24] O. Leichter, *Die Wirtschaftsrechnung in der socialistische Gesellschaft* (Vienna: Verlag der Wiener Volksbuchhandlung, 1923).

[25] See K. Marx, *Das Kapital*, Erster Band (Berlin: 1975), p. 59.

[26] L. von Mises, "Neue Schriften zum Problem der sozialistische Wirtschaftsrechnung," *Archiv für Sozialwissenschaft und Sozialpolitik* 60 (1928).

[27] J. Marschak, "Wirtschaftsrechnung und Gemeinwirtschaft," *Archiv für Sozialwissenschaft und Sozialpolitik* 51 (1924).

[28] O. Neurath, *Wirtschaftsplan und Naturalrechnung* (Berlin: E. Laub, 1925). Neurath was the prime exponent of a moneyless socialist economy and of planning in physical terms.

[29] B. Brutzkus, *Die Lehren des Marxismus im Lichte der russischen Revolution* (Berlin: H. Sack, 1928).

Rent Seeking: Some Conceptual Problems and Implications

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There is increasing use of the concept of rent seeking to describe resource-wasting activities of individuals and groups seeking wealth transfers.[1] A wide range of activities are presumably of this type including agricultural price supports, occupational licensing, labor unions, import and export quotas, and education subsidies. The term *rent seeking* is used to describe attempts both to obtain and to maintain wealth transfers. Although the terminology of rent seeking is quite recent, the behavior that it describes "has been with us always" (Buchanan, 1980, p. 3). Moreover, rent-seeking behavior has become more important as institutional changes have created opportunities that did not exist when there was general agreement that the state should play a more limited role. Mancur Olson (1982) contends that the increase in specialized pressure groups is a key factor in the declining economic growth rate of nations—adding to the criticism of this widespread phenomenon in which organized groups use the power of the state to further their own economic ends.

There is an implicit assumption in the literature that rent-seeking behavior can be objectively identified and that waste due to rent seeking can, at least in principle, be measured (Posner, 1975; Tullock, 1967). The problem of identifying rent-seeking activity under real world conditions is shown in this article to be similar to that of determining monopoly waste and other market inefficiencies.[2] It follows that rent-seeking waste can only be identified by substituting the observer's own standard of value. Moreover, if an activity is a legitimate function of the state, it is held that the lobbying associated with instituting and maintaining the activity is not necessarily wasteful. Consequently, since the appropriate role of the state is normative, identifying a particular activity as wasteful must necessarily be based on norms that lie outside of economic theory.

The procedure of this article is as follows. Shortcomings of the conventional long-run equilibrium approach used in identifying monopoly waste are first described. The problem of groups attempting to achieve income transfers through the power of the state—nonmarket rent seeking—is then discussed. The lack of an appropriate benchmark in identifying inefficiency and waste under real world conditions of uncertainty (which renders information costly and is a major source of "government failure") is emphasized throughout the analysis. Despite the fact that rent-seeking theory provides no objective means of separating beneficial from wasteful government activities, it is argued that such waste exists because of imperfect coordination in political markets. There is increasing concern about the effects of activities by individuals and groups on the economic and political order and a growing perception that redistribution is the explanation for many government activities ostensibly justified on the basis of the "public interest." Implications of the increase in redistributive activities are discussed in the last section of the article. Although economic education is identified as a necessary precondition in reducing the scope for rent-seeking behavior, it is argued that ethical considerations are inherent in the use of state power to stifle competition where individuals are assumed to have the right to engage in mutually beneficial exchange.

Downward-Sloping Demand Curves and Resource Misallocation

There is a close relationship between rent-seeking theory and conventional measurements of monopoly waste. Monopoly is traditionally defined as a situation where demand is not perfectly elastic (Friedman, 1976, p. 126). In analyses of the resource (or "welfare") cost of monopoly by A.C. Harberger, Richard Posner, Gordon Tullock and others, long-run equilibrium is taken as the point of reference, and real world markets are compared with the perfectly competitive equilibrium. If the economy were perfectly competitive, there would be no profits or losses. Consequently, in this long-run competitive equilibrium framework, all profits are due to monopoly, are considered to be permanent, and imply a welfare loss (Littlechild, 1981).

The alternative to considering monopoly as a market situation where demand is not perfectly elastic is to view market competition as a *process* (Hayek, 1948; Kirzner, 1973, 1979). In the analysis of firms facing downward-sloping demand curves,

the market process approach stresses the necessity of using a model that allows above-average rates of return due to entrepreneurship. While there is no role for entrepreneurial activity in competitive equilibrium where all decisions by market participants are perfectly coordinated, there are often profit opportunities for alert entrepreneurs under real world conditions where markets are seldom (if ever) in equilibrium.

Consider the example of an entrepreneur who develops a product before other potential producers and, consequently, faces a downward-sloping demand curve. The seller charges the monopoly price, OP (figure 1). In the conventional long-run equilibrium approach, the rectangle (*T*) is considered to be monopoly profit and the triangle (*W.C.*) a deadweight resource cost.[3] In this approach, all traces of monopoly power represented by less than perfectly elastic demand involve a "welfare cost" and are branded as socially harmful. However, the relevant alternative to output oq_1, for the time being at least, is not OQ_2, but rather no output at all. Under these conditions, it is inappropriate to depict the producer's action as socially harmful and generating a deadweight loss (*W.C.*). Instead, using the same analytical tool, the action of the decision maker can be said to generate a social gain given by his own entrepreneurial profit (*T*) plus the consumer surplus (*C.S.*) (Littlechild, 1981, p. 358).

The long-run equilibrium approach overlooks or discounts the importance of entrepreneurial activity to cope with change and the returns necessary to induce the decision maker to perform that function. In the words of Buchanan (1980, p. 5): "By seeking always to find new opportunities . . . and to exploit more fully existing opportunities, profit-seeking entrepreneurs generate a dynamic process of continuous resource reallocation that ensures economic growth and development." In marked contrast, there is no scope for beneficial profits in the conventional approach to economic analysis. The extra income earned by successful entrepreneurs is taken to be a measure of welfare loss rather than the return necessary to evoke beneficial entrepreneurial activity. This approach fails to recognize that profits and losses are the signals that direct economic activity in a market economy. In the words of von Mises (1974, p. 119): "Profits are never normal. They appear only where there is a maladjustment. . . . The greater the preceding maladjustments, the greater the profit earned by their removal." For economic decision makers who are risk averters, it may be necessary to have even higher expected returns to remove maladjustments in

resource use. Thus it is necessary to consider a long-run view of the market process in understanding the importance of entrepreneurial returns.[4]

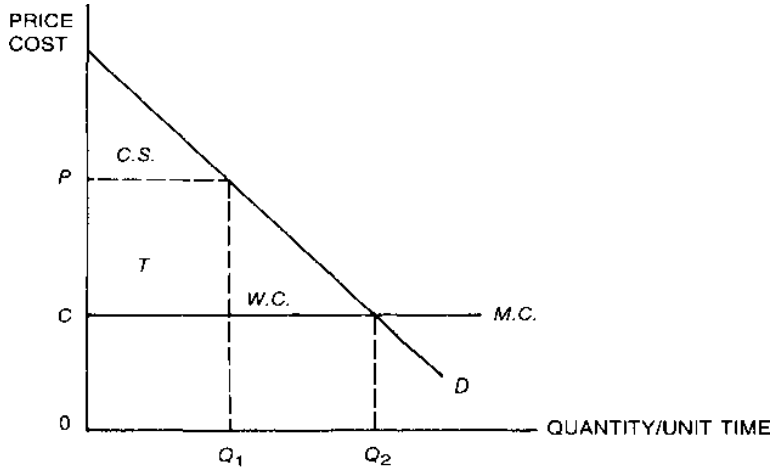

Figure 1. Monopoly Waste—Conventional Approach

The long-run equilibrium framework used in identifying the welfare cost of monopoly is inappropriate under real world conditions where returns include short-run disequilibrium profits due to entrepreneurial alertness. The entrepreneurial profits which may appear to be "rents" from a short-run perspective are, in fact, the driving force of the market system.[5] Moreover, since the amount of entrepreneurial activity hinges on the expected returns, a social policy which arbitrarily confiscates the returns due to entrepreneurial alertness will inevitably discourage such alertness in the future (Kirzner, 1973). In summary, by considering all downward-sloping firm demand curves to be socially wasteful, conventional analyses of monopoly fail to take into account the nature and role of profits in the market process.

The long-run equilibrium framework used by Tullock, Posner, and others in analyzing rent-seeking waste associated with monopoly is also inappropriate. Although rent seeking mainly focuses on transfers obtained through the aegis of the state, the term is also used to describe activities motivated by lure of profits when the monopolies are not rooted in government power.[6] Specifically, it is held that rent-seeking resource waste in the market situation shown in figure 1 consists not only of the traditional deadweight loss (*W.C.*), but also of some or all of the transfer (*T*) which, it is argued, is dissipated in

attempts to obtain or maintain monopoly profits. As suggested, however, the description of these areas as resource waste ignores the benefits of entrepreneurial activity. Although the competitive entrepreneurial process (if successful) generates profits, the cost inherent in the uncertainty and innovation associated with attempts to obtain such profits should not be regarded as waste since effective resource use "will continue to require resources devoted to coping with and initiating changes" (Worcester, 1982, p. 86). Thus, entrepreneurial activity, reflected in downward-sloping demand curves, results in the creation of added value rather than rent-seeking waste. Moreover, except when monopoly is defined in terms of government restrictions on entry, there is no way to distinguish downward-sloping demand curves due to entrepreneurial foresight from other cases of "monopoly." Consequently, in the case of downward-sloping demand curves, there is no way to distinguish rent-seeking activity from the profit seeking of the market process except where competition is restricted through state power.

Nonmarket Rent Seeking

Rent seeking, as suggested, is mainly used to describe the effects of attempts by groups to achieve profits through government restrictions on entry (Buchanan, 1980, p. 9).[7] So long as the functions of government are restricted to those of the classical minimal state, there are relatively few opportunities to obtain income transfers in this way. As the functions of government have increased, however, there has been a concomitant increase in attempts by individuals and groups to create income opportunities through political activity. Lee (1983, pp. 15–16) describes the increase in rent-seeking activities in the United States:

> For over a century most government activity, as measured by revenue raised and spent, took place at the state and local level where intergovernmental competition imposed restraint. . . . In the environment established by this government restraint there was little to gain from political enterprise, or transfer activity, but much to gain from market enterprise, or productive activity. . . . But the existence of political power, even when restrained, establishes potential opportunities for

> some to benefit at the expense of others that will never be completely ignored. . . . There can be no reasonable doubt that there has been a dramatic expansion in the range of activities that have been subjected to government control over the last century.

Consider, as an example of rent seeking, the case of agricultural price supports where product prices and producer incomes are increased by restricting output through the use of production allotments. Traditionally it has been assumed that producers initially assigned allotment rights receive windfall gains. Posner (1975, p. 809), assuming that supply is perfectly elastic, however, shows that, "at the margin, the cost of obtaining a monopoly is exactly equal to the expected profit." If this is correct, the cartel gains would be completely dissipated through competitive rent-seeking activity. The forgone consumer surplus would not be converted into monopoly profit but would instead be dissipated in the form of real resource expenditures including lobbying and other activities required to obtain (and maintain) the favorable legislation (figure 2).

In figure 2, as cost increases from *MC* to MC_9, the entire value of the expected returns is exhausted through rent-seeking activity. This rent-seeing model then is similar to the theory of the firm in the conventional equilibrium approach of neoclassical theory. In market equilibrium, all decisions perfectly mesh, all profit opportunities are exhausted, and since competition is no longer an active force, there is no scope for entrepreneurship. Similarly, there is no scope for rent-seeking activity in the equilibrium depicted in figure 2. Stated differently, the equilibrium condition depicted implies the cessation of rent seeking since all opportunities to secure income transfers through political means have been exhausted and there is no further potential for gain.

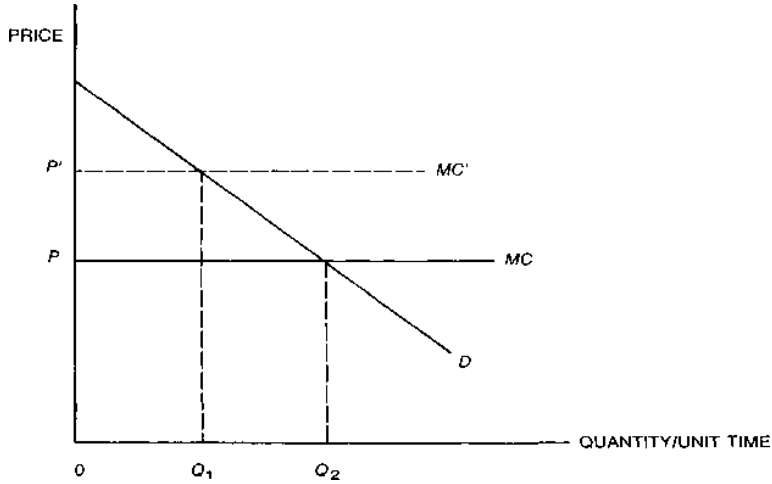

Figure 2. Rent Seeking—Constant Costs and Competitive Conditions

Noncompetitive Rent Seeking

Tullock argues that the rent-seeking incentive remains "even if we can find an equilibrium" (1980b, p. 98). He contends that costs are likely to be increasing rather than constant (as in figure 2) so that "the supply curve slants up and to the right from its very beginning" (ibid). Using an experimental game with some special assumptions about individual knowledge, Tullock examines the properties and outcomes of strategy games. In the specific game analyzed, a fixed prize is offered and participants are asked to make sealed bids for the prize. It is assumed that "if there is a correct solution for individual strategy, then each player will assume that the other parties can also figure out what the correct solution is" (ibid., p. 99). Marginal adjustments in bids are allowed and players are considered to be able to compare marginal costs and marginal returns. Tullock finds situations in which individual players will make contributions larger than the expected prize (overbidding) and cases in which the sum of players' bids is less than the value of the prize (underbidding). Since both underbidding and overbidding are observed, there appears to be no general tendency toward exact dissipation of the prize. Thus, it is argued, the competitive model where the expected return is exactly wasted cannot be taken as *the* general rent-seeking model (Tollison, 1982, p. 586).

It is not clear, however, that games that assume that individuals can figure out the correct strategy by comparing

marginal costs and returns provide any useful information about rent-seeking activity under real world conditions of uncertainty. In rent seeking through the political process, there is uncertainty both about the size of the prize (value of the advantage secured through political means) and the probability of success in achieving it. Under these conditions, one might expect each rent-seeking group to invest in political activity so long as the expected benefits exceed the expected costs. As in the case of market entrepreneurship, however, there is no reason to think that returns would be exactly dissipated where choices are always shrouded in uncertainty. The decision maker faces similar information problems whether the wealth-seeking activity is directed toward the market process or the political arena. In either case, neither the alternative outcomes nor the probabilities of their occurrences can be fully known at the time of choice—raising questions as to the usefulness of probability theory in analyzing choice.[8]

Although individual interpretations and expectations will differ where real world conditions are constantly changing, there are opportunities for individuals and groups to engage in rent seeking through the political process just as there are opportunities for alert entrepreneurs in markets for goods and services. It is ironic that while profit maximization in both conventional neoclassical theory and rent-seeking theory is developed within an equilibrium framework, the emphasis placed on wealth-seeking behavior is quite different. In the conventional theory of the firm, the focus is on equilibrium conditions and entrepreneurship is largely neglected (Kirzner, 1973, 1979; Schultz, 1980). In the case of rent seeking, in contrast, the focus is on lobbying and other activity of groups attempting to use the political process for economic gain.

Problems in Identifying Rent-Seeking Waste

Since rent seeking is but one form of economic waste or inefficiency, first consider the general problem of identifying inefficiency in economic activity. Economic efficiency studies in conventional welfare economics typically use the benchmark of perfect competition which assumes price-taking behavior and perfect markets requiring perfect communication, instantaneous equilibrium, and costless transactions (Hirshleifer, 1980, p. 232). Since no real world market can match these conditions, *all* real world markets are inefficient on the basis of this criterion.[9]

Consider, for example, conventional monopoly theory which evaluates the extent of monopoly waste by comparing market conditions against the perfectly competitive norm (Armentano, 1982). Resource waste (as just shown) will appear to be an important problem on the basis of this criterion even when the extra income earned in any period is due to entrepreneurship. Moreover, market failure in the form of advertising, incomplete information, and externalities (as well as monopoly) will inevitably appear to be pervasive when real world markets are compared against the competitive norm (Pasour, 1981).

Demsetz (1969) has labeled this procedure of comparing existing "imperfect" arrangements with an unattainable ideal "the nirvana approach." Although it is clearly inappropriate to use a model that assumes away problems facing the entrepreneur in assessing entrepreneurial efficiency, no one has discovered an appropriate benchmark for evaluating the efficiency of real world choices made under conditions of uncertainty and costly information. Efficiency inevitably involves valuation; to be meaningful in a choice sense, any efficiency measurement must be based on the costs and returns confronting the decision maker. It is opportunity cost that influences individual choice, however, and the value of the sacrificed alternative to the decision maker cannot be determined by an outside observer. Moreover, the ultimate end of action is always the satisfaction of desires of the acting individual and "no man is qualified to declare what would make another man happier" (von Mises, 1966, p. 19). Since individuals base choices on data that are inherently subjective, the economist can identify waste in the actions of other people only by imposing his own standard of value (Buchanan, 1979, p. 61; Sowell, 1980, p. 218).[10]

A similar problem arises in identifying wasteful rent-seeking behavior where individuals attempt to achieve wealth transfers through the political process. Little attention has been devoted to the problem of identifying wasteful behavior in the rent-seeking literature. The examples of Tullock (1967) and Posner (1975), using the competitive norm as a benchmark, suggest that efforts to achieve monopolies, tariffs, and labor unions are rent-seeking waste. Bhagwati (1982), on the other hand, argues that rent-seeking behavior is not necessarily wasteful.[11] In the case of lobbying to restore free trade, for example, it is contended that rent-seeking activities may be beneficial or harmful depending upon whether "the resources used up in restoring free trade that is the lobby's economic advantage are socially more valuable

than the social gains from free trade" (Bhagwati, 1982, p. 997).

In a book on income transfers, Tullock (1983) suggests that harmful redistribution can be identified by the motive.[12] The effect of government intervention, however, is not determined by the motives of those responsible for obtaining and maintaining a particular activity. The effects of minimum wage legislation, for example, are similar whether or not the motive of the proponents is self-serving. Moreover, most transfer programs involve a mix of motives; in analyzing any real life redistributive activity, there is no reliable way to determine *the* choice influencing motive.

The Bhagwati and Tullock analyses have the same shortcomings as all other approaches based on measurements of social costs and gains. The opportunity cost of any decision, as suggested above, depends upon the decision maker's anticipation of future conditions. Thus, opportunity cost is inherently subjective and distinct from data that can be objectively measured by the outside observer (Buchanan, 1969). The difficulties are magnified when the economist attempts to make interpersonal comparisons of gains and losses in utility.[13] Utility is a subjective concept and gains and losses in utility by different individuals cannot legitimately be measured or weighed against each other (Rothbard, 1982, p. 204).

Consider again the problem of identifying inefficiency on the part of the individual decision maker. If the economist identifies an activity as wasteful and the decision maker continues the activity, one cannot legitimately conclude that the activity is wasteful; instead, it might be concluded that the analyst has not measured the choice-influencing opportunity costs and benefits. Similarly, if after pointing out the wastes of rent controls, the necessary political changes are not made, what conclusion can one draw?[14] In attempting to identify institutional inefficiency, the economist faces problems similar to those in identifying inefficiency on the part of the individual decision maker.[15]

Once, it is recognized that cost and value are subjective concepts, it becomes clear that "net social benefit is an artificial concept of direct interest only to economists" (Littlechild, 1978, p. 92). Consequently, the effects of trade barriers arising through rent-seeking activity cannot be determined by comparing the gain in utility of producers at the expense of consumers. In the words of Robbins (1981, p. 5):

> [W]henever we discuss distributional questions, we

> make our own estimates of the happiness afforded or the misery endured by different persons or groups of persons. But these are *our* estimates. There is no objective measurement conceivable.

Thus, utilitarian approaches do not present a way of determining which activities are wasteful. Furthermore, as shown in the following section, whether or not an activity is considered to be rent seeking hinges on one's view of the legitimate role of the state.

Rent Seeking and the Role of the State

Consider first the minimal state where law and order are deemed to be the only appropriate functions of government. In this case, the lobbying and other resource costs necessary to achieve and maintain the proper level of support for these essential activities would not be rent-seeking waste. On the other hand, resources expended by teachers to enact (or preserve) a system of public education would be wasteful if education were not a proper function of the state. Thus, as in other cases of alleged inefficiency, rent-seeking waste can be identified only by substituting the observer's own standard of value.

Consider again the example of education. It is often argued (at least by educators) that education is a public good and, consequently, is a proper function of the state. If education is a proper role of the state, the use of resources devoted to lobbying efforts to improve schools and teachers' salaries would not necessarily be wasteful. Resources used in this way will appear to be wasted, however, if the real world is compared with an ideal polity where no information or transactions costs are required to initiate or maintain the appropriate functions of the state. Labeling the resource cost required to maintain legitimate political activity as rent-seeking waste ignores the problem of the "ideal benchmark" in evaluating government activities, and is another example of the nirvana approach where the real is compared with an unobtainable ideal.

A real world market will always appear inefficient when measured against the norm of perfect competition, and a real world political institution will always appear inefficient when compared to an idealized polity. The problem of identifying actual examples of "political failure" is similar to that of isolating examples of "market failure" in the sense that no one has

discovered an appropriate benchmark against which to compare real world political institutions when information problems, transactions costs, and uncertainty are taken into account. In the absence of such a benchmark, there is no legitimate way to measure the efficiency of activities in the real world political process. It can be said, however, that to the extent that any particular activity is an appropriate function of government, it is not legitimate to consider all resources associated with securing and maintaining that activity as wasteful rent seeking.

In reality, there is no objective procedure for distinguishing productive from wasteful activities.[16] Consider several widely cited reasons for government intervention. The public goods model is taken by many economists to justify a wide range of activities including public education, income redistribution, publicly subsidized research, and national defense. Externality theory is used to justify a host of government programs, agencies, and activities including the Environmental Protection Agency, the Occupational Safety and Health Administration, the United States Department of Agriculture, SCS and land-use zoning. Monopoly theory is used to rationalize various antitrust policies. Many other restrictions on competition are justified on the basis of consumer ignorance. There is widespread disagreement, however, both as to when these market failure factors justify government intervention and as to which activities are legitimate functions of the state.[17] Nor is there agreement as to a benchmark against which to evaluate the efficiency of government activities in those areas where government intervention *is* deemed to be desirable.[18] Consequently, in the absence of a consensus on these issues, there is no objective basis for identifying which lobbying efforts are wasteful and which are beneficial.

Consider agricultural policy and the farm problem. The public interest model holds that the purpose of federal agricultural programs is to provide a remedy for chronic price and income instability in agriculture. Although agricultural price support programs are frequently attacked in the press and by many economists as prime examples of wasteful government activity, many agricultural economists justify these programs on market failure grounds.[19] For example, a recent analysis of the milk price support program concluded: “The relatively small implied consumer-to-producer transfers of the late 1970’s resulting from classified pricing may be a small price to pay for the stabilizing aspect of classified pricing” (Song and Hallberg,

1982, p. 7).

Agricultural marketing orders are frequently justified on similar grounds. Marketing orders for fruits, vegetables, and specialty crops were provided to agricultural producers ostensibly as a tool for achieving "orderly marketing" conditions under the Federal Marketing Agreement Act of 1937. Oranges and other crops marketed under federal marketing orders are subject to quantity and/or quality controls reducing the amounts available for sale. Despite the fact that marketing orders from their inception were intended as means of increasing producer incomes (French, 1982), economists continue to attempt to justify this type of restriction on competition on the basis of economic efficiency.

> These regulations are designed to compensate for, or overcome certain characteristics of agricultural markets—imbalances in marketing power, instability, incomplete information, and the external effects of individual firms' actions—that prevent free trading from being fully efficient (U.S. Department of Agriculture, 1981, p. 81).

Opinions of economists and the public at large vary widely as to whether incomplete information, imbalances in market power, price instability, and other market imperfections provide a legitimate basis for government price support programs in agriculture. What are the implications for the theory of rent seeking? If an orange-marketing order, for example, is considered to be a legitimate function of government, lobbying efforts to maintain the marketing order would not necessarily be rent-seeking waste. If, however, it is held that restrictions on competition of this type are not justified, the activity of obtaining or maintaining the marketing order would be considered rent-seeking waste.

The situation is similar in the case of labor cartels. Richard Freeman and James Medoff (1979) contend that the cartel view of labor unions as rent-seeking organizations is seriously misleading. While accepting the idea that one goal of unions is to raise wages, they argue that by providing workers with a "voice" in the workplace as well as in the political arena, "unions can and do affect positively the functioning of the economic and social systems" (p. 70). If one agrees with Freeman and Medoff that the positive effects of unions are often more important than their negative effects, the lobbying efforts associated with

obtaining and maintaining such unions would not necessarily be considered rent-seeking waste. If, however, the net effect of unions is deemed to be negative, resources devoted to unionizing activities would be considered waste.

A similar problem arises in the evaluation of lobbying activities to eliminate existing restrictions on competition. Consider the examples of interest rate ceilings and price controls on natural gas. If the restrictions are considered to be harmful distortions of the market process, lobbying efforts to eliminate them cannot legitimately be considered as waste.

A difference of opinion concerning the desirability of government intervention is evident in many areas including education and research subsidies, occupational licensing, and environmental and safety regulations. Are those programs merely due to imperfections in the political process that often favor the few at the expense of the many? Or, are there bona fide market failure reasons for such programs?[20] In the absence of a benchmark against which to measure the performance of the real world political process, there is no objective procedure for determining when government intervention is warranted or for judging the efficiency of government activities.[21] In all of the examples discussed here, an activity is beneficial or harmful depending upon the observer's values.

In reality, then, there is no objective procedure either in determining which activities of the state are illegitimate, or in determining the extent of rent-seeking waste associated with activities considered to be legitimate.[22] While economic theory is useful in explaining activities of individuals and groups in using the state to further their own ends, it does not provide an objective procedure for determining inefficiency or rent-seeking waste. Since utility and cost are subjective, they cannot be measured and aggregated by outside observers to determine social cost or utility. Consequently, on strictly economic grounds, the economist cannot reject (or advocate) any public policy (Rothbard, 1982, p. 212). Economic theory, in this sense, is not a substitute for ethical or philosophical analysis.

Decentralized markets are a necessary condition in maintaining individual freedom. The market, based on free exchange, is the only voluntary method of allocating resources. Yet, even if one agrees that the central issue is freedom and that reliance on market signals where feasible is ethically superior to known alternatives, the question just alluded to is still present, namely, what is the proper role of the state in a market

economy? There are almost as many answers to the question as there are economists, philosophers, political scientists, and other analysts studying the problem. Consider Albert J. Nock's attempt to discriminate between productive and unproductive activities.

Nock suggests that man attempts to increase his welfare through two approaches—the economic and the political. The economic means is defined to involve the production and exchange of wealth whereas the political means involves the uncompensated appropriation of wealth produced by others (Nock, 1973, p. 26). The Nock approach to isolating wasteful activities is operational, however, only if one accepts Rothbard's conclusion that "no act of the State can ever increase social utility" (1982, p. 13). In this case, there is an unambiguous standard by which to identify rent-seeking activity. *All* activities by individuals and groups designed to achieve involuntary wealth transfers (programs financed by taxes, price increases through quotas, and so on) would, by definition, be labeled rent-seeking waste.

The Nock approach does not appear to be of much help, however, in the task of defining the scope of the "limited-government" market economy. Consider the example of lobbying by lawyers or police for increased appropriations for law and order. If successful, these activities clearly result in an uncompensated appropriation of wealth produced by others. If, however, law and order are legitimate functions of the state, expenditures to improve these services are not necessarily wasted. Moreover, the efficiency of production of law, order, and other services deemed appropriate by the state is not susceptible to measurement. In the words of Knight, "The question whether any type of political machinery will work 'better' or 'worse' than another is . . . a matter of opinion" (1935, p. 311). And, since opinions vary widely, the identification of rent-seeking activities is inevitably based on value judgments (often concealed ones).

The analysis of this article suggests that neither the appropriate role of government nor rent-seeking waste can be identified through the cost-benefit approach. If one accepts the limited state as the norm, there is at least a partial basis for identifying rent-seeking activities. Efforts by the steel industry to limit imports, for example, would be rent-seeking waste in the eyes of one convinced of the merits of free trade. There remains the normative problem, however, of specifying the appropriate functions of government or, alternatively, of determining *how limited* the role of the state should be.

Rent Seeking—Measurement versus Existence and Implications

The fact that wasteful government activity cannot be objectively determined does not suggest that the problem of rent seeking is unimportant. Stated differently, the fact that economists cannot identify or measure inefficiency in economic or political markets implies neither the absence of rent-seeking waste nor that political markets are efficient in the sense that there is no scope for improvement.[23] In the remainder of this article, it is assumed that use of the power of the state to achieve wealth transfers is an increasingly serious problem. Applying an insight from Kirzner's entrepreneurial analysis, there are opportunities to improve the operation of political markets because political decisions (like those of market participants) are never fully coordinated. The following analysis describes the effects of widespread rent seeking, problems in reducing redistributive activities, and reasons why a constitutional change may be required to reduce transfer activity.

There is evidence that the "special interest state" in which various segments of society organize, each seeking to get its share of government largesse, has increased markedly in recent years.[24] In achieving their objectives, groups use their lobbying power to influence government policy bringing about an increase in the complexity and scope of government.[25] Olson (1982) argues that the effect of the increase in specialized pressure groups is to gradually strangle the economy.[26] Moreover, as special interest groups become more important and distributional issues more significant, political life tends to be more divisive.

Olson's argument concerning the harmful effects of transfers achieved through organized group activity is similar to that of F.A. Hayek. Hayek (1979) argues that the chief threat to the market order comes not from the selfish actions of individuals but rather from the selfishness of organized groups who "have gained their power largely through the assistance government has given them to suppress those manifestations of individual selfishness which would have kept their action in check" (p. 85).[27] While individual selfishness will in most instances lead the individual to act in a manner conducive to the preservation of the spontaneous order of society, the desire of individuals to become a closed group "will always be in opposition to the true common interest of the members of a Great Society" (Hayek,

1979, p. 90). The interest of organized groups is typically either to prevent entry of others wishing to share the profits or to avoid being driven out of production by lower-cost producers. Hayek suggests that more injustice is done in the name of group loyalty than from selfish individual motives and he emphasizes the implications of redistributive behavior on the political system.

> So long as it is legitimate for government to use force to effect a redistribution of material benefits . . . there can be no curb on the rapacious instincts of all groups who want more for themselves. Once politics becomes a tug-of-war for shares of the income pie, decent government is impossible (p. 150).

Thus, it might be argued that an "economic education revolution" is a necessary precondition for achieving a consensus concerning the need to limit the role of government and for devising institutional arrangements that can make these limits stick (Dorn, 1982). This approach implies that a shift in the focus of economic analysis is warranted—a shift toward political economy emphasizing the framework of institutions and rules within which people can effectively cooperate in pursuing their own diverse ends through decentralized coordination of their activities (Yeager, 1976).

Even if most people recognize the desirability of limiting government activity, however, there is a "you-first" problem in reducing transfers (Anderson and Hill, 1980). Each recipient of government aid has an economic incentive to favor a reduction in the transfers received by other people while maintaining his own. Thus, it might be argued that the need for an education revolution in ethics is no less important than in economics.[28] If individual freedom is accepted as an ethical standard, individuals have the right to engage in mutually beneficial exchange. Moreover, income redistribution through the aegis of the state inevitably involves coercive restrictions on free exchange and infringements on individual freedom. Thus, if people were convinced that it is ethically wrong to achieve wealth increases through political means, the cost of engaging in rent-seeking activities would increase with a consequent decrease in these activities. However, as discussed, the case for reducing redistributive activities has also been made on nonethical grounds. In the words of Mitchell (1983):

> Rational individual and group action will increase transaction costs, produce a smaller social product, and in the end leave most worse off. This is the disastrous dynamic of our democracy. . . . We face the dilemma of individual and collective rationality that general ruin can be the outcome of rational action (pp. 365–66).

Whether or not the problem of rent-seeking is viewed as an ethical issue, it is likely that a significant reduction in the bargaining society will require constitutional reform.[29] Buchanan (1977) suggests that the cost of the present system may become so great that the individual transfer recipient will agree to a change in an existing rule that imposes limited damages on him in exchange for a reciprocal agreement by others for another set of changes that will greatly benefit him. An analysis of alternative methods of limiting the harmful effects of special interest groups through constitutional reform is beyond the purview of this analysis. Possibilities include limits on taxation and spending, reverse revenue sharing, and Hayek's proposal to entrust the general rules of just conduct to a representative body distinct from the body entrusted with the task of government (Hayek, 1979; Lee, 1983).

Conclusions

Rent-seeking waste is a matter of opinion depending on one's view of the appropriate role of the state, which must ultimately be determined on the basis of ethics rather than economic theory. If emphasis is placed on the freedom of individual choice, there are genuine opportunities for improvements in the political system and strong reasons to reduce the current level of redistributive activity. Rent-seeking activities by organized groups are important in the growth of the bargaining society or transfer society with its stifling effect on the competitive market process and concomitant shrinking of liberty of choice. Moreover, while there can be little doubt that there has been a pronounced increase in the number of groups organized for redistributive purposes, group activities generally pose little reason for concern in the absence of government assistance. Thus, limiting the role of the state is essential in minimizing the effects of rent-seeking activity.[30] There is mounting evidence that a revision of the constitutional contract will be necessary to

reduce the role of the state. Regardless of the approach taken in reducing the scope of government, however, a necessary first step is increased awareness of the economic and ethical implications of redistributive activities by individuals and groups.

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[1] While rent seeking is usually used to describe the effects of groups attempting to obtain wealth transfers through the aegis of the state, the term is also applied (as will be shown here) to the effects of "monopoly" not rooted in government power. In contrast to the orthodox analysis which implies that rent seeking generates social waste only in settings where *artificial* scarcities are created, Buchanan (1983) suggests in a recent paper that rent seeking emerges in any uncompensated transfer of value—notably with respect to gifts or bequests among persons.

[2] This article mainly focuses on problems in *identifying* rent-seeking activities. Relatively little attention is devoted to the reasons why measurement of waste, even in principle, is not possible.

[3] In the conventional approach, following a specific market event or act of government to increase or decrease competition, it is assumed that gains and losses to producers and consumers can be empirically compared. It is argued that this approach is not valid in a later section of this article.

[4] Says Worcester (1982, p. 87):

> A longer run view of what may seem to be excessive

> profits or losses is appropriate because every successful penetration . . . because of artful foresight, scientific estimation, or plan luck—gives the entrepreneur an edge . . . that can be classified as a monopoly return. There would be no such return if buyers did not find the new superior to the old, and thus, in the large sense, the consequence of a more efficient use of resources.

[5] Economic rent is defined in conventional neoclassical theory as the return in excess of opportunity cost. Since opportunity cost is subjective and profits are created through entrepreneurial activity, there is no way for an outside observer to objectively identify economic rent which, in practice, is taken to mean "excessive profits" or "unearned returns." As in the case of the distinction between profits and profiteering, the identification of economic rent depends on judgments of value (von Mises, 1974, p. 129).

[6] According to Cowling and Mueller (1980, p. 134):

> Gordon Tullock and Richard Posner have argued that previous studies understate the social costs of monopoly by failing to recognize the costs involved in attempts to gain and retain monopoly power. These costs could take the form of investment in excess production capacity, excessive accumulation of advertising goodwill stocks, and excessive product differentiation through research and development.

"[A]nd anyone can try to form a cartel with his competitors or, if he is a member of a cartelized industry, to engross a greater share of the monopoly profits of the industry." (Posner, 1975, p. 809).

[7] The use of the concept of rent seeking for the remainder of this article is restricted to activities of this type where groups attempt to obtain wealth transfers through the aegis of the state.

[8] Buchanan and di Pierro (1980, p. 699) write:

> There exists basic uncertainty . . . about the set of possibilities that might be realized upon choice or consequent to choice. In a very real sense, the entrepreneur creates his own opportunity set and the act of choice enters a new world that unfolds

> with choice itself. When this point is recognized, formal theories of probability have little or no contribution to make to our understanding of entrepreneurial choice.

[9] "In short, when the entrepreneurial aspect of efficient allocation is taken into account, the system will *always* be in temporary disequilibrium when equilibrium is defined by static or stationary criteria" (Worcester, 1982, p. 87).

[10] In efficiency measurements, welfare economists have generally finessed this information problem by implicitly assuming omniscience on the part of the observing economist (Buchanan, 1959).

[11] Bhagwati (1982) proposes "directly unproductive, profit-seeking" activities as a general concept that includes conventional rent seeking as a special case.

[12]

> How, then, do we tell a government action that we shall call redistributive . . . ? Essentially, we must look at the motives of the act. . . . When we observe a government that does not seem to be solely aimed at improving the efficiency of the economy, defending the country, suppressing murder, etc., we call it redistributive (Tullock, 1983, p. 13).

[13] A dramatic example of the positivist approach appears in Tullock (1983, p. 7):

> Let us, for example, take a fairly clear-cut case in which income generates rather little utility: people who are seriously and permanently crippled, such as multiple sclerosis victims. It is fairly obvious that the marginal utility derived from each dollar put in the support of such people is low. If we were attempting to maximize total utility, we would surely cut back on our expenditures to them and increase our expenditures to the beach boys of Malibu.

[14] Stigler (1982b) holds that although economic analyses of government intervention including minimum wages, rent controls, and so forth are "tolerably accurate" as to their effects, economists' policy advice on these issues is disregarded because

economists are uninformed concerning political desires of the community: “The true account, then, is that the economists refused to listen to the society, not that the society refused to listen to economists. What the economists had to say that was relevant was heard and acted upon” (pp. 15–16). In this view, economics teaches the worthlessness of public policy advice. Studies by public choice economists, by the neoclassicists of the Chicago school, and by the Austrians, however, have helped to make the case for limited government and free markets (McKenzie, 1983, p. 53).

[15] Says Buchanan (1959, pp. 137–38):

> The individual preference patterns which he incorporates into his models must be conceived as presumed or predicted, and the changes which are based on these must always be considered tentative hypotheses to be subject to testing in the polling places. The economist can never say that one social situation is more “efficient” than another.

[16] Self-interest is likely to play a role in people’s attitude toward particular transfers. In the words of Stigler (1982b, p. 15), “One is entitled to suspect that a person’s disapproval is related to his circumstances: economists believe that federal support of their research is more desirable than federal support of industrial research.”

[17] For example, occupational licensing of real estate salespeople, medical doctors, and the like means that the licensed businesses are not as competitive as they otherwise would be (Tullock, 1980a, p. 17). Yet many (most?) people appear willing to pay a higher price in exchange for a perceived increase in information and decrease in uncertainty associated with such restrictions on competition.

[18] Browning (1974) points out that rent-seeking behavior may be important in providing information to legislators, which further complicates the benchmark problem in identifying rent-seeking waste.

[19] Gardner (1981) discusses the theory that agriculture has special characteristics that unregulated markets cannot properly handle.

[20] Ruttan (1980, p. 531) argues, for example, that there is currently underinvestment in publicly supported agricultural research.

> The observed annual rates of return typically fall in the 30–60 percent range. . . . It is hard to imagine very many investments in either private or public sector activity that would produce more favorable rates of return. There is little doubt that a level of expenditure that would push rates of returns to below 20 percent would be in the public interest.

If Ruttan's conclusion were correct, the lobbying necessary to bring about this result could not legitimately be considered rent-seeking waste.

[21] Worcester (1982) discusses the "forbidding task" of developing an economic model that can properly be used as a basis for policy making. He concludes: "Economic analysis suitable for policy must provide a negative answer to the first and a positive answer to the second of these questions:

a. Is any unavoidable task ignored or excluded by assumption?

b. Has an equally skeptical investigation been made of the viable alternatives?" (p. 87).

[22] Rothbard (1982) explains why utilitarian approaches cannot be used to make the case for or against particular restrictions on competition.

[23] There is a subtle difference between the existence and the measurement of in efficiency (or errors) by decision makers. The outside observer cannot detect error or isolate inefficiency on the part of decision makers since utilities and costs are subjective. The individual may err, however, in the sense of acting in a way so that he or she is placed on a position viewed "as less desirable than an equally available state" (Kirzner, 1979, p. 120). Moreover, as Mitchell (1983) suggests, individuals and groups may knowingly be induced by short-run considerations to engage in activities which, if widely adopted, can lead to general ruin.

[24] "[T]ransfer activity, originally quite limited, has come to play a much more significant role in the lives of all Americans" (Anderson and Hill, 1980, p. 91). Johansen (1979) refers to the proliferation of groups being organized with the aim of negotiating with the state to improve their economic condition as "the bargaining society."

[25] Says Olson (1982, p. 69):

> Lobbying increases the complexity of regulation and the scope of government by creating special

> provisions and exceptions. A lobby that wins a tax deduction for income of a certain source or type makes the tax code longer and more complicated; a lobby that gets a tariff increase for the producers of a particular commodity makes trade regulation more complex than it would be with no tariff at all.

[26] Olson is ambivalent about the effects of conventionally defined monopoly power. Monopoly gains are said to arise because output is reduced to obtain a higher price (p. 45). He argues, however, that though supranormal profits are common, their source is innovation.

> But what gives rise to these temporary profits? Most notably, innovation of one kind or another. . . . And the greater the extent of the profits due to difficulties of entry and imitation, the greater the reward to the innovations that mainly explain economic growth and progress (Olson, 1982, p. 61).

[27] Although Olson (1982) stresses the harmful effects of special interest groups, he fails to recognize the importance of the state in creating and maintaining such groups.

Indeed, he holds that "there often will *not* be competitive markets even if the government does not intervene. . . . There will be cartelization of many markets even if the government does not help" (Olson, 1982, pp. 177–78).

[28] I am indebted to Robert Batemarco for this insight.

[29] Yandle (1982) traces the roots of government to rent-seeking behavior. Government emerges as a producer and monitor of property rights because of common access problems. A useful way of analyzing the conditions giving rise to decay in the legislative process is to view public officials as rent seekers in the legislative commons.

> With representative government the legislative arena is the commons upon which property rights are formed. The legislators are the sheperds and the laws passed by them are the grazing. The constitution is the monitoring device. If the basic contract—the constitution—fails to monitor the commons, overgrazing occurs. (Yandle, 1982, p. 324).

[30] “While collective choice stands in the sharpest contrast to the market, marginal improvements are possible. But of all improvements the most effective is a steady diminution of the scope of government” (Mitchell, 1983, pp. 367–68).

Some Austrian Perspectives on Keynesian Fiscal Policy and the Recovery in the Thirties

Gene Smiley

The standard explanation for the snail-like pace of the recovery from the Great Depression was first proposed by E. Cary Brown in 1956, and was enhanced and extended by Larry Peppers in 1973.[1] Though there are a few skeptics, the story of the federal government's failure to use expansionary fiscal policy is repeated in most economic history, principles of economics, and intermediate macroeconomics textbooks.[2] Here, I suggest that this tale is wrong since it is built upon assumptions inconsistent with observed behavior during the recovery from the Great Depression. Using some insights from Austrian analysis, I conclude that a more expansionary fiscal policy would have had little effect in promoting a more rapid recovery from the Depression.

Brown and Peppers argued that the reason for the retarded recovery in the 1933–39 period was that the federal government failed to use expansionary fiscal policy.[3] This is not to say that federal government expenditures did not increase.[4] Rather, Brown and Peppers argued that the problem was that both the Hoover and Roosevelt administrations also sharply increased tax rates in attempting to "balance" the federal government's budget. The contractionary effects of increasing taxes largely offset the expansionary effects of increasing spending. With the exception of 1931 and 1936, when the federal government made "bonus" payments to veterans, Peppers's analysis indicated that the federal budget would have shown a substantial surplus if full employment had prevailed.[5] Both Brown and Peppers argued that the appropriate policy would have been to increase federal spending without increasing taxes. Such a policy, they contended, would have increased aggregate demand and, through the Keynesian spending multiplier, more quickly restored full employment.

Apparently Brown and Peppers assumed that the money borrowed to finance such a federal government deficit would not have crowded out other spending. In Keynesian analysis, this requires that there be a highly interest-elastic demand for money balances—something approaching a Keynesian liquidity trap. Alternatively, the Federal Reserve System could have purchased the additional federal government debt and created new money by an equal amount. *If* the reason for the contraction was an insufficient stock of money, then the new money could have employed the idle resources without causing inflation or reducing real spending in any other sector in the economy.

Though the stock of money did increase from 1933 through 1939, this was due to the flow of gold into the United States, not to the actions of the Federal Reserve System. Since the FRS did not aid the federal government's financing of its deficit, and, in fact, consistently attempted to reduce the growth of the money stock, I do not consider the monetization of the deficit a viable alternative. One aspect of the question of the potential power of fiscal policy then concerns crowding out as a result of the deficit spending. My purpose in the first part of this article is to establish plausible explanations of what might have happened to the funds collected through increased taxes and increased borrowing if the government had not gained the additional funds and increased spending. This provides one part of the answer to the question of what would have been the effect of greater deficit spending by the federal government by addressing the question from the perspective of the Keynesian analysis.

In the second part of the article, I consider the question of the potential effect of greater deficit spending by the federal government during the 1930s recovery from the perspective of Austrian analysis. The procedure here is to consider the effect of increased federal spending on the structure of relative prices, an effect Keynesians and monetarists generally tend to ignore.

In 1942, the U.S. National Resources Planning Board estimated that for the 1933–39 period, 42.6 percent of the federal public aid expenditures were financed by tax revenues, and 57.4 percent financed by additional debt issues.[6] Whether financed by tax increases or additional bond sales, if the positive spending multiplier occurs, it is because some of the increased taxes or purchases of additional debt use money that otherwise would have been completely idle, or would not have existed.[7]

For federal spending financed by equivalent tax increases,

the size of the Keynesian fiscal spending multiplier depends on the type of savings reduced by the tax increase.[8] Prior to World War II, Milton Friedman and Anna Schwartz's data show that the deposit/currency ratio fell to a low of just under 5 in 1933, and rose to 7.25 by early 1937.[9] Households generally held the bulk of their savings as time deposits in financial intermediaries, while demand deposit and cash holdings were largely related to household transactions.[10] The argument that banks relent most of the deposited funds will be developed here. Therefore, if the tax increase induced individuals to reduce savings by decreasing bank deposits, this would have brought about a nearly proportionate reduction in bank lending and private sector spending.[11] Even if the tax increase proportionately reduced household deposit and currency "savings," the fact that households only held $1 in currency for every $5 to $7.25 in deposits means that the fiscal multiplier would have been tiny.[12] Considering that household currency holdings were largely related to transactions demands and the progressive personal income tax system, it seems most likely that during the 1933–39 period, the federal government spending financed by equivalent tax increases would have had a multiplier close to zero—certainly not close to one.

The majority of the federal government's public aid expenditures, 57.4 percent, were financed by selling debt. Table 1 presents the ownership of the federal debt between 1933 and 1939 and the six-month (or yearly) changes in the amount held. The data show that there was virtually no monetization of the debt, especially from June 1934 on.[13] From June 1933 through December 1939, 74.7 percent of the total debt issued was purchased by member and nonmember banks, savings banks, insurance companies, and "other investors"—a category that includes other financial firms, all nonfinancial firms, all households, and any other investors. Nearly 89 percent of all the federal debt sold in the private sector was sold to banks and insurance companies. For the federal government expenditures financed by debt sold to the private sector to have a large multiplier effect, much of the debt must have been purchased by banks which largely used reserves that otherwise would not have been used for any purpose other than idle excess bank reserves, by insurance companies which mainly used money that otherwise would have been held only as idle currency balances outside of the banking system, and by "other investors" who primarily used money that otherwise would have been held as

idle currency—not bank deposit—balances.

I will first examine the behavior of nonfinancial firms and individuals ("Other investors").[14] As noted, the deposit/currency ratio rose from 5 to 7.25 between 1933 and 1937, where it roughly remained for the rest of the decade. Recent empirical research suggests that there was a highly interest-inelastic demand for money balances during this period.[15] Money market and securities market interest rates (such as those on treasury bills, U.S. government and corporate bonds, major city bank commercial loans, prime commercial paper, and stock exchange time loans) were very low and relatively stable or falling slightly. Though bank commercial loans rates, outside of the largest cities, were higher and tended to rise from 1934 to 1936, particularly in the western states, the newly controlled deposit rates were low and could not rise.[16] With the roughly constant interest rates, the interest-inelastic demand for money balances, and the fact that households and firms held from $5 up to $7.25 of deposit balances for every dollar of currency, it seems most unlikely that any significant portion of the debt sold to those in the "other investors" category would have been purchased using idle currency balances.

Table 1 Ownership of U.S. Government Debt, 1933–39 (*end-of-month figures in $ millions*)

Date	*Total Amount Outstanding*	*Federal Agencies and Trust Funds*	*Federal Reserve Banks*	*FRS Member Banks*	*Other Commercial Banks*	*Mutual Savings Banks*	*Insurance Companies*	*Other Investors*
6/1933	22,158	690	1,988	6,887	590	720	1,000	10,300
6/1934	27,161	1,428	2,432	9,413	900	970	1,500	10,500

6/1935	31,768	1,991	2,433	11,430	1,290	1,540	2,600	10,500
6/1936	37,707	2,320	2,430	13,672	1,600	2,050	3,900	11,700
12/1936	38,362	2,432	2,430	13,545	1,790	2,250	4,500	11,400
6/1937	40,465	3,584	2,526	12,689	1,870	2,390	5,000	12,400
12/1937	41,353	4,255	2,564	12,372	1,780	2,450	5,300	12,600
6/1938	41,428	4,777	2,564	12,343	1,700	2,690	5,500	11,900
12/1938	43,891	5,333	2,564	13,223	1,850	2,880	5,700	12,300
6/1939	45,336	5,886	2,551	13,777	1,920	3,040	5,900	12,300
12/1939	47,067	6,531	2,484	14,328	1,970	3,100	6,300	12,400
Changes in the Amount of U.S. Government Securities Owned								
6/33 to 6/34	5,003	738	444	2,526	310	250	500	200
6/34 to 6/35	4,607	563	1	2,017	390	570	1,100	0
6/35 to 6/36	5,939	329	-3	2,242	310	510	1,300	1,200
6/36 to 12/36	655	112	0	-127	190	200	600	-300
12/36 to 6/37	2,103	1,152	96	-856	80	140	500	1,000
6/37 to 12/37	888	671	38	-317	-90	60	300	200
12/37 to 6/38	75	522	0	-29	-80	240	200	-700
6/38 to 12/38	2,463	556	0	880	150	190	200	400
12/38 to 6/39	1,445	553	13	554	70	160	200	0

6/39 to 12/39	1,731	645	-7	551	50	60	400	100

Source: Board of Governors of the Federal Reserve System, *Banking and Monetary Statistics* (Washington, D.C.: National Capital Press, 1943), table 149, p. 512.
Note: Components may not add to the total due to the rounding of the estimates. The estimated figures for "other commercial banks" and "mutual savings banks" were rounded to the nearest $10 million and the estimated figures for "insurance companies" and "other investors" were rounded to the nearest $100 million.

The evidence suggests similar behavior for insurance companies. In the interwar years, the ten largest life insurance companies operated with very low ratios of cash balances to total assets. The ratio averaged about 0.7 to 0.8 percent in the twenties, about 2.0 percent in the thirties after the Depression, and from 1.0 to 1.5 percent from 1947 to 1955.[17] The cash balances included both bank deposits and currency. Though the data on this composition are not available, surely the insurance companies would have held the bulk of their "cash" balances as bank deposits rather than currency on hand since bank deposits were the most efficient means of making payments to claimants, policyholders, agents, and employees. Table 1 shows that insurance companies increased their holdings of federal government debt by over $1 billion a year from June 1934 through June 1937.

If the insurance companies had not purchased the additional government debt, would they have held these funds in idle cash balances rather than purchasing any private or nonfederal government financial securities; if held as cash balances, would the money have been held mainly as currency holdings rather than as bank deposits? The most plausible answer to both of these questions would seem to be no. First, the life insurance companies were contractually obligated to make future payments. Surely, if they had not invested in federal government debt, they would have invested in private or local and state government financial securities. Second, even if they would have held all of the funds as "cash" balances (rather than purchasing the new issues of federal debt), it seems most reasonable to assume that they would have held most of the "cash" in bank deposits rather than currency.

Williamson and Smalley's data on Northwestern Mutual Life make possible some instructive calculations for that large life insurance company. Northwestern Mutual's "cash" holdings were $10.3 million in 1933, $10 million in 1935, and $14.0 million in

1939, or 1.03, 0.93, and 1.08 percent respectively of the admitted assets. Northwestern's holdings of U.S. government securities can roughly be estimated at $25 million dollars in 1935, $150 million in 1935, and $125 million in 1939. If the U.S. government securities had not been issued and Northwestern had then held additional cash balances of $125 and 100 million in 1935 and 1939, their cash as a percentage of admitted assets would have been 12.59 percent in 1935, and 8.82 percent in 1939. This behavior hardly seems plausible.

In his history of the Metropolitan Life Insurance Company, Louis Dublin indicated that a reduced supply of other investment opportunities, as well as the much lower risk associated with federal government debt, led insurance companies to purchase more federal bonds in the post-1933 period.[18] In their history of Northwestern Mutual Life, Williamson and Smalley provided more information on this company's investments during the thirties. The company built up its holdings of federal government bonds in 1934 and 1935, "when the supply of *higher yielding* securities was limited" (emphasis added).[19] However, the absolute and relative amount of U.S. government bonds held by Northwestern Mutual Life declined from 1935 through 1941. Williamson and Smalley report that the company's investment management felt that "the most promising areas for an expansion of the Company's security holdings were state, county, and municipal bonds in the United States and the obligations in public utilities and industrial concerns."[20] They report that rather than wait for applications to come to them, the company actively sought out these types of investments. The state, county, and municipal bonds were, of course, tax exempt. According to Williamson and Smalley, Northwestern considered public utility and industrial securities the most attractive investments "largely because of their favorable showing during the Depression and their future prospects."[21]

This analysis does not suggest that the insurance companies would have held all or even much of the assets used to purchase the federal debt as idle currency balances if the additional federal debt had not been issued.

The behavior of the banks was critical since they were the dominant purchasers of the federal debt and controlled the deposited funds of insurance companies, other nonbank financial firms, and other investors. From June 1933 through December 1939, 60.2 percent of the additional U.S. debt purchased by the private sector was purchased by member and nonmember

commercial banks and savings banks. For federal spending to have a large multiplier effect, as the Keynesian scenario suggests, the banks must have purchased the debt largely using funds that otherwise would have been held only as idle excess bank reserves. Friedman and Schwartz have calculated that the ratio of bank reserves to bank deposits for all banks rose continuously from 1933 through 1939.[22] Though at the time, the Federal Reserve Board asserted that the accumulating excess reserves resulted from inadequate loan demand at any reasonable interest rate, Friedman and Schwartz have argued that bankers were consciously building up the excess reserves as additional liquidity; in effect, a "Maginot line" of excess reserves against further banking crises. If the excess reserves were desired by bankers, then the purchase of federal government debt would have been made in lieu of loans and other securities purchases, rather than have been made using funds that otherwise would have been held only as idle excess reserves.

It is difficult to determine the motives of the managers of the banks. However, there are some data and clues upon which to base an analysis. In the first two years after the trough of the Depression, banks were heavy purchasers of the bonds being sold by the federal government to finance the New Deal programs. FRS member banks increased their holdings of U.S. government securities by 50.7 percent from June 1933 through June 1935, nonmember banks increased their holdings of these securities by 78.2 percent in this period, and mutual savings banks increased these holdings by 75.7 percent. Member and nonmember banks' holdings of other securities rose by only 7.4 percent and 2.9 percent respectively in this two-year period, while mutual savings banks' holdings of other securities fell. The loans of all of these banks fell during these two years. These figures are shown in table 2.

Rates on government bonds, industrial bonds, commercial paper, and New York City bank loans were very low in absolute terms, and falling through early 1935. This has led to suggestions that the demand for loans and for investment funds in the immediate post-Depression years was so low that if the federal government had not sold securities to finance its spending, banks, individuals, and firms would have had no choice but to hold larger idle money or reserve balances. However, there is evidence against this assertion. When bank loan rates for banks outside of the major financial centers are examined, one finds that loan rates were much higher and actually rose sharply in a

number of western states in the two and a half years after the trough of the Depression.[23] The rising interest rates would not suggest such inadequate loan demand.

Table 2 Loans and Securities Held by FRS Member, Nonmember Commercial, and Mutual Savings Banks (*end-of-month figures in $ millions*)

	Loans			*U.S. Securities*			*Other Securities*		
Date	*FRS Member Banks*	*Nonmember Commercial Banks*	*Mutual Savings Banks*	*FRS Member Banks*	*Nonmember Commercial Banks*	*Mutual Savings Banks*	*FRS Member Banks*	*Nonmember Commercial Banks*	*Mutual Savings Banks*
6/33	12,858	3,491	5,894	6,887	589	723	5,041	1,491	3,331
12/33	12,833	3,491	5,808	7,254	na	na	5,132	na	na
6/34	12,513	3,177	5,606	9,413	895	895	5,239	1,495	3,233
12/34	12,028	2,960	5,451	10,895	na	na	5,227	na	na
6/35	11,928	2,981	5,304	11,430	1,287	1,542	5,427	1,535	2,913
12/35	12,175	2,944	5,183	12,269	na	na	5,542	na	na
6/36	12,541	3,017	5,077	13,672	1,598	2,052	6,045	1,666	2,713
12/36	13,360	2,998	5,001	13,545	1,789	2,253	6,095	1,685	2,719
6/37	14,284	3,147	4,978	12,689	1,874	2,391	5,765	1,712	2,724
12/37	13,958	3,142	4,965	12,371	1,784	2,454	5,423	1,655	2,675
6/38	12,937	3,115	4.929	12,343	1,699	2,685	5,440	1,574	2,489
12/38	13,207	3,156	4,897	13,223	1,848	2,883	5,640	1,594	2,382
6/39	13,141	3,282	4,897	13,777	1,923	3,043	5,686	1,559	2,309

12/39	13,962	3,281	4,926	14,329	1,971	3,102	5,651	1,474	2,190
Changes for the Six Months Ending									
12/33	-20	-78	-86	367	153[a]	124[a]	91	2[a]	-49[a]
6/34	-320	-326	-202	2,159	153[a]	124[a]	107	2[a]	-49[a]
12/34	-485	-217	-155	1,482	196[a]	285[a]	-12	20[a]	-160[a]
6/35	-100	21	-147	535	196[a]	285[a]	200	20[a]	-160[a]
12/35	247	-37	-121	839	155[a]	255[a]	115	65[a]	-100[a]
6/36	366	73	-106	1,403	156[a]	255[a]	503	65[a]	-100[a]
12/36	819	-19	-76	-127	191	201	50	21	6
6/37	924	149	-23	-856	85	138	-330	27	5
12/37	-326	-5	-13	-318	-90	63	-342	-57	-4
6/38	-1,021	-27	-36	-28	-85	231	17	-81	-186
12/38	270	41	-32	880	149	198	200	20	-107
6/39	-66	126	0	554	75	160	46	-35	-73
12/39	821	-1	29	552	48	59	-35	-85	-119

Source: Board of Governors of the Federal Reserve System, *Banking and Monetary Statistics* (Washington, D.C.: National Capital Press, 1943), tables 4–7, pp. 20–23.
na: not available.
[a]Over these dates only the twelve-month change could be calculated. Thus, these figures for the six-month changes are one-half of the twelve-month changes.

In addition, there is also evidence that banks rationed credit by simply refusing to make some loans. Ben Bernanke examined this evidence as part of his study of how the financial crises of the Depression raised the costs of credit intermediation and reduced the efficiency of the financial sector.[24] Lewis Kimmel's survey of credit availability during 1933–38 indicated that a large share of manufacturing firms were refused bank loans during this period; in particular, more than 30 percent of the smaller manufacturing firms reported being refused credit.[25] Relatively few of the largest manufacturing firms reported difficulty in securing bank loans. A survey of firms in the seventh Federal Reserve District in 1934–35 found "a genuine unsatisfied demand for credit by solvent borrowers," and a U.S. Dept. of Commerce survey of small firms with high credit ratings found that nearly half of them had difficulty borrowing for working capital and most were not able to obtain investment funds.[26]

This suggests that in the first two to two and a half years after the end of the Depression, banks were investing in the new

issues of government securities because of the extremely low risks involved in holding these “safe” financial assets compared to alternatives, not because there were simply no other investment or loan opportunities. Under these circumstances, if the additional federal government bonds had not been issued, then banks would have turned, perhaps reluctantly, to other investments and loan demands. Private and nonfederal government spending was forced to decline because of the federal government’s increased spending.

As economic activity began to recover, the authorities of the Federal Reserve System became increasingly concerned about the buildup of banks’ excess reserves. They feared that with the revival of the demand for loanable funds and an increased supply of financial securities, banks would begin reducing their excess reserves, the stock of money would begin to grow faster, and there would be inflation.[27] Convinced that the excess reserves were due only to an inadequate loan demand and armed with studies showing that the excess reserves were broadly distributed across regions and sizes of banks, the Federal Reserve System used its new tool of variable reserve requirements to double demand (and time) deposit reserve requirements over a nine-month period.

The first increase, from 13 to 19.5 percent for central reserve city bank demand deposits, was announced in July 1936, and took effect on August 16, 1936. On January 30, 1937, the FRS announced two more increases to take place on March 1, 1937 and May 1, 1937. The increases raised the central reserve city bank demand deposit requirements from 19.5 to 22.75 and then to 26 percent. With these increases the Federal Reserve System had raised reserve requirements as high as the law allowed.[28]

How would one expect the banks to respond to the increase in required reserve ratios? If the rising excess reserves were due only to a lack of loan demand at any reasonable interest rate, then one would not expect the banks to attempt to restore some or all of the eliminated excess reserves. If the excess reserves were largely desired by the banks as protection against further banking crises and the riskiness of the depressed business conditions, then one would expect to see the banks taking actions to restore some or all of the excess reserves eliminated by the rise in reserve requirements.[29] This would take the form of some combination of reducing lending and/or selling some securities from the banks’ investment portfolios as the excess

reserves were rebuilt.

The Federal Reserve System's increased reserve requirements applied to member banks only. If the excess reserves were desired, one would expect to see member banks taking actions to restore the excess reserves, but not the nonmember banks. Table 2 presents the holdings of loans, U.S. government debt, and other securities, and the changes in these holdings. In the first several years after the trough of the contraction, all three classes of banks reduced their lending. Member banks increased their lending somewhat beginning in the last half of 1935, and sharply increased their lending in the last half of 1936 and the first half of 1937. Nonmember banks largely ceased contracting their loan portfolio at the end of 1934, and sharply expanded lending in the first half of 1937. Mutual savings banks continued to contract their lending through 1938, but the rate of contraction diminished sharply at the beginning of 1937.

All three classes of banks purchased large quantities of U.S. securities through June 1936. Member and nonmember banks also purchased other securities through June 1936, while mutual savings banks sold other securities. Member banks sold U.S. securities in the last half of 1936, and nearly ceased purchasing other securities. In the first half of 1937, member banks sold large amounts of U.S. and other securities. Nonmember banks and mutual savings banks continued to purchase U.S. securities from June 1936 through June 1937; both purchased other securities in this same period. With the onset of the 1937–38 contraction (beginning about May or June 1937), all three classes of banks reduced lending and sold U.S. and other securities (except for the mutual savings banks which purchased U.S. securities).

The rapid expansion of loans by member banks in the last half of 1936, and by member and nonmember banks in the first half of 1937, as well as the sharp decrease in the rate of loan contraction by savings banks in this period are likely explained by the ending of the National Industrial Recovery Act (NIRA). Michael Weinstein has pointed out that industrial production was virtually stagnant from the last half of 1933 through the first half of 1935, and only began to increase after the NIRA was declared unconstitutional in May 1935.[30] This would indicate that during 1936 and the first half of 1937, prior to the cyclical peak, loan demand should have been increasing. It would seem, therefore, that some of the reduction in member banks' holdings of U.S. and other securities was undertaken to obtain funds to

make additional loans. Notice, however, that when nonmember banks sharply expanded their loan portfolios in the first half of 1937, they did not have to sell U.S. or other securities.

It would appear that the member banks' sales of U.S. government and other securities from July 1936 through June 1937 were related both to the increase reserve requirements and the rising loan demand. The dramatic reduction in excess reserves brought about sales from the holdings of financial securities. Loans did not decline due to the rising demand for loanable funds and it is likely that some of the sales of U.S. government and other securities were undertaken to shift the banks' portfolios of earning assets toward loans—assets yielding higher rates of return. Nonmember banks and savings banks apparently experienced smaller increases in loan demand. Since their reserve requirements were not increased, they did not have to sell securities to restore excess reserves or handle the increased loan demand.

Further evidence can be found in figures 1 through 6. Figures 1 and 2 show the monthly prices of high-grade corporate and municipal bonds and U.S. government bonds as well as the prime commercial paper rate and average rate on new treasury bills. If member banks began selling securities to restore their excess reserves and accommodate increasing loan demand, the increased supply of securities should have caused bond prices to fall and interest rates to rise. The figures show that this is what occurred and the timing is consistent with banks attempting to rebuild excess reserves (after the increase in required reserves) and satisfy an increasing loan demand. Figures 3 through 6 provide further evidence on the behavior of bankers during this period. They show that all of the classes of member banks vigorously rebuilt their excess reserves after the Federal Reserve System's attempt to eliminate the excess reserves.

I return to the original question. Was the buildup of excess reserves due to a lack of loan demand and inadequate supply of financial securities? Or was the buildup the result of the bankers' conscious desires for excess reserves as a "Maginot line" of defense against further crises? I believe that my evidence clearly suggests that bankers desired the excess reserves and considered the U.S. government securities as an investment.

I conclude that bankers were relending, via loans or the purchase of securities, what they considered to be a prudent portion of funds deposited with them. Withdrawal of deposits would have resulted in some combination of reduced lending

and/or sales of securities holdings. If the federal government had increased the sale of U.S. government securities as part of an expansionary fiscal policy, the purchases by banks, insurance companies, and other investors would have taken the place of purchases of private and nonfederal government securities and would have reduced lending. The Keynesian multiplier resulting from a more expansionary pure fiscal policy during the 1933–39 period would have been quite small, and might well have approached zero, but was certainly not something well in excess of one. A more expansionary fiscal policy would have done little to promote a more rapid recovery from the Great Depression. [31]

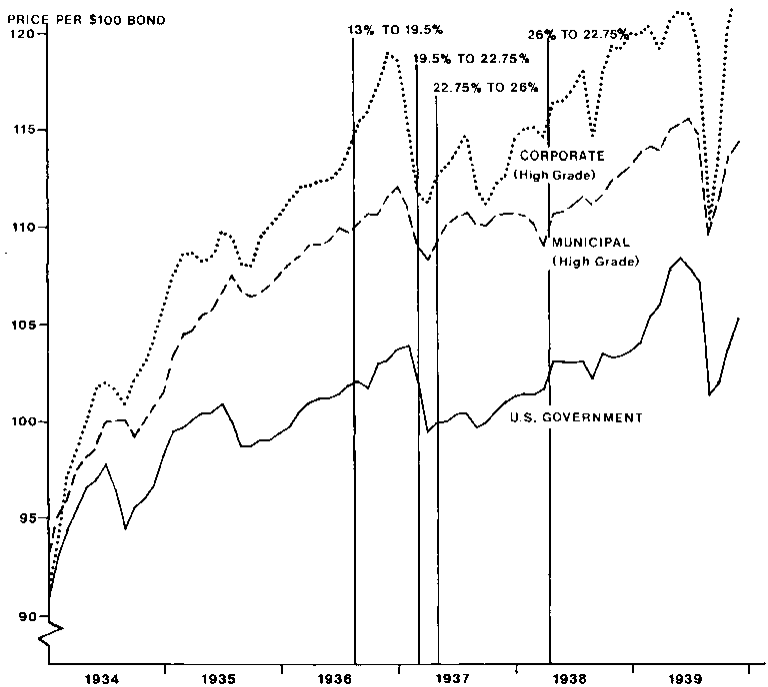

Figure 1. Monthly Prices of High-Grade Corporate, Municipal, and U.S. Government Bonds.

The second aspect of this question of the effectiveness of fiscal policy in the thirties deals not with crowding out, but with the effects on the structure of prices and resource allocations due to an increase in net aggregate spending resulting from expansionary fiscal policy.[32] Suppose that the increase in federal government spending had been funded by an increase in the stock of money courtesy of an accommodating Federal Reserve System policy. In such a situation, nominal spending by

the private and nonfederal government sectors would not have to decline. There is still reason to expect that this expansionary fiscal policy, now accommodated by an expansionary monetary policy, would not have more quickly brought about full employment.

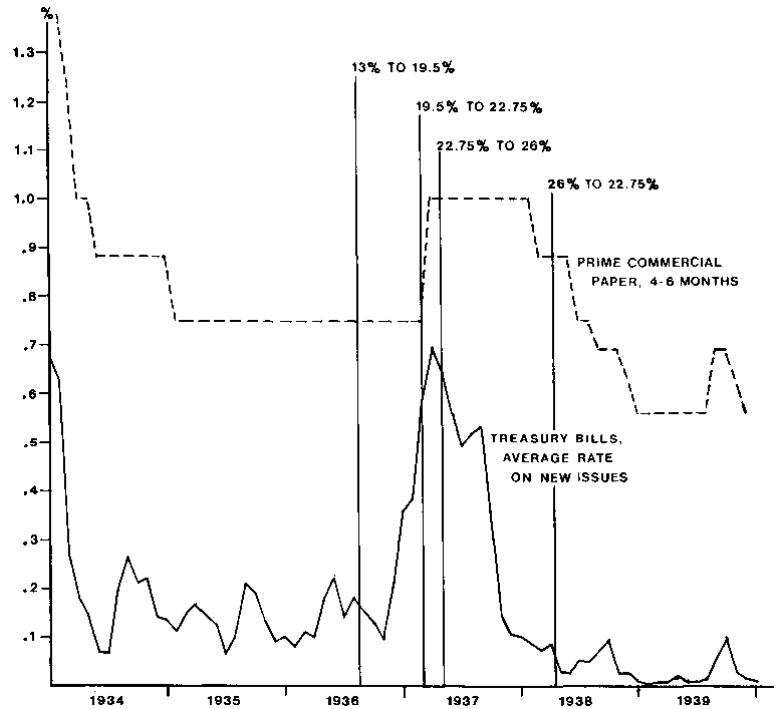

Figure 2. Prime Commercial Paper Rate and Average Rate on New Treasury Bills

Macroeconomic analysis generally does not distinguish between types of expenditures made by the federal government as it pursues expansionary fiscal policy. It does suggest that the multipliers may be somewhat larger or smaller for different types of expenditures since, with constant prices, fixed coefficients of production, and idle resources, some expenditures have larger backward linkages. All expenditures, however, are assumed to have positive multipliers and the amount of the increase in federal spending is generally considered much more important than the particular types of increased federal expenditures.

The evidence, however, does not indicate that these conditions existed. Not only was there a severe price deflation during the Depression and a price inflation from 1933 on, but there were pronounced changes in relative prices during the

thirties.[33] In addition, federal expenditures often have pronounced local effects which are much more important in magnitude and timing than any general economywide effects arising from the operation of the multiplier.[34]

To explain why an increase in federal spending in excess of spending declines in other sectors may well not have promoted recovery, it is useful to briefly review the role of relative prices in a market economy.[35] Austrians define an "equilibrium" as a situation where the *plans* of each and every transactor are mutually consistent. In his writings, Friedrich Hayek argued that we should speak of the tendency for mutually compatible plans to come about rather than speak of actually achieving equilibrium. With respect to this, Hayek suggested that the "division of knowledge" was *at least* as important as the division of labor, yet it had been completely neglected.

> The problem which we pretend to solve is how the spontaneous interaction of a number of people, each possessive only bits of knowledge, brings about a state of affairs in which prices correspond to costs, etc., and which could be brought about by deliberate direction only by somebody who possessed the combined knowledge of all those individuals.[36]

The mechanism that tends to bring the plans of individual transactors into closer correspondence with each other is the price system. Hayek proposed that people consider the price system as a mechanism for economically transmitting information among transactors. It is this mechanism that has to be the focus of any study of the coordination problem that all economic systems face. Gerald P. O'Driscoll describes this as follows:

> The price system registers both the effects of changing objective conditions and the reactions of transactors to these changes. Most important, the price system is a mechanism—however imprecise—for registering the ever-changing expectations of market participants. What is important here is the argument that the price system is the cheapest possible system of resource allocation.[37]

When there are cyclical fluctuations, such as the Great

Depression of 1929–33, Austrians focus on the coordination problem to explain and understand why there is a breakdown in a market system—a system that is supposed to work and previously had been working. In a cyclical contraction, discoordination of markets leads to declines in production and incomes as well as increases in idled resources (labor and capital). Relative prices are the primary economic data providing the information tending to coordinate the plans of individual transactors. To understand and explain the contraction, economists must search for the forces that alter relative prices in ways that provide incorrect information that tends to discoordinate market behavior. The recovery phase of the cycle consists of discovering and establishing the relative prices that tend to coordinate the plans of the individual transactors, and that complete the resource reallocations begun during the contraction phase of the cycle.

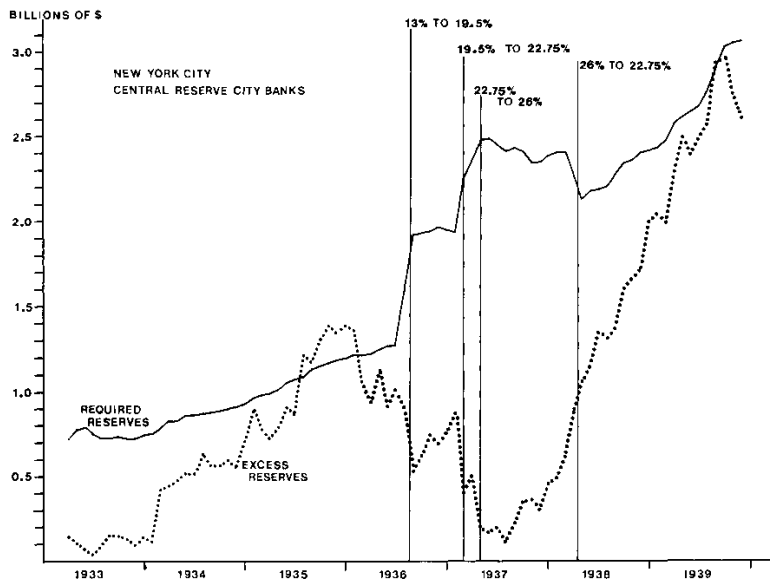

Figure 3. New York City, Central Reserve City Banks

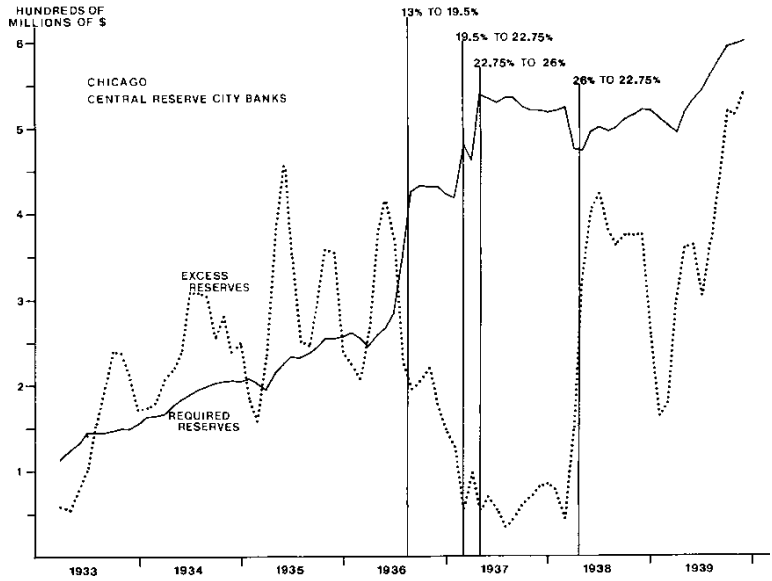

Figure 4. Chicago, Central Reserve City Banks

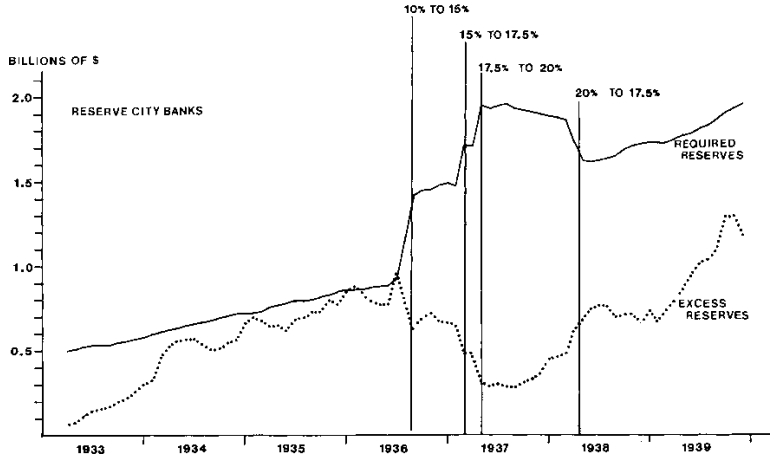

Figure 5. Reserve City Banks

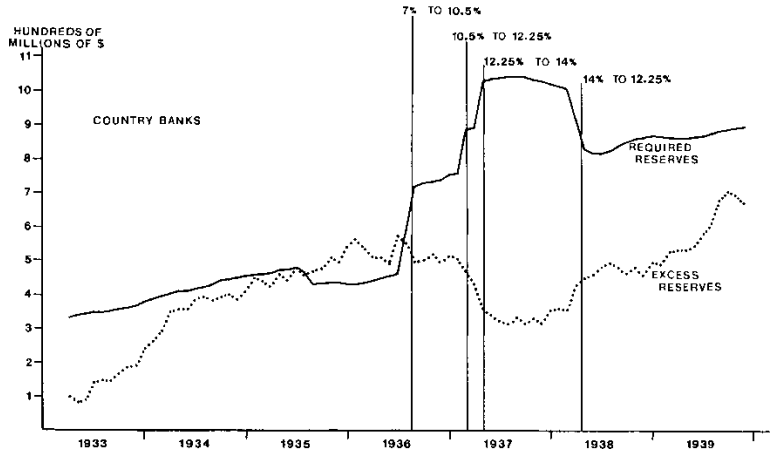

Figure 6. Country Banks

Several Austrian economists have examined the Great Depression. I can draw upon their analyses here.[38] Austrians point out that business cycles are "monetary disturbances [which] alter the array of relative prices by affecting market interest rates and the pattern of investment."[39] During the 1920s, the expansion of the stock of money through the banking system caused interest rates to be lower than they otherwise would have been. This inflation led to "malinvestments" as the lower discount rates induced entrepreneurs to shift productive resources toward uses further removed in time from final consumption. Since consumer preferences had not actually shifted toward future consumption, once the rate of growth of the money stock failed to increase or even slowed down, interest rates began rising and the recent investments in resources further removed from consumption proved not to be profitable.[40]

Lionel Robbins, Friedrich Hayek, and Murray Rothbard particularly blamed the Federal Reserve System's easy money policy in the last half of 1927 for leading into a more severe contraction than otherwise would have been necessary. Hayek said that until 1927, he would have expected a mild depression since in the preceding boom period, prices did not rise. However, the Federal Reserve System's expansion of the stock of money beginning in mid-1927 prolonged the boom for two more years and made the Depression more severe.[41]

When the inflationary expansion of the stock of money ceased at the end of 1928, the Depression was inevitable. Production indices began declining in the second quarter, stock market transactors recognized what was happening, and stock

prices ceased rising at the end of the third quarter, and the stock market "crashed" at the end of October 1929. The "overinvestments" discovered by later analysts were not the general overinvestments, but rather the malinvestments of the boom which were shown to be unprofitable once the money growth stopped.

Murray Rothbard has made a detailed examination of the Hoover administration's actions which lengthened the Depression and made it much more severe.[42] In November 1929, Hoover met with the leaders of the major industrial firms, the heads of the leading public utilities, representatives of the building and construction industry, and leading labor union officials. He asked that money wages not be cut (to maintain purchasing power) and, when necessary, the workweek be reduced as an alternative to layoffs. These leaders were receptive to his requests. Money wage rates in twenty-five major industries remained constant until late 1930. Many businesses resisted wage rate cuts until quite late in 1931. U.S. Steel, over the opposition of its president, finally cut wage rates in September 1931. Other firms cut wages secretly "for fear of the disapproval of the Hoover Administration."[43]

This policy led to much greater declines in output and employment since holding money wage rates constant raised real wage rates as prices fell. In fact, real wage rates in June 1933 were higher than in June 1929. The primary problem was not that the policy did not allow wage rates to fall since not *all* wage rates had to decline. Rather, it did not allow the wage rates for the various occupations and for the various firms to adjust as necessary to coordinate labor and other markets.

The Hawley-Smoot Tariff was approved and put into effect in June 1930. The protective tariff raised rates to the highest in U.S. history and spawned retaliatory tariffs in many other nations. This set off a spiraling contraction of both U.S. imports and exports, and altered the demands and supplies of many products and services requiring substantial relative price adjustment and resource movements.

The Federal Farm Board, established in 1929, attempted to support the prices of wheat and many other farm products. Production rose, surpluses piled up, and world prices continued to fall. Finally the FFB began dumping its surplus holdings on world markets, driving down prices and further undermining the farmers' positions.

In 1932, Congress approved huge increases in tax rates for

most federal taxes. The sharp decline in the stock of money (which began in 1931 and accelerated in late 1931, after Great Britain went off gold) continued. The Reconstruction Finance Corporation, created in 1932, made a number of loans to ailing banks. Publication of these loans led to runs on these banks as the public interpreted the loans as a sign of weakness. This, combined with the worry that Roosevelt would devalue gold (or take the United States off the gold standard), led to massive and continued bank runs by the end of 1932. With these runs there were, for the first time, specific demands for gold.

The deflationary decline in the money stock and the intermittent banking panics required further relative and absolute price adjustments. The reductions in bank lending required that interest rates be higher than they otherwise would have been. Prices of financial assets, productive resources, and goods and services had to fall in complex sequential patterns. The result was a highly complex alteration of relative prices while the declining money stock caused prices to fall.[44]

By the trough of the Depression, these shocks to the economy and the discoordination of various markets (particularly the labor markets) required large resource shifts and relative price changes to bring about higher employment and output levels. The process of recovery required these price changes and resource shifts.

This was and, of course, still is no simple task. With price searching firms, each firm has to discover each resource and product price through a trial and error process of trying different prices—a search process that can be long and difficult. In a dynamic environment, there is no simple and direct path from the prevailing disequilibrium price toward a new price consistent with all other prices.

This process is not part of the logic behind fiscal policy. The Keynesian approach simply asserts that what is necessary is to obtain a net increase in aggregate spending. Since the federal government's spending is not constrained by income, wealth, cash flows, or profitability, then it is up to the federal government to initiate the spending increase. The general logic of the Keynesian model does not suggest that it makes any important difference what type of federal spending is increased.

When one recognizes that the problem is one of price and resource adjustments to coordinate the plans of consumers and firms, fiscal policy's impact changes. It will not initiate a more rapid recovery unless the federal expenditures promote

coordinating price adjustments. This, however, was as unlikely then as now. The knowledge of how relative prices should be altered to promote the appropriate resource adjustments is not something that any individual or group(s) of individuals in the government or elsewhere has. As Hayek has pointed out, it is dispersed among all of the participants in the economy.

The fiscal policies of the federal government during the recovery included a number of tax increases as well as increased spending. Much of the increased spending was on make-work jobs to give employment to those who were unemployed rather than simply provide direct relief funds, though there also was much direct relief. I can briefly note some of the projects on which the federal government increased its spending.[45] The Public Works Administration undertook a number of large-scale projects such as highway, dam, and large public building construction as well as harbor improvements. The Civil Works Administration undertook "new and improved roads; bridges; repair of 40,000 schools; drainage of hundreds of thousands of acres of malarial lands; destruction of millions of rats and ticks; 150,000 sanitary privies; 200 swimming pools; 3,700 playgrounds; new hospitals; athletic stadiums; airports; and public buildings." The Civil Works Service Program employed "nonmanual labor" on many cultural projects such as paintings, sculptures, murals, writing music, and compiling local histories. The Emergency Education Program provided work for unemployed teachers in "adult education, vocational education and rehabilitation, and nursery schools for underprivileged children." The Women's Work Program provided "homemaking" type jobs for women in such activities as "sewing clothes, making bedding, canning food, nursing, teaching, research, and making statistical surveys."[46] The Civilian Conservation Corps sent young people off to camps, especially in forests and national parks, to do conservation work.

These types of projects were continued in the Works Progress Administration. The WPA constructed streets, sidewalks, water supply systems, sewage disposal systems, parks, airports, public buildings, hospitals, penal institutions, and military establishments. It sealed mines; undertook water conservation projects and engineering surveys; set up nursery schools; provided library services; sponsored adult education, museum, music, writing, art, and theater projects; provided social, economic, housing, and national health surveys; and organized a number of other welfare projects.[47]

The Reconstruction Finance Corporation provided loans and purchased stock to prop up financial institutions. Agricultural credit was provided to farmers and the Agricultural Adjustment Administration spent funds to raise farm prices and limit farm production.

There is no evidence that these types of expenditures promoted coordination of the plans and actions of individuals and firms. Many of these projects involved "public" or conservation projects which would not have been undertaken otherwise and which were not the type that private enterprise would have undertaken. Offsetting the coordination that these federal expenditures brought about were other aspects of these and other New Deal programs.

At the time, it was noted that the labor required for many of the public works projects (such as roads, buildings, and bridges) "could not provide appropriate employment for many types of the unemployed."[48] Wage and hours policies also were controversial. There was considerable discussion of whether the wages should be at the prevailing level or lower than prevailing wages to encourage workers to seek employment in private industry. The general policy was to pay the prevailing wage rates "except where these were below the stated minimum levels" and to establish maximum hours of work.[49] Minimum wage rates and maximum hours of employment per week were written into a number of New Deal laws. Such actions certainly did not facilitate the market adjustments necessary to coordinate markets, particularly the labor markets.

Other New Deal programs severely hindered market processes. The NIRA's attempt to cartelize much of U.S. business virtually stopped the recovery. In attempting to stop price competition and raise prices, it tried to control and set uniform prices, raise and equalize wage rates, eliminate nonprice as well as price competition, and stop investment if there were any excess capacity in other firms in the industry.[50] The promotion of unionization following the Wagner Act, the late 1930s antitrust crusade, and the creation of an unending agricultural crisis through price support programs all made the coordination of markets much more difficult. By reducing the ability of prices to adjust in response to changes in market conditions, it became more difficult to bring about greater consistency in the plans of the market participants. These New Deal programs—combined with federal expenditures concentrated on producing public and cultural works and the construction of public buildings and other

capital goods—lengthened the recovery from the Great Depression.

On the basis of this analysis, I conclude that the evidence indicates that a more expansionary fiscal policy would not have brought about a faster recovery from the Great Depression. First, the evidence suggests that an expansion of federal spending, financed by the sale of U.S. government securities rather than by tax increases and without the Federal Reserve System "monetizing" the additional federal debt, would have, for all practical purposes, have been offset by induced decreases in private and nonfederal government spending. Second, there is no reason to think that increases in net aggregate spending initiated by increased federal spending would have been likely to alter relative prices in ways that would have promoted coordinating adjustments toward higher employment and output. This would not have been an objective in the decision as to how the expenditures should have been undertaken. Even if the increased federal spending had been accommodated by an expansionary monetary policy, there is a low likelihood that the pattern of spending would have been such as to promote equilibrating price adjustments. Previous analyses of Keynesian fiscal policy in the recovery from the Great Depression have failed to adequately examine either crowding out effects or effects on the structure of relative prices, and, therefore, were misleading as to the potential effects of expansionary fiscal policy.

Appendix: The Early 1940s Recovery

One of the reasons that Keynesian analysis became widely accepted and still has many adherents is the belief that the early 1940s proved that Keynesian expansionary fiscal policy "worked" in promoting a more rapid return to full employment. From 1940 on, the federal government rapidly expanded its spending under the impetus of preparation for and then involvement in World War II. Most economic history and macroeconomics textbooks still single out this period as evidence of the power of Keynesian fiscal policy.

This acceptance is primarily a matter of faith rather than analysis. The early 1940s recovery cannot be seen as evidence that pure Keynesian fiscal policy works since, to give just one example, the Federal Reserve System authorities dramatically changed monetary policy. Under the pressures of the war in

Europe and, presumably, the likely involvement of the United States, the Federal Reserve System adopted an extremely expansionary monetary policy at the start of 1940. From January 1940 through January 1941, the stock of money grew 12.01 percent, then 22.88 percent from January 1940 through January 1942, and 44.78 percent from January 1940 through January 1943. Through 1940 and 1941, nearly 90 percent of the growth of the stock of money was due to the growth of the high-powered money, controlled by the Federal Reserve System.[51] The change in monetary policy, in effect, allowed a monetization of the debt the federal government issued as its spending rapidly increased. With such an expansionary (or inflationary) monetary policy, economists cannot conclude that it was fiscal policy rather than monetary policy that was the proximate cause of the more rapid recovery.

I have argued above that there is no reason to think that either fiscal policy with debt monetization or pure monetary policy would necessarily promote higher employment and output unless the additional expenditures tended to promote greater coordination of the plans of individual transactors through the appropriate relative price adjustments. There is, in fact, reason to believe that something such as this did occur. To understand why this is so, one needs to consider the unionization that occurred in the late 1930s.

Following the Wagner Labor Relations Act of 1935, there was an accelerated drive to unionize various firms—often all the firms in an industry. This was concentrated in the major industries containing the largest firms. For the most part, rather lengthy and bitter strikes were necessary to bring union recognition. Once the unions were recognized as the monopoly bargaining agents for the firm's workers, relatively large wage rate increases were negotiated as well as reductions in working hours. For example, when U.S. Steel and many smaller steel firms were organized in 1937, wage rates rose 19 percent (from 52.5 to 62.5 cents an hour) and overtime wage rates were installed. "Little Steel" temporarily staved off unionization by granting the same wage increase. It appears that similar types of wage and hour agreements were concluded in most cases of successful unionization in the late 1930s.

There has been little analysis of the firms' responses to these increased operating outlays. Yet, one would expect the magnitude of the wage rate changes to have noticeable effects. All else remaining the same, the increases in labor expenditures

would cause the firms to discover some combination of higher prices for the products being produced as well as reduced production (because of the higher product prices). Employment in the newly unionized firms would decline because of the reduced production and because firms would begin the process of marginally substituting capital for labor due to the higher relative price of labor.

If the demands for the products of the newly unionized firms were increasing, then their product prices might not have to rise and production might not decline. In time, there would still be some reduction in employment due to the marginal substitution of capital for labor. The problem is that we do not know what the conditions were in the late 1930s. No examination of the responses of the various firms seems to have been undertaken. There are no data on product prices, labor costs, employment, and production for both the firms that underwent unionization and those that did not.

My guess is that there were no relative increases in demand for the firms being unionized. If this were the case, then those firms had to choose some combination of increased product prices and relatively reduced production and employment. This would seem likely because of the 1937–38 contraction and the slow recovery from mid-1938 to 1940, as well as the fact that there is no reason to think that the demands for the products of the unionized firms would have been growing faster than the demands for the products of firms not being unionized.[52] This would have slowed down the recovery. Workers who were employed and would have been employed by these firms would thus have had to search for employment elsewhere. Most of the firms being unionized were large, heavy industry firms and their plants dominated the communities in which they were located. It is likely that workers would have had to extend their search toward other locations to discover employment opportunities. Since the products of some of the unionized firms were inputs into final products of other firms, there would be a complex alteration of the relative prices and production of many other products. Thus, the process of firms discovering whether the demand for their output had increased or decreased (and whether this was temporary or permanent), as well as workers discovering where employment opportunities were and what were the employment conditions, would have slowed the movements toward higher employment and production.

The federal government's expenditures on war goods in

1940, 1941, and 1942 tended to be concentrated on materials produced by heavy industry firms, firms where the late 1930s unionization had been concentrated. The result was that federal expenditures on war materials largely tended to increase demands in those industries where it is likely that costs had increased without commensurate demand increases in the late 1930s. This would have allowed them to profitably expand employment and production. The federal government's war expenditures at the beginning of the 1940s, financed largely by an increasing stock of money, are likely to have unintentionally promoted a number of equilibrating price and resource adjustments. The increased coordination would have more rapidly increased employment and output.[53]

The empirical research necessary to address the question of why there was such a rapid recovery in the early 1940s has not yet been undertaken. It should be noted that the question is not one of theory; rather it is one of empirical facts.[54] What were the demand conditions in the late 1930s and early 1940s for firms that were unionized and those that were not? How did the managements of the unionized firms respond to these changes? To what firms did the federal government's early 1940s war purchases go, and in what magnitudes? This constitutes an important empirical research agenda. What is presently clear is that the rapid recovery of the early 1940s is neither evidence nor proof that Keynesian fiscal policy "works" nor evidence that it would have restored full employment much more rapidly in the 1933–39 period.

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[1] See E. Cary Brown, "Fiscal Policy in the Thirties: A Reappraisal," *American Economic Review* 46 (1956), pp. 857–79; and Larry C. Peppers, "Full-Employment Surplus Analysis and Structural Change: the 1930's," *Explorations in Economic History* 10 (Winter 1973), pp. 197–210.

[2] For a skeptical view, see Michael R. Darby, "Three-and-a-Half Million U.S. Employees Have Been Mislaid: Or, an Explanation of Unemployment, 1934–1941," *Journal of Political Economy* 84 (February 1976), pp. 1–16. Recent restatements of the accepted view can be found in J.R. Kesselman and N.E. Savin, "Three-and-a-Half Million Workers Never Were Lost," *Economic Inquiry* 16 (April 1978), pp. 205–25; and, Bert Hickman and Robert Coen, *An Annual Growth Model of the U.S. Economy* (Amsterdam: North Holland, 1976). In their simulation model Hickman and Coen found, for the decade of the thirties, an unbelievably huge federal spending multiplier of 7.4 in the third year after the spending increase.

[3] Brown, "Fiscal Policy," pp. 863–66; Peppers, "Full-Employment Surplus Analysis," pp. 209–10.

[4] In 1929 dollars, federal outlays averaged $3.0 billion a year from 1922 through 1929, $4.8 billion a year from 1930 through 1933, and $9.2 billion a year from 1934 through 1939. Therefore, federal expenditures in the recovery years were triple the level during the 1920s. The data come from U.S. Dept. of Commerce, Bureau of the Census, *Historical Statistics of the United States: Colonial Times to 1970* (Washington, D.C.: U.S. GPO, 1976) series F5 and Y336.

[5] Peppers, "Full-Employment Surplus Analysis," p. 208.

[6] U.S. National Resources Planning Board, *Security, Work, and Relief Policies* (Washington, D.C.: U.S. GPO, 1942), pp. 326–27. This source and these figures were reported by Kesselman and Savin, "Three-and-a-Half Million Workers," p. 214.

[7] It should be clear that federal debt purchases made by federal government agencies use taxes which have been collected, and really should be treated as additional expenditures financed by additional taxes rather than as debt-financed additional expenditures.

[8] It is still common in macro texts to find expositions of

the lump sum tax "balanced budget multiplier" of unity (or less than unity if taxes vary with income). It is usually not noted that this result can only hold if individuals "save" in the form of idle currency holdings, or that savings placed in financial institutions by individuals are always matched by a rise in idle excess reserves of the financial institutions. It should be noted that a similar type of rather implausible assumption underlies the full-employment balanced budget (or "high employment surplus") concept. The general idea is that if the government tax and expenditure functions are such as to produce a budget surplus at full employment, then the "drag" makes it unlikely that full employment will be achieved. This holds only if the government collects the surplus in cash and holds it in government vaults. If the surplus is used to reduce the government's debt or even is placed as deposits in financial institutions, then the funds will be transferred to individuals or firms that will spend the money, and the surplus is no longer a drag on the economy. A quick examination of the prosperous, high-employment 1920s, when the government used the huge surplus of each year to reduce the government debt, quickly illustrates the nonsense of the idea that any government budget surplus that would arise at full employment is a drag on reaching full employment.

[9] Milton Friedman and Anna Schwartz, *A Monetary History of the United States: 1867–1960* (Princeton: Princeton University Press for the National Bureau of Economic Research, 1963), table B-3, pp. 803–5.

[10] Though the use of demand deposits by private households was increasing prior to World War II, it was well after the war before checking account use by private households became nearly universal. In the interwar period, businesses were much more important users of demand deposits. In the 1920s, as business firms, particularly the larger ones, increasingly turned to nonbank sources of borrowed funds, short-term business lending and demand deposits as fractions of banks' assets and liabilities both sharply declined. For a discussion of this, see Benjamin Klebaner, *Commercial Banking in the United States: A History* (Hinsdale, Ill.: Dryden, 1974).

[11] Since most households held savings in time deposits when the required reserve ratio was much lower, the decline in private sector spending (due to the decline in bank lending) would come very close to offsetting the rise in federal spending. (The required reserve ratio on time deposits was 3 percent through August 15, 1936; it was then raised in three steps to 6

percent on May 1, 1937. On April 16, 1938, it was lowered to 5 percent, where it remained through most of 1941.) For demand deposits, with their higher required reserve ratios, there would be a small rise in aggregate spending in the year higher required reserve ratios take place since the rise in spending effectively increases the income velocity of money in that year. In other words, there would be one additional round of final purchase transactions equal to the fraction of savings coming from reserves against the deposits (which were used to pay the increased taxes). The effect would be relatively small.

[12] A simple numerical example will illustrate this. Suppose that the marginal propensity to consume is 0.9 so that the spending multiplier is 10, and the deposit/currency ratio is 7. Federal spending and taxes increase by $100 million and "savings" are reduced by $10 million. Deposit "savings" are reduced by $8.57 million and currency "savings" by $1.43 million. Since only the reduction in currency savings does not create a reduction in private spending offsetting the rise in federal spending, aggregate spending will ultimately rise by $14.3 million for a $100 million rise in federal government spending and in federal taxes. The balanced budget multiplier then is 0.143, significantly less than one. I can also illustrate the effect of temporarily putting reserves to use. Suppose that the banks held deposit reserves of 15 percent. The loss of $8.57 million of deposits would reduce banks' reserves by $1.2855 million and banks' lending by $7.2845 million. The increase in federal spending of $8.57 million in that year means that net aggregate spending would rise by $1.2855 million in that year. Therefore, in the first year, a $100 million increase in federal spending and taxes would lead to aggregate spending $1.2855 million greater than that fraction of the $14.3 million increase (due to the multiplier effect) occurring in the first year. The net spending multiplier in the first year probably would not be far in excess of zero. This result would be stronger if taxes (part or all) are made a function of the level of income, as was the case. This is the optimistic scenario since it assumes that higher tax rates will not drive more economic activity "underground" nor reduce output and income by discouraging economic activity and increasing the consumption of leisure.

[13] Federal agencies and trust funds (such as the social security system) were using tax revenues they had collected to "purchase" the debt. My discussion suggests that there is little reason to think that there was a multiplier very much above zero

on federal expenditures financed by equivalent tax increases, which is what the purchase of federal debt by federal government agencies and trust funds would amount to.

[14] The information in *Banking and Monetary Statistics* (Washington, D.C.: National Capital Press, 1943) did not provide any information on the distribution of the government debt held by individuals and firms in the "other investors" category.

[15] See Arthur E. Gandolfi, "Stability of the Demand for Money during the Great Contraction—1929–1933," *Journal of Political Economy* 82 (September/October 1974), pp. 969–84; Arthur E. Gandolfi and James R. Lothian, "The Demand for Money from the Great Depression to the Present," *American Economic Review* 66 (May 1976), pp. 46–51; Moshin S. Khan, "The Stability of the Demand-for-Money Function in the United States 1901–1965," *Journal of Political Economy* 82 (November/December 1974), pp. 1205–19; David E.W. Laidler, *The Demand for Money: Theories and Evidence* (Scranton, Pa.: International Textbook, 1969); and John T. Boorman, "The Evidence on the Demand for Money: Theoretical Formulations and Empirical Results," pp. 315–60 in Thomas M. Havrilesky and John T. Boorman, eds., *Current Issues in Monetary Theory and Policy*, 2nd ed. (Arlington Heights, Ill.: AHM, 1980).

[16] See Gene Smiley, "Regional Variation in Bank Loan Rates in the Interwar Years," *Journal of Economic History* 41 (December 1981), pp. 889–901.

[17] This data on insurance companies come from Harold G. Williamson and Orange A. Smalley, *Northwestern Mutual Life: A Century of Trusteeship* (Evanston, Ill.: Northwestern University Press, 1957).

[18] Louis Dublin, *A Family of Thirty Million: The Story of the Metropolitan Life Insurance Company* (New York: Metropolitan Life Insurance Company, 1943).

[19] Williamson and Smalley, *Northwestern Mutual Life*, p. 266.

[20] Ibid., p. 268.

[21] Ibid.

[22] Friedman and Schwartz, *A Monetary History*, table B-3, pp. 803–5.

[23] See Smiley, "Regional Variation."

[24] Ben Bernanke, "Nonmonetary Effects of the Finance Crisis in the Propagation of the Great Depression," *American Economic Review* 73 (June 1983), pp. 257–76.

[25] Lewis Kimmel, *The Availability of Bank Credit, 1933–*

1938 (New York: National Industrial Conference Board, 1939), cited as Bernanke, "Nonmonetary Effects."

[26] These data are reported in W.L. Stoddard, "Small Business Wants Capital," *Harvard Business Review* 18 (1940), pp. 265–74, as cited by Bernanke, "Nonmonetary Effects."

[27] See Friedman and Schwartz, *A Monetary History*, pp. 511–34.

[28] Ibid., pp. 526–27.

[29] Richard Timberlake has pointed out that required reserves were not, in fact, usable by the banks. Excess reserves could be used when there were large conversions of deposits to currency holdings. Given the notable failure of the Federal Reserve System to discount member banks' assets to provide the banks with liquidity during the banking crises, he suggests that it is not surprising that excess reserves were built up to reduce the banks' reliance upon an undependable Federal Reserve System.

[30] Michael M. Weinstein, *Recovery and Redistribution under the NIRA* (Amsterdam: North-Holland, 1980), and "Some Macroeconomic Impacts of the National Industrial Recovery Act, 1933–1935," chap. 14 in Karl Brunner, ed., *The Great Depression Revisited* (Boston: Martinus Nijhoff, 1981).

[31] Recent Keynesian research has suggested that one mechanism by which expansionary fiscal policy could have provided some additional impetus toward recovery is as follows. The government spending financed by the additional government debt will increase the demand for commodities and services, while the sale of the debt might not diminish spending elsewhere. If the government bonds are viewed as increments to net wealth, while the future taxes implied by the government debt are not perceived and discounted by private citizens, then consumption spending out of permanent income might rise so that there is less, or perhaps little, induced decrease in private consumption spending. This situation, however, did not apply in the 1930s. The mechanism requires that households purchase the debt so that the discrepancy between the perceived wealth effects and debt effects can lead to increases in consumption spending out of permanent income. As noted, nearly all of the federal debt issued was purchased by the financial intermediaries, and the data suggest that they did reduce purchases of other securities and reduce lending when this occurred. Therefore, investment spending had to decline. The discussion of this effect was reopened by Martin J. Bailey and Robert J. Barro. See Martin J. Bailey, *National Income and the*

Price Level (New York: McGraw-Hill, 1962, 1971); and Robert J. Barro, "Are Government Bonds Net Wealth?" *Journal of Political Economy* 82 (December 1974), pp. 1095–1117. There are many recent articles on this subject. For a list of references, see Roger C. Kormendi, "Government Debt, Government Spending, and Private Sector Behavior," *American Economic Review* 73 (December 1983), pp. 994–1010.

[32] In this analysis I am guided by the writings of a number of Austrian economists. The foundations of this analysis are: Ludwig von Mises, *Human Action: A Treatise on Economics*, 3rd rev. ed. (Chicago: Henry Regnery, 1966), chap. 20 in particular; Friedrich A. Hayek, *Prices and Production* (New York: Augustus M. Kelly, 1931, reprinted 1967); Hayek, *Monetary Theory and the Trade Cycle* (London: Jonathan Cape, 1933); Hayek, *Individualism and Economic Order* (Chicago: Henry Regnery, Gateway edition, 1948); Murray N. Rothbard, *Man, Economy, and State: A Treatise on Economics*, 2 vol. (Los Angeles: Nash, 1962, reprinted 1970), particularly chaps. 5–7 and 11–12; and Rothbard *America's Great Depression* (Los Angeles: Nash, 1963, reprinted 1970). Recent studies include the following: Ludwig M. Lachmann, "Toward a Critique of Macroeconomics," and Gerald P. O'Driscoll, Jr., and Sudha R. Shenoy, "Inflation, Recession, and Stagflation," pp. 152–59 and 185–211 in Edwin G. Dolan, ed., *The Foundations of Modern Austrian Economics* (Kansas City: Sheed and Ward, 1976); Gerald P. O'Driscoll, Jr., "Spontaneous Order and the Coordination of Economic Activities" and Roger W. Garrison, "Austrian Macroeconomics: A Diagrammatical Exposition," pp. 111–42 and 167–204 in Louis M. Spadaro, ed., *New Directions in Austrian Economics* (Kansas City: Sheed and Ward, 1978); and, Gerald P. O'Driscoll, Jr., *Economics as a Coordination Problem: The Contributions of Friedrich A. Hayek* (Kansas City: Sheed, Andrews, and McMeel, 1977).

[33] The price inflation from 1933 on was the result of an increasing stock of money, as well as, initially, the NIRA. The money stock rose as bank reserves were increased due to the inflow of gold into the United States.

[34] Although conventional macroeconomic analysis generally does not recognize the predominance of the local effects over the national effects arising from increases in federal spending, one does not have to listen to politicians very long to realize that they clearly recognize this. It was not different in the 1930s. Several years ago, Leonard Arrington and then his student Don Reading used a number of economic variables in an attempt

to explain the state-by-state variation in per capita New Deal spending. See Leonard J. Arrington, "The New Deal in the West: A Preliminary Statistical Inquiry," *Pacific Historical Review* 38 (August 1969), pp. 311–16; Arrington, "Western Agriculture and the New Deal," *Agricultural History* 44 (October 1970), pp. 337–53; and Don C. Reading, "New Deal Activity and the States, 1933 to 1939," *The Journal of Economic History* 33 (December 1973), pp. 792–810.

Gavin Wright later reexamined the issue, arguing that the political factor had to be taken into account. Wright's study convincingly argued that New Deal spending tended to be concentrated in those states where the spending was more likely to change the course of an election because the voting was expected to be close or there had been substantial swings in voter sentiment in the past. This brings into question one of the most fundamental assumptions of Keynesian macroeconomic analysis. See Gavin Wright, "The Political Economy of New Deal Spending: An Econometric Analysis," *Review of Economics and Statistics* 56 (February 1974), pp. 30–38.

[35] The concept of the coordination of the plans of transactors as the economic problem is a fundamental one that runs all through the literature on Austrian economics. It is difficult to point to a few individuals as primarily responsible for developing the ideas. However, Friedrich A. Hayek's writings have dwelled on this somewhat more than other Austrian economists' and, for economists in general, his name is probably more closely associated with these ideas. Gerald O'Driscoll makes an excellent argument that the concept of the economic problem being really one of coordination is woven into all of Hayek's writings, ranging from monetary-business cycle theory, to capital theory, to his pathbreaking articles on economics and knowledge, and on to his work on law, legislation, and liberty. In the following brief exposition I shall draw primarily on O'Driscoll, *Economics as a Coordination Problem*, chap. 2. O'Driscoll's chapter primarily is built upon several touchstone papers by Hayek, all of which were reprinted in Hayek's *Individualism and Economic Order*. Those papers are "Economics and Knowledge," *Economica* 4 (new series, 1937), pp. 33–54; "The Use of Knowledge in Society," *American Economic Review* 35 (September 1945), pp. 519–30; and "The Meaning of Competition," the Stafford Little Lecture delivered at Princeton University on May 20, 1946.

[36] Hayek, "Economics and Knowledge," pp. 50–51. This

statement was quoted in O'Driscoll, *Economics as a Coordination Problem*, p. 26.

[37] O'Driscoll, ibid., p. 27.

[38] In particular, see Hayek, *Prices and Production*, pp. 160–62; Lionel Robbins, *The Great Depression* (New York: Macmillan, 1934); and Rothbard, *America's Great Depression*. Murray Rothbard's book is the most extensive and complete examination of the Great Depression, in terms of the monetary disturbances that created the disaster as well as the further discoordinating actions which made it become so long and so severe. Recently, Charles Wainhouse (a Ph.D. student of Gerald P. O'Driscoll, Jr., at New York University) wrote a dissertation on business cycles. Using extensive empirical techniques, his results were further support for the Austrian explanation of the Great Depression.

[39] Gerald P. O'Driscoll, Jr., "Foreword" in Friedrich A. Hayek, *Unemployment and Monetary Policy: Government as Generator of the "Business Cycle,"* Cato Paper no. 3 (San Francisco: Cato Institute, 1979), p. xi.

[40] It is important to emphasize several points which non-Austrian economists often misinterpret. First, the Austrian theory of the business cycle begins with monetary disturbances which disrupt prices, but the business cycle involves the misallocation of real resources. This means that the ending of the inflation (monetary disturbance) exposes the misallocation of the real capital resources. Because of the costliness of reallocating real nonhuman resources (many of which are specific to the production of quite limited products and even a particular stage of production), a contraction is inevitable. Second, the Austrian theory of the business cycle is *not* an overinvestment theory. Rather it is a "malinvestment" theory concerning investment that is misdirected. It is not necessary for the magnitude of investment to be greater than if there had been no monetary disturbances. For extended discussions of these points see Hayek, *Prices and Production* and Rothbard, *America's Great Depression*, particularly part I.

[41] Hayek, *Prices and Production*, pp. 161–62.

[42] Rothbard, *America's Great Depression*, especially part III, chap. 7–12.

[43] Ibid., pp. 188–90 and 237–38.

[44] Rothbard argues that the actions undertaken by the federal government and Federal Reserve System prolonged the time that it took for the money stock and prices to fall and to eliminate the "unsound" banks. He also argues that deflation is

not as much of a problem as inflation. Inflation lowers interest rates, disturbs the prices of capital goods, and leads to malinvestments that, to be worked off, require an economic contraction. Deflation does not lead to malinvestments of capital that require a contraction to be worked off.

[45] Much of these data are drawn from Lester V. Chandler, *America's Greatest Depression, 1919–1941* (New York: Harper & Row, 1970).

[46] Ibid., p. 201.

[47] Ibid., pp. 203–5.

[48] Ibid., p. 193.

[49] Ibid., p. 200.

[50] Some of this is discussed in Chandler, chap. 13. A much more thorough and critical discussion can be found in Paul K. Conkin, *The New Deal*, 2nd ed. (Arlington Heights, Ill.: AHM Publishing, 1975). This is also discussed in Weinstein, *Recovery and Redistribution*. Weinstein's perspective is somewhat different. He criticizes the NIRA because it attempted (with some success) to raise prices and wages. This thwarted the expansionary effect that the increase in the stock of money (through gold inflows) would have had. He follows the view that the location of the net increase in spending (due to the increase in the stock of money) was not important; only the magnitude was important. This increasingly critical view of the New Deal can also be found in the more recent U.S. economic history textbooks. See Jonathan Hughes, *American Economic History* (Glenview, Ill.: Scott, Foresman, 1983) and Stanley Lebergott, *The Americans: An Economic Record* (New York: W.W. Norton, 1984).

[51] These figures were calculated from Friedman and Schwartz, *A Monetary History*. From January 1940 through January 1942, the share of the growth in M2 due to changes in the high-powered money was 89.96 percent. The share due to changes in the deposit/reserve ratio was 36.08 percent, but, largely offsetting this, the share due to changes in the deposit/currency ratio was -22.91 percent. The shares will not add to 100 percent due to the interaction of the deposit/reserve and deposit/currency ratios.

[52] One possibility, which generally seems not to have been examined, is that the unionization surge as well as the Federal Reserve System's deflationary monetary policy brought on the contraction running from mid-1937 through mid-1938.

[53] Under normal circumstances, one would expect the improvement to have been temporary since the increased

demand for unionized firms would last only as long as the government's extraordinary expenditures continued, and the inflationary monetary policy would lead to discoordination. Of course, these were not normal times. The government's war expenditures grew rather than declined, and the federal government began to impose economic controls as early as May 1940. The first price schedule was issued in February 1941, and the Office of Price Administration and Civilian Supply was established in April 1941. Wages were brought under government control in December 1941. In April 1942, wages and prices were frozen. By that time, the extensive rationing system was imposed and it continued through the end of World War II. For a discussion of World War II wage and price controls, see Hugh Rockoff, *Drastic Measures: A History of Wage and Price Controls in the United States* (New York: Cambridge University Press, 1984).

[54] One does not test an economic theory. Given the theory's premises, it is either logically true or false. Though people know that this is the case, economists seem to continually talk about "testing" theories rather than determining whether the initial conditions are consistent with the premises of the theory.

GNP, PPR, and the Standard of Living

Robert Batemarco

Over the past two decades, economists have observed and become professionally concerned with falling rates of economic growth. To many young people today trying to establish homes and raise families, that concern is not merely professional. Despite their greater investment in education than any previous generation and despite the extent to which two-earner households have become the norm, this generation, by all indications, is likely to be the first in U.S. history not even to maintain, let alone improve upon, the standard of living enjoyed by their parents.[1]

Standard measurements of economic activity conceal much of this development. Gross national product since 1960 has exhibited seldom-interrupted growth even in real per capita terms.[2] Either the perception described in the first paragraph is amiss or standard measurements are faulty. My aim in this article is to examine alternative measurements which accord with these perceptions to a greater extent than do the standard ones. Such an alternative has been developed by Murray Rothbard.[3] In the second section of this article, I describe that measurement and explain the analytical insights from which it was derived. In the third section, I calculate its values from 1947 to 1983, and compare its growth rates over that period. The fourth section examines the assumptions underlying that measure and indicates the consequences of making them less restrictive. Concluding comments constitute the fifth section.

Austrian economics places great emphasis on the subjective nature of value. In his "Toward a Reconstruction of Utility and Welfare Economics," Murray Rothbard draws the implication that the valuations individuals place on economic goods are revealed only by their actions.[4] Thus, the only way economists can place a monetary value on some commodity is by observing an individual voluntarily exchanging a certain amount of his own money for that commodity. A person who pays $20 for a shirt reveals that he values the shirt more than he values the $20.

While this concept is by no means unique to the Austrian school,[5] hardly any non-Austrian economist has cared to push it to its logical conclusion as far as national income accounting is concerned.[6] This is just what Rothbard does, however. Because government output is, with few exceptions, not sold on the market, one cannot accurately measure its value. Furthermore, the fact that such output must be financed coercively (through taxation) creates at least a presumption that those unwilling to pay for such output do not place *any* value on it.

Rothbard treats government output as if this were precisely the case in defining his measurements "gross private product" (GPP) and "private product remaining with producers" (PPR). Gross private product is defined as gross national product less income originating in government and government enterprises.[7] To the extent that government enterprises charge fees for their output, it seems that deducting only the subsidized part of their income would be more consistent with the considerations just discussed than deducting all of them, as Rothbard does. Private product remaining with producers is computed by deducting the higher of government expenditures and tax revenues plus interest received from gross private product.[8] Transfer payments as well as exhaustive expenditures are deducted since they too wind up in the hands of nonproducers. Rothbard characterizes these expenditures as depredations upon private output.[9]

Rothbard anticipates the criticism that first subtracting income originating in government and then subtracting government expenditures is a form of "double counting."[10] An example may clarify this issue. Suppose there were a very simple economy, in which farmers produced 1,000 bushels of wheat and the government collected 200 bushels in taxes to support workers whose output was not sold to the farmers on the market. GNP would be 1,200 bushels (private output plus costs of producing government output), GPP would be 1,000 bushels, and PPR would be 800 bushels. Indeed, 800 bushels of wheat is all that remains in the hands of the farmers who produced it, which would be the definition of PPR in this case.

Table 1 shows the calculation of GPP and PPR. I first calculate nominal GPP and PPR, and then use the GNP deflator to calculate real PPR.

The figures in table 1 corroborate to some extent the impressions described in the introductory paragraphs of this

article. This can be more clearly seen when the figures are expressed in terms of growth rates. While real GNP grew at an annual rate of 3.5 percent between 1947 and 1983, real PPR grew by only 2.4 percent annually. This gap widens when one looks at more recent periods. Between 1965 and 1983, real GNP grew at a 3.2 percent rate compared to 1.6 percent for real PPR. Between 1973 and 1983, the figures are 2.8 percent and 1.0 percent for real GNP and real PPR respectively. Finally, from 1978 to 1983, real PPR fell by 0.4 percent per year while real GNP growth rose by 2.7 percent.

Table 1
Measures of Output (*measured in billions of current dollars except for real PPR, which is measured in billions of 1972 dollars*)

	GNP	*Income Produced by Government and Government Enterprises*	*GPP*	*Government Depredations*[a]	*PPR*	*Real PPR*
1947	233.1	19.3	213.8	56.9	156.9	316.6
1948	259.5	20.2	239.3	58.9	180.4	340.5
1949	258.3	22.5	235.8	59.3	176.5	336.2
1950	286.5	23.8	262.7	70.2	192.5	359.4
1951	330.8	30.8	300.0	85.6	214.4	375.5
1952	348.0	35.3	312.7	93.9	218.8	377.8

1953	366.8	36.4	330.4	101.7	228.7	388.8
1954	366.8	36.9	329.9	97.0	232.9	391.1
1955	400.0	38.5	361.5	102.4	259.1	425.9
1956	421.7	40.7	381.0	110.6	270.4	430.6
1957	444.0	44.0	400.0	117.6	282.4	434.9
1958	449.7	47.1	402.6	127.6	275.0	416.4
1959	487.9	50.0	437.9	131.0	306.9	454.0
1960	506.5	53.4	453.1	142.8	310.3	451.7
1961	524.6	56.7	467.9	149.1	318.8	459.8
1962	565.0	61.1	503.9	161.0	342.9	485.6
1963	596.7	65.9	530.8	172.8	358.0	499.5
1964	637.7	71.2	566.5	181.9	384.6	528.5
1965	691.1	76.7	614.4	193.4	421.0	566.2
1966	756.0	86.4	669.6	220.1	449.5	585.6
1967	799.6	96.3	703.3	242.4	460.9	583.0
1968	873.4	108.1	765.3	273.8	488.5	591.8
1969	944.0	118.2	825.8	305.0	520.8	600.1
1970	992.7	130.5	862.2	315.3	546.9	598.0
1971	1077.6	141.8	935.8	344.6	591.2	615.8
1972	1185.9	155.4	1030.5	396.8	633.7	633.7
1973	1326.4	167.8	1158.6	433.1	725.5	686.0
1974	1434.2	182.7	1251.5	483.8	767.7	667.1
1975	1549.2	202.0	1347.2	539.8	807.4	641.9
1976	1718.0	220.4	1497.6	591.5	906.1	684.7
1977	1918.3	237.2	1681.1	675.3	1005.8	718.2
1978	2163.9	259.1	1904.8	740.8	1164.0	773.8
1979	2417.8	279.6	2138.2	821.5	1316.7	805.7
1980	2631.7	308.1	2323.6	949.9	1373.7	769.9
1981	2957.8	338.1	2619.7	1082.4	1537.3	785.9
1982	3069.3	364.7	2704.6	1193.0	1511.6	728.9
1983	3304.8	392.1	2912.7	1291.1	1621.6	753.0

Source: *The Economic Report of the President, 1985*, pp. 236, 244, 275, 320, and 312.

[a]The higher of government expenditures or tax receipts plus interest received at federal level plus the same variables at state and local level.

Of perhaps more relevance to the question of what has been happening to the U.S. standard of living is the PPR per person. Rather than taking a simple per capita PPR, I divide PPR by the number of producers responsible for it. This means that I subtract government employees from total employment to obtain nongovernment employment. PPR per person employed not by the government is given in table 2.

These figures make it clear that steady growth of real PPR

per producer ceased after 1966. Since that time the trend has, with some interruption, been downward. The 1983 figure is approximately the same as that for 1964. This tells a far different story than does the 2.3 percent annual rate of increase in the standard measure, per capita GNP, during that same period.

Real PPR per Person Employed by the Private Sector
Table 2

	Real PPR (billions of 1972 dollars)	*Employment (Nongovernment) (millions)*	*Real PPR/ Employment (Nongovernment) (1972 dollars)*
1947	316.6	51.3	6,172
1948	340.5	52.7	6,461
1949	336.2	51.8	6,490
1950	359.4	52.9	6,794
1951	375.5	53.6	7,006
1952	377.8	53.6	7,048
1953	388.8	54.5	7,134
1954	391.1	53.4	7,324
1955	425.9	55.3	7,702
1956	430.6	56.5	7,621
1957	434.9	56.4	7,711
1958	416.4	55.2	7,543
1959	454.0	56.6	8,021
1960	451.7	57.4	7,869
1961	459.8	57.2	8,038
1962	485.6	57.8	8,401
1963	499.5	58.5	8,538
1964	528.5	59.7	8,852
1965	566.2	61.0	9,282
1966	585.6	62.1	9,430
1967	583.0	63.0	9,254
1968	591.8	64.1	9,232
1969	600.1	65.7	9,134
1970	598.0	66.1	9,047
1971	615.8	66.5	9,260
1972	633.7	68.8	9,211
1973	686.0	71.3	9,621

1974	667.1	72.6	9,189
1975	641.9	71.2	9,015
1976	684.7	73.9	9,265
1977	718.2	76.9	9,339
1978	773.8	80.4	9,624
1979	805.7	82.9	9,719
1980	769.9	83.0	9,276
1981	785.9	84.4	9,312
1982	728.9	83.7	8,708
1983	753.0	85.0	8,859

Rothbard's definitions of GPP and PPR are both consistent and clear enough to not be misleading. To give a reliable description of economic reality, however, it is necessary that the assumptions on which their relevance is based be grounded in reality. Anyone not sharing Rothbard's anarchocapitalist leanings, however, would recoil from the assumption that the government produces nothing of value. Indeed, even anarchists are aware that the undesirability of government provision of some service does not in and of itself make the provision of that service undesirable. The fact that the government provides armed forces, a court system, and police makes it extremely difficult to measure the value of those services but does not deprive them of their value. The nonexclusivity of such services (their being public goods) means that people will not demonstrate their true preferences because they are never faced with the alternative of forgoing such services if their value fails to exceed the costs. This is what economists call the free rider problem.

Even allowing for the public goods nature of certain items produced by government, their exclusion from PPR is made less difficult by a fact that would lead us to question their inclusion in GNP: government output that is truly valuable very seldom provides direct utility to ultimate consumers. Rather, much of it is actually an intermediate good. National defense can be thought of in this way.[11] The definition of GNP deliberately excludes intermediate goods. Thus, it is possible without denying the value of some of the services produced by government to exclude them from GNP and thus *a fortiori* from GPP and PPR.

On the other hand, there is no doubt that many people find much government activity useless if not downright objectionable even if they disagree on which activities fall into these categories. Lipset and Schneider cite the median response of

people asked what percentage of their tax money is wasted by the federal government to be 48 percent.[12] David Boaz estimates that at least 35 percent of 1982 federal expenditures are of no value to anyone except the special interests which got them enacted in the first place.[13] The Grace Commission, which directed most of its scrutiny to the efficiency with which the federal government provides services rather than to the desirability of the services themselves, was able to find one-third of taxes to be "consumed by waste and inefficiency."[14]

What I have shown is that to the extent that government spending consists either of waste or of intermediate goods, measurement of the standard of living of those working in the private sector is rendered much more accurately by Rothbard's measurement of PPR per private sector worker than by the Department of Commerce's per capita GNP. The former indicates that the standard of living for workers in the private sector has been at a standstill since 1964, while the latter exhibits growth in the 2 percent per annum range. Nevertheless, there are two possible interpretations of these facts. The one presented in the introduction to this article is simply that the U.S. standard of living has stopped rising. The other possibility is that economic activity has quickened its shift into the underground economy. While such unreported production is counted in neither GNP nor PPR, it does contribute to the standard of living of those responsible for it. The underground economy renders any measurement of aggregate economic activity suspect.

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[1] Phillip Longman, "The Downwardly Mobile Baby Boomers," *Wall Street Journal*, April 12, 1985, p. 28.

[2] Per capita real GNP rose from $4,080 in 1960 to $6,544 in 1983 (a 2.1 percent annual rate). Derived from *Economic Report of the President, 1985* (Washington, D.C.: U.S. Government Printing Office, 1985), pp. 234, 265.

[3] Murray Rothbard, *America's Great Depression* (Kansas City: Sheed and Ward, 1963), pp. 224–26, and 296–304.

[4] Rothbard in Mary Sennholz, ed., *On Freedom and Free Enterprise* (Princeton: D. Van Nostrand, 1956), pp. 224–62. He calls this principle "demonstrated preference."

[5] Oscar Morgenstern applies it in his classic discussion of the treatment of government spending in *On the Accuracy of Economic Observations*, 2d ed., completely revised (Princeton: Princeton University Press, 1963), pp. 247–48.

[6] Tom Bethell is one exception. See his "Taxes and GNP," *National Review*, September 17, 1982, p. 1134.

[7] Rothbard, *America's Great Depression*, p. 296.

[8] Ibid., p. 297. I have disaggregated into federal, and state and local and taken the higher for each.

[9] Ibid., p. 296.

[10] Ibid., p. 335.

[11] Morgenstern, p. 247.

[12] Lipset and Schneider, *The Confidence Gap* (New York: Free Press, 1983).

[13] David Boaz, "How to Really Cut the Budget," *Inquiry*, April 12, 1982.

[14] J. Peter Grace, *War on Waste: President's Private Sector Survey on Cost Control* (New York: Macmillan, 1984), p. vii.

The Economics of Time and Ignorance: A Review

Charles W. Baird

This is a very difficult review for me to write, for my overall assessment of *The Economics of Time and Ignorance* is strongly negative. Jerry O'Driscoll got me started in Austrian economics, and I have over the years learned much of value from him. Both he and Mario Rizzo have excellent track records of significant contributions to the revival of the Austrian school in the 1970s and 1980s, and I am certain they will make such contributions in the future. The present book, however, is not such a contribution. In it the authors make much of the distinction between typical and unique features of events. Regretfully, the book is not typical of the authors' work, and its problems, as I will relate, are quite unique.

The dust jacket of the book calls it:

> The first contemporary account of [the Austrian school's] foundations. In it [the authors] present an integrated view of its themes and make an original contribution to our understanding of uncertainty and dynamic processes.

In the acknowledgments, the reader is told that the book was originally conceived as an exposition of standard contemporary Austrian school economics. It was to be an extension of the paper "What Is Austrian Economics?" the authors delivered at the 1980 American Economic Association meeting. Most Austrian economists who knew that the book was being written expected that it would be precisely that; and most of them, especially this reviewer, looked forward to having just such an authoritative exposition available to open-minded neoclassical economists and for their own classroom use.

If the authors had stuck to their original intentions and focused their energies on producing a lucid exposition of standard Austrian theory together with clear and convincing illustrations setting out the many advantages of the Austrian perspective over the dominant neoclassical orthodoxy, they

would have indeed advanced the Austrian resurgence. But they fell prey to the temptation to focus on what the dust jacket calls their "original contribution." As they put it at the beginning of chapter 1, they came to feel they had to "go beyond" standard Austrian theory.

That was a most unfortunate decision. Economists are all much the worse for it. They should have saved the original contribution for a separate book, for in their attempt to do both tasks in one volume they offer many confusing expositions of standard Austrian economics, and they present a most unconvincing case in support of their original contribution.

The first five chapters of the book are devoted to theory, and the remaining five chapters discuss applications. Chapters 7–9 are the best. Here the authors exposit standard Austrian theory unencumbered by their original contribution. Chapters 4–6 are the worst in the volume. Here the authors seem literally to strain for originality. In so doing, they suggest spurious distinctions between standard Austrian theory and their own approach, and they discuss the work of Hayek (and, to a much smaller extent, of von Mises and Kirzner) in a misleading and confusing way.

It soon becomes apparent that the key ideas in their original contribution involve several distinctions hitherto unknown even to Austrian economists. Two such distinctions are introduced in chapter 1, "An Overview of Subjectivist Economics"—the distinction between static subjectivism and dynamic subjectivism, and between static (or Newtonian) time and real time. Since these distinctions are novel even to Austrian economists, it behooves the authors carefully and clearly to set out their points right from the beginning. They do not.

To an Austrian, the subjectivist nature of economics refers to the fact that economics is about the formulation and consequences of the plans and actions of people as they attempt to do the best they can for themselves within a context of imperfect information and scarcity. The focus of attention is on the subjects, not the objects, of human action. Each individual's plans and actions are formulated on the basis of perceived costs and benefits. Both costs and benefits are subjective. That is, they both have whatever significance the individual's mind attaches to them. Neither costs nor benefits are objectively observable or measurable by third parties. As the authors phrase it, "for the Austrians, and for subjectivists generally, economics is first and foremost about the thoughts leading up to choice, and not about things or objective magnitudes" (p. 2).

So far, so good. But then the reader is told that there are two kinds of subjectivism—static and dynamic. No explanation is offered. The reader is simply told that "[s]ubjective probability . . . reflects subjectivism in its static form; while unbounded possibility sets reflect the essentially dynamic aspect of subjectivism" (p. 4).

Neoclassical models typically handle uncertainty by positing the existence of known probability distributions of possible future events. Austrian economists have long argued that such known probability distributions merely replace one version of the perfect knowledge assumption with a more sophisticated version of the same assumption. In the real world, however, there is genuine uncertainty. As Frank Knight long ago pointed out, not even the probability distributions are known; that is, in the words of the present authors, human action takes place within the context of "unbounded possibility sets."

That is fine, but it is nothing new. And it certainly is insufficient justification for creating a hitherto unknown distinction between static and dynamic subjectivism. An Austrian, to say nothing of a neoclassical economist, is left bewildered. Perhaps, however, the authors' intent is to whet the reader's appetite for chapter 2, "Static versus Dynamic Subjectivism."

Austrian economists have also long objected to what they perceived to be an abuse of time in much neoclassical analysis. In that analysis, time is represented by *t* and treated as a mathematical variable, different values of which can be plugged into mathematical equations. The analyst assumes a godlike posture of comprehending all time—past, present, and future—at once, usually as positions along an axis labeled *t*. The past can be retrieved at any instant by picking a value of *t* that represents the past and plugging it into an equation. Similarly, the future can be realized at any instant by picking a value of *t* that represents the future. From the perspective of the present, the future already exists in determinate form. It merely has to be reached as another place on an axis. Functions are even held to be continuous and at least twice differentiable in *t*.

In reality, of course, time is not an objective entity that can be treated as an independent variable in a function in the same way that own price is treated as an independent variable in a demand function. Time exerts no influence in its own right in economic transactions. It is what people do in time, including the contracts they enter into that involve the elapse of specific

periods of time, that influences economic transactions. Time is subjectively experienced by each individual as, in the words of the authors, "a flow of events." The future does not already exist to be reached; the future becomes what it is as the result of actions taken in the present. Since those actions are indeterminate, so too is the future. Real time is merely time treated as it is actually experienced and as it actually enters into individual decision making. Static or Newtonian time (time treated as an independent mathematical variable) is artificial and can shed no light on the formulation and consequences of human action. Such is standard Austrian fare.

But the present authors again bewilder the reader, especially the neoclassical reader, by stating that when time is conceived in purely static terms, it is "analogized to space: Just as an individual may allocate portions of space (land) to certain purposes, he can also allocate portions of time to certain activities" (p. 3). Do the authors mean to suggest that people do not allocate time in that fashion? Economists of both the Austrian and neoclassical varieties surely will object. I, for example, have allocated a specific period of time to writing this review. But here again, perhaps the authors merely intend to whet the reader's appetite for chapter 4, "The Dynamic Conception of Time."

Contrary to reasonable expectations generated by its title, chapter 2 does little to clarify the distinction between static and dynamic subjectivism. The reader is reminded that the subjectivist realm is that of "purposes, plans, valuations, and expectations" (p. 18). Then static subjectivism, the kind that "is most closely related to the traditional subjective theory of value," is explained as that approach in which "the mind is viewed as a passive filter through which the data of decisionmaking are perceived" (p. 22).

Now, if one interprets "the traditional subjective theory of value" to mean the neoclassical model of Hicks et al. with its ordinal utility, indifference curves, and budget constraints, one is led to think that "static subjectivism" refers to decision making within a given and fixed means-ends framework. That view seems to fit in well with the authors' explanation of dynamic subjectivism which "views the minds as an active, creative entity in which decision-making bears no determinate relationship to what went before" (p. 22). This could be taken as a roundabout way of saying that the means-ends framework itself is constantly changing as individuals' beliefs, knowledge, and perceptions

change. If that is what the authors mean, “dynamic subjectivism” is the subjectivism of the standard Austrian analyses of Carl Menger, Ludwig von Mises, Friedrich A. Hayek, Israel Kirzner, Murray Rothbard, and others.

But that cannot be. The authors must intend something else by “dynamic subjectivism.” They go on to say that static subjectivism is akin to the covering law model of scientific explanation of which von Mises’s “apodictic praxeological theorems” are suggested as examples (p. 23). Von Mises, then, does not qualify as a dynamic subjectivist. But von Mises’s praxeological theorems are “apodictic” only in the sense that as deductions from axioms they are implicit in the axioms. There is nothing in von Mises that says that decision making is preordained or predetermined by what went before. So what *is* “dynamic subjectivism”? No clear answer can be found in chapter 2, or in the rest of the book.

The confusion does not stop there. On pp. 22–27, the authors discuss the nature of explanation and prediction in economics. The trouble is that they switch back and forth between explanation and prediction without giving the reader any warning. In so doing, they implicitly subscribe to the “symmetry thesis” of covering law models—explanation and prediction are exactly the same, except temporally.

But surely explanation and prediction are *not* the same. Some event happens, and an analyst wants to explain it. In order to explain it completely, the analyst would have to know all the antecedent conditions and all the relevant chains of cause and effect that gave rise to the event. Such is, as the authors convincingly demonstrate, impossible. Even neoclassical economists deny the possibility of explanation in such a radical sense. The best that can be done is to come up with an explanation that makes the event more intelligible than it would be without that explanation. Prediction, on the other hand, as long as it is limited to what Hayek calls “pattern prediction,” is not only possible, it is a major part of standard Austrian analysis. For example, from the action axiom (a covering law) and scarcity (a pervasive antecedent condition), it is possible to predict that there will, ceteris paribus, always be an inverse relationship between own price and quantity demanded. The “pattern” is the inverse relationship. Precise quantitative prediction of a particular instance of that pattern is, an Austrian economist would say, impossible because of the impossibility of being certain the ceteris paribus conditions hold.

The authors' discussion is at best a confusing and misleading exposition of the standard Austrian critique of neoclassical methodology. Austrians hold that explanation and prediction in economics are not, and cannot be, the same as what positivists assert they are in the natural sciences.

The chapter concludes with a section entitled "Relationship between Static and Dynamic Subjectivism" which, on its own, is clear and informative. Unfortunately, it seems to be unrelated to the rest of the chapter. According to this section,

> The static subjectivist view is that four factors determine choice: (1) the ordinal ranking of goals or wants, (2) knowledge of the relationship between courses of action . . . and want satisfaction, (3) knowledge of prices, and (4) knowledge of the income constraint (p. 28).

This corroborates my earlier interpretation of static subjectivism. It is the neoclassical approach to value theory.

Dynamic subjectivism, in addition to applying a more thoroughgoing subjectivist interpretation to the foregoing four factors, recognizes a fifth: "What an individual decides to do depends, in large part, on what he expects other individuals to do" (p. 29). Since such expectations are never held with certainty, good models of choice cannot be deterministic. This corroborates my earlier suspicion regarding dynamic subjectivism. It is the subjectivism of standard Austrian economics.

Chapter 3, "Knowledge and Decisions," is fairly clear and helpful. It points out that the knowledge problem in economics is never the acquisition of a fixed stock of information. There is in human action a continual increase in knowledge. There is no equilibrium stock of knowledge. Knowledge is divided up and distributed unequally among economic actors; because different people face different problem settings, different people will not ultimately learn the same things. Knowledge is communicated between transactors by prices (both equilibrium and disequilibrium prices) and by institutions. All of this is standard Austrian (mainly Hayekian) fare, and the authors exposit it well.

Their best exposition comes in the chapter's last section, "Subjectivism as Weighing of Alternatives." It summarizes many of the points made by Buchanan in *Cost and Choice* on the subjective nature of costs, pointing out that Marshall was wrong when he claimed that demand is subjective and cost is objective.

Both blades of the Marshallian "scissors" are subjective categories. The authors also construct a helpful schematic to illustrate "a thoroughly subjectivist view of value theory" (p. 46). They carefully distinguish (1) between commodities and projected want satisfaction and (2) between projected and realized want satisfaction, pointing out that in the static neoclassical approach to value theory, all three of these collapse into one.

I have only two complaints about chapter 3. The authors correctly say that learning in the real word is neither deterministic nor random, but something in between. They note that in the "in-between" view, the analyst asserts a priori that learning does take place, and then they say:

> Second, given the overall context of a change in knowledge, we can show how the move from framework 1 (F1) to framework 2 (F2) is intelligible, in the sense that a metatheory can be constructed in which a loose dependency on F1 is shown. F2 is more likely (though not necessarily highly likely or probable) given F1 than it would be given some other $F1_9$. On the other hand, we might say that, given F1, many possible alternative frameworks can be ruled out and that only a class of subsequent frameworks (which includes F2) can be determined (p. 38).

All that seems to mean is that perceptions tomorrow are, affected by perceptions today, but to different degrees depending on the circumstances at hand. Why the authors choose to dress up this obvious point in the formalistic garb of mathematical symbols and language is a puzzle. As Austrians, they surely realize that no analytical progress is ever made by converting plain English into mathematics which then must be restated in English to be comprehended. Could it be that the authors' intent here is merely to appeal to the prejudices of possible neoclassical readers?

My second complaint in this chapter is a recurring one throughout the book. In discussing Hayek's notion of institutions as routine courses of action that embody efficient adaptations to the environment, they point out that one problem with such a "Darwinian" view is that "[s]ome clearly inferior routines must be maintained in order to permit those clearly superior (but dependent) to exist" (p. 40). It would have been most helpful if they could have illustrated this proposition. No example is given.

The point is, in the abstract, interesting and (I think) novel. Its validity and usefulness are another matter. Only a good example from the world of economics would convince me of its value. I shall refer to other instances of missing or unhelpful examples in other chapters.

Chapters 4 and 5 present the theoretical core of the authors' original contribution. They are key chapters, for if the analysis therein fails, there is nothing to their original contribution; and, inasmuch as the authors' exposition of what is standard Austrian analysis is, at least until chapter 7, so confusing, most of the book then fails.

Chapter 4 begins with a very good exposition of what is wrong with the standard uses of time in neoclassical models. It would have been better, I think, to refer to the static uses of time as "neoclassical time" rather than "Newtonian time," for the latter suggests that more is at stake than the misuse of time in economic analysis. But that is a quibble. The last subsection of their discussion of Newtonian time, "The Measurement of Time" (pp. 58–59), is dressed up in mathematical garb and is very difficult to understand; but it adds nothing to their argument, so little is lost.

The meat of the chapter is found in pages 59–67. Here it is explained that real time—or the authors' "dynamic conception of time"—is time as it is experienced by the economic actors whose plans and actions are what economics is all about. For every economic actor, each present moment is connected to the past by memory and to the future by expectation. The future can never be known with certainty; it can only be anticipated. Moreover, the anticipation cannot be in the form of a complete list of all possible future events weighted by known probabilities of occurrence. The probabilities themselves are unknowable, and any list must be incomplete.

Consider the following statement (which is not a direct quote from the text): "A transactor's expectations of the future are changed as his present knowledge changes." The statement seems to be correct. However, suppose that the change in his present knowledge is merely that what had hitherto been only expected is now fact (that is, an expectation is ratified by experience). Would that change in present knowledge necessarily alter the transactor's already existing expectations concerning that which has not already happened? For example, suppose that yesterday I expected the annual inflation rate for the coming two days to be 10 percent, and that today's inflation rate *is* 10

percent. Would my expectation of tomorrow's inflation rate necessarily change? I do not see why it must. I do not see how the authors can conclude that the passage of time *necessarily* changes expectations, and thus *necessarily* always changes the plans and actions of economic agents. Yet a very important part of what the authors later claim is their original contribution—their idea of unavoidable endogenously generated forces which preclude equilibrium—rests on that conclusion.

Consider the following direct quotes from the text:

> As we contemplate a course of action and project its consequences, we [must?] continually refine and refocus our tentative plans (p. 63).
>
> In the process of acting . . . the individual experiences things. These experiences are novel if only because he approaches the world from subjective standpoints [necessarily?] continually change by the memory of what has been occurring (p. 63).
>
> [G]rowth in the stock of experience [necessarily?] leads, via growth in the stock of knowledge, to alterations in both memory and expectations (p. 64).
>
> Real time is important because in the course of planning and acting the individual acquires new [necessarily unanticipated?] experiences. These new experiences then [must?] give rise, in a non-deterministic way, to new knowledge. On the basis of this new knowledge, the individual [necessarily?] changes his future plans and actions. Thus the economic system is propelled by purely endogenous [and necessarily disequilibrating?] forces (p. 64).

If each of the bracketed questions I inserted in these quotes is answered in the negative, the quotes are reasonable and can be used quite effectively in the argument against the standard neoclassical treatment of time. In some passages this is what the authors do. However, the authors also seem strongly to suggest that all of the bracketed questions should be answered in the affirmative. And on those grounds, they later seem to assert, there is no tendency to equilibrium in real world markets.

In chapter 5, “Uncertainty in Equilibrium,” the authors demonstrate that equilibrium in the standard neoclassical sense (Walrasian general equilibrium as formalized by Arrow and Debreu, as well as Marshallian partial equilibrium) is logically flawed and totally irrelevant to any real world economy. For that they deserve applause. However, from time to time—although it is hard to be sure—the authors also seem to suggest that *any* concept of equilibrium must be logically flawed. They seem to flirt with the adoption of the extreme view of Shackle on equilibrium—namely there is no reason to think that there exist any systematic tendencies toward coordination or equilibrium in real world economies.

They do not adopt that view wholeheartedly for, as they correctly say, “some idea of equilibrium is important. Indeed it would be difficult to imagine a viable economics without one” (p. 71). Von Mises would replace “difficult” with “impossible” because, as he points out in *Human Action*, if there are no systematic tendencies toward coordination in an economy, an economist can derive no general principles of economics at all. Economists would be reduced to writing ex post descriptions of actual events on a one-by-one basis and methodological essays proclaiming that economic theory is impossible.

Moreover, the authors say that while “the endogeneity of uncertainty in real time” is incompatible with “standard notions of equilibrium” (p. 72),

> A suitably reformulated equilibrium construct can be consistent with our real-time framework, and can also be the analytical source of the uncertainty and endogenous changes that pervade market processes (p. 71).

They name their reformulated version of equilibrium “pattern coordination” (p. 72). So the authors apparently do not want, as Shackle does, to rule the whole idea of equilibrium out of order. They just want to do away with “standard notions” of equilibrium.

Hayekian equilibrium—plan coordination, the notion that most Austrians consider useful—is one of the standard notions to be done away with. Consider the following quotes taken from subsections “Equilibrium as Exact Coordination” and “Inadequacy of Exact Coordination,” respectively:

> Austrians generally follow Hayek in thinking of

> equilibrium in terms of compatibility of individual plans (p. 80).
>
> Hayek's avowed intention in developing his concept of equilibrium as the consistency of individual plans was to marry time and equilibrium. Since plans are forward-looking, he reasoned that plan coordination must entail time. Unfortunately, he did not fully understand the distinction between the Newtonian and real-time constructs. Hayekian equilibrium incorporated only Newtonian time (p. 81).

I am aware of nothing in Hayek's work that even remotely suggests that he ever treated time as it is treated in the standard neoclassical models. Hayek was always mindful that it is what people do and learn during the passage of time, not the passage of time itself, that matters. Hayek has never been guilty of the mathematical abuse of time customarily found in neoclassical analyses.

Remember, the authors' whole idea of "real time" is that the present is connected to the past by memory and to the future by anticipation. As time goes by, expectations are confirmed or falsified, and "memory swells." Thus each individual continually adopts a new knowledge perspective from which to view the unknowable, but not unimaginable, future. Time is not a mathematical variable; it is experienced by each individual as a flow of events. Hayek has always treated time in this way. His notion of plan coordination is based on this view of time.

For Hayek, however, the constantly changing perspective with which transactors view the future—the process of real learning—does not mean that those transactors constantly must change their future plans and actions. If expectations are confirmed, there is nothing in the swelled memory of the changing perspective to force plans and actions to change. Indeed, the process of approaching plan coordination involves the gradual changing of expectations and perceptions until mutually consistent plans are formulated. When that happens, transactors will no longer learn anything that forces them to change their expectations, plans, and actions. That is Hayek's plan coordination.

There is a second, closely related, Hayekian notion—pattern prediction—involved in the authors' exposition. Hayek's point here is simply that economic science can never generate precise quantitative predictions of future events. Although complete

detailed descriptions of future events are beyond the reach of economics, the prediction of important qualitative, common characteristics of a class of event is possible. For example, economics can make the prediction that effective price ceilings will all share a common (typical) feature—they will all cause shortages. The detailed quantitative description (the unique attributes) of any specific future instance of effective price ceilings cannot be predicted.

The authors sometimes seem to recognize that Hayek's notion of pattern prediction is consistent with their reformulation of the idea of equilibrium, but sometimes they do not. In chapter 4, they say that Hayek's pattern prediction "echo" their insight that "[t]heories of complex phenomena can be expected to predict only the overall pattern of outcomes . . . rather than the exact outcome" (p. 66). Yet in chapter 5 they assert that:

> The inadequacy of exact Hayekian equilibrium for the analysis of processes in real time means that we are faced with two alternatives: either (1) revise the equilibrium construct so as to incorporate time and uncertainty, or (2) abandon equilibrium altogether. . . .
>
> The only feasible alternative is to revise our notion of equilibrium. . . . We propose . . . pattern coordination. This makes use of both the original Hayekian "compatibility of plans" and the distinction between typical and unique aspects of future events. The plans of individuals are in a pattern equilibrium if they are coordinated with respect to their typical features, even if their unique aspects fail to mesh (p. 85).

For the record, see what Hayek has to say about equilibrium. In his 1968 essay "Competition as a Discovery Procedure" (reprinted in *New Studies in Philosophy*; *Politics, Economics and the History of Ideas*, University of Chicago Press, 1978), Hayek states that the capacity of the theory of competition:

> [T]o predict is necessarily limited to predicting the kind of pattern, or the abstract character of the order that will form itself, but does not extend to the prediction of particular facts (p. 181).

> While an economic equilibrium never really exists, there is some justification for asserting that the kind of order of which our theory describes an ideal type is approached in a high degree.
>
> This order manifests itself in the first instance in the circumstance that the expectations of transactions to be effected with other members of society, on which the plans of all the several economic subjects are based, can mostly be realized (p. 184).

I fail to see how this notion of equilibrium is "inadequate for the analysis of processes in real time."

To get a handle on what the authors have in mind, one has to understand the force of their notion of endogenously generated changing knowledge. Their position is that "exact equilibrium," even Hayek's plan coordination, is impossible because the market process necessarily always generates unexpected knowledge which must cause transactors constantly to change their plans. No equilibrium set of plans (plans that, in the absence of shocks, would not be revised) can be formulated because transactors are necessarily constantly bombarded with endogenous shocks to which they must constantly adapt.

This is certainly an important idea. One naturally hopes that the authors will explain this point with careful argument and good examples which make it clear and convincing. But they do no such thing. The point is illustrated by two scenarios having little to do with the world of economics, and these illustrations are taken as sufficient argument to establish the point.

The first scenario is Keynes's beauty contest—which Keynes originally used to illustrate a point concerning the stock market.

> A hundred photographs are reproduced in a newspaper. Each contestant must choose the six prettiest or handsomest faces. The winner will be that contestant whose choices most closely approximate those of "average opinion." The goal of each contestant is therefore not to choose the six most attractive to him or her . . . , or even to guess what average opinion believes to be the most attractive. . . . Rather, the object must be to guess what average opinion believes that average opinion will choose (pp. 72–73).

> [B]ecause the individual is making predictions of predictions rather than of tastes, resource availability, and so forth, the relevant information will be what others are predicting. Therefore, knowledge gained over time by market participants will necessarily affect the object of each agent's prediction. These considerations enable us to conclude that the very activity designed to cope with uncertainty (i.e., the acquisition of knowledge) is responsible for its continued existence (p. 74).

I think their conclusion is not sufficiently supported by the example. It is instructive that the illustration does not come from the usual world of economics. In typical market settings (not the stock market), the relevant pattern predictions that agents must make do concern "tastes, resource availability, and so forth." The only market setting I can think of wherein "predictions of predictions" are crucial is the Cournot oligopoly model. The authors referred to that model briefly on pp. 61–62 when discussing real time and promised that a "similar example" would be used later to discuss dynamic uncertainty. The "similar example" offered is the beauty contest. I infer from this that they, too, could not come up with anything more germane to the customary concerns of economists.

Moreover, in the beauty contest, the ends of the contestants are mutually inconsistent. Each contestant wishes to win, but there can be only one winner. It is a zero-sum game. Most market interactions, on the other hand, are positive-sum games. One must be careful to avoid coming to strong general conclusions regarding the competitive market process on the basis of examples of zero-sum games. Yet the authors do precisely that. I will not be convinced "that the very activity designed to cope with uncertainty is responsible for its continued existence" in the competitive market process until the authors either come up with an effective a priori argument or many pertinent examples. They have done neither.

The second scenario (also a zero-sum game) is Morgenstern's Holmes-Moriarity story, which, as the authors say, is worth quoting in full. (Curiously, the authors give a better example, one from the world of economics, illustrating the point of the Holmes-Moriarity story in a footnote.)

> Sherlock Holmes, pursued by his opponent, Moriarity, leaves London for Dover. The train stops

> at a station on the way, and he alights there rather than travelling on to Dover. He has seen Moriarity at the railway station, recognizes that he is very clever and expects that Moriarity will take a faster special train in order to catch him in Dover. Holmes' anticipation turns out to be correct. But what if Moriarity had been still more clever, had estimated Holmes' mental abilities and had foreseen his actions accordingly? Then obviously he would have travelled to the intermediate station. Holmes, again, would have had to calculate that and he himself would have decided to go on to Dover. Whereupon, Moriarity would have "reacted" differently. Because of so much thinking they might not have been able to act at all or the intellectually weaker of the two would have surrendered in the Victoria Station, since the whole flight would have become unnecessary (p. 84).

This example shows that when *A* and *B* are adversaries, when *A*'s plan depends on *B*'s plan, and when both *A* and *B* have perfect foresight concerning the plans of the other, no stable set of plans can be formulated. There is no process by which equilibrium can be established. True enough, but largely irrelevant to the issue at hand. Surely, the authors do not mean to imply that any form of Hayekian equilibrium is precluded by such an example. Perfect foresight has never been a part of any Hayekian analysis of which I am aware. The conclusion the authors reach from the Holmes-Moriarity story is that:

> [I]mperfect foresight is a necessary, although not sufficient, condition for a process to result in an equilibrium. This equilibrium cannot, however, be a position of exact coordination. A process in which there must be errors cannot, except by chance, culminate in an errorless equilibrium (p. 85).

How does one know that there "must be" errors in market processes? Presumably the beauty contest was to have convinced people of that. At least now people know that in the view of the authors, "exact coordination" is "errorless equilibrium." From the rest of the chapter, one knows, that "errorless" here means formulated on exactly correct predictions of all typical and unique features of future actions. But since Hayekian equilibrium

notions are not "errorless" in that sense, the reader is forced to the conclusion that "pattern coordination" is merely standard Austrian coordination correctly understood, or it is a well-disguised denial of any meaningful coordination at all.

It is difficult to tell which of those two options characterizes the authors' "pattern coordination" because they never really do a clear job of explaining what they mean. The idea fails for want of instructive and clear illustrations. The only example offered to explain what this key notion really means is, just like the beauty contest and the Holmes-Moriarity story, unrelated to the world of economics.

Pattern coordination, they tell us, is when future events are coordinated in their typical features but not in their unique features. They explain what they mean by asking the reader to consider the case of two professors working on a jointly authored book. The professors achieve pattern coordination of their plans when they know when they each will be available for joint discussions of their project. The unique features of these future events (joint discussions)—the actual details of who will say what and when he will say it—are uncoordinated. The knowledge necessary to achieve *ex ante* coordination of the unique features is unobtainable.

Try as I may, I cannot, from this example, see that pattern coordination is anything new at all. I know of no Austrian—certainly not von Mises, Hayek, or Kirzner—who ever maintained that plan coordination required coordination of all the unique features of future events. The content of "unique features" suggested by the authors' example is irrelevant to any sort of plan coordination. It is even irrelevant to many notions of neoclassical equilibrium. It seems to me that the authors, by misspecifying the requirements of "standard" notions of equilibrium, have trapped themselves into thinking that a whole new idea of coordination is needed to save a viable economics. In straining to differentiate "pattern coordination" from Hayekian coordination, they have led themselves toward the nihilistic views of Shackle that no viable economics is possible.

Chapter 6, "Competition and Discovery," begins the "Applications" half of the book. Inasmuch as I have always found that the examination of applications is the surest route to understanding points of theory, I had high hopes for the final five chapters of the book. And I was not totally disappointed. There is much that is excellent in chapter 6. The authors' present an effective exposition of the deficiencies of perfect competition

in “A Parable on Competition,” which likens perfect competition to a sports contest wherein the judges insist in repeated replays until the foreordained “correct” outcomes emerge. Their explanation of the logical and practical superiority of defining “competition” as rivalry rather than a state of perfectly competitive equilibrium is as good as I have seen. Their insistence that good economic analysis requires competition to be analyzed as a process rather than as an equilibrium state should be at least credible to all but the most closed-minded neoclassical readers. Of course, the sports contest analogy, like all analogies, is not exact. Inasmuch as there is only one winner in a sports contest, such contests are zero-sum games. While some features of interfirm rivalry may be characterized as a zero-sum game, the voluntary exchange basis of most of the competitive market process makes it a positive-sum game. In perfect competition, however, there is no rivalry at all. Perfect competition is in no sense a zero-sum game.

The section “Knowledge and Competition” examines the “five general characteristics of knowledge with which a Hayekian view of competition is concerned” (p. 104). The authors do a superb job of spinning out the implications of the fact that the relevant knowledge is sometimes private, often consists of information of temporary but crucial significance, is frequently tacit, and is often the source of surprise. Moreover, much of the relevant knowledge is communicated by nonprice signals such as evolved rules and customs.

The best section is “Process Theories and Normative Economics.” I especially liked the discussion of the relationship between neoclassical general equilibrium theory and Adam Smith. The beliefs that modern neoclassical theory has identified the necessary conditions for the validity of Smith’s laissez-faire conclusions and that those necessary conditions do not exist in the modern world are dead wrong. Adam Smith’s views were based upon his process theory of competition. His laissez-faire conclusions in no way depend on the conditions of perfectly competitive equilibrium. They rest on the key insight that unhampered market processes are the best means available for the discovery and correction of economic error. Here the authors do an excellent job of debunking.

However, chapter 6 is not without its faults. And those faults are tied to the authors’ notion of “pattern coordination.” First, the authors reiterate their assertion that Hayek had a faulty notion of equilibrium which he later discarded in favor of a

better notion that resembles the authors' pattern coordination. Here, at least, the reader gets a better idea of what they mean:

> Hayek originally defined as an equilibrium a situation in which there is both *ex ante* plan consistency, and no information disruptive of plans that agents are bound to learn in the course of executing their plans. [In chapter 5, the authors characterize this as "exact equilibrium."] Exogenous disturbances might occur before these plans are executed, and upset the equilibrium. As long as agents did not themselves bring about these disturbances by the very execution of their plans, their plans were coordinated and consistent (p. 100).

The last sentence of the quotation is, of course, where the authors believe that they have made an original contribution—the notion of endogenous learning precluding "exact equilibrium."

Hayek's later (1968) view of equilibrium, the authors say,

> embodies endogenous learning and entrepreneurship. Moreover it captures that essential element of competition that is absent from alternative economic conceptualizations: the element of surprise or the unexpected (p. 102).

I have already explained why I did not think there was an early Hayek and a later Hayek on the question of equilibrium. My view is supported by the passages quoted earlier from Hayek's 1968 essay "Competition as a Discovery Procedure" concerning the nature and usefulness of equilibrium. Any apparent differences between an early and a later Hayek on the question of equilibrium are due to differences in the expositions of his unchanged view.

But here another issue emerges:

> In his work on entrepreneurship, Kirzner has consistently adhered to Hayek's early view. Yet by focusing on entrepreneurship, we can understand better the reasons that surely entered into Hayek's revised approach to competition, coordination, and equilibrium. The fundamental problem is that the

> "tendency to equilibrium" view does not take time seriously. The latter is, of course, as serious an internal criticism as one could level against a subjective analysis (p. 100).

The unmistakable implication is that Kirzner, of all people, does not take time seriously and so ignores the elements of surprise and the unexpected in his work on entrepreneurship. In so doing, the authors assert, Kirzner makes himself out to be a poor subjectivist. This suggestion is simply beyond comprehension. Surprise, the unexpected, and unanticipated learning are all parts of Kirzner's analysis. That "endogenous learning" makes any difference at all has not been demonstrated. Keynes's beauty contest, the only argument the authors offer to support their contrary position, proves nothing.

The second fault with chapter 6 lies with the authors' discussion of rent control to illustrate the superiority of their concept of pattern coordination.

> After effective controls are imposed, housing services will be *temporarily* [emphasis in original] in excess demand. Lessors and lessees cannot make their plans mesh. *Over time, however, the housing stock will deteriorate until housing services supplied satisfy observed demand at the controlled rental prices* [emphasis added]. Even with market excess demand eliminated, plans continue to be frustrated, however, for renters cannot bid higher prices for the higher-quality units that they prefer (p. 115).

Now, what the authors should mean by the underlined sentence is that as the housing stock deteriorates, at any fixed rent per dwelling unit, the price per unit of housing services in those units increases. The tenants in such dwellings do not pay lower prices per unit of housing services because of the rent control. The higher price per unit of housing services eliminates the excess demand for housing services *in those units*. But the excess demand for housing services in better-quality dwelling units is *not* eliminated. In no sense is the "market excess demand" for housing services eliminated. The authors' statement that deterioration of the housing stock eliminates the market excess demand for housing services is an example of poor expositional judgment in the pursuit of originality.

In that same pursuit the authors go on to outline all the

customary indirect effects of rent control—diminished mobility, growing demands for new controls such as condominium conversion restrictions, and so forth. That is all right, but they assert that only their analysis permits such insights to be gained. The truth is, of course, that such indirect effects of rent control have long been recognized even in neoclassical analysis.

There is much of value in chapter 7, "The Political Economy of Competition and Monopoly," which concerns such issues of law and economics as antitrust, pollution regulation, property rights, and deregulation. In fact, I think chapter 7 is excellent. Perhaps that is because nothing in it depends on the three dubious concepts of the theoretical chapters—pattern coordination, real time, and dynamic subjectivism. Any reasonably informed neoclassical or Austrian economist could read, understand, and benefit from chapter 7 without having read any of the rest of the book.

The chapter begins by pointing out that those who disapprove of the outcomes of the competitive market process without also disapproving of the process itself are logically inconsistent. Outcomes and the processes that produce them cannot be thought of as separate entities. "In objecting to market outcomes, one is in reality objecting to market processes" (p. 131). The authors note that among the outcomes frequently objected to by many who claim to approve of the market process are income and wealth distributions, various forms of market structure, and product differentiation. Some neoclassical economists characterize outcomes of which they disapprove as "market failures."

The authors do a splendid job of criticizing the standard neoclassical approaches to pollution regulation and antitrust policy on the same grounds that von Mises and Hayek used to criticize socialism in the socialist calculation debate—namely, the informational and calculational dilemma. The informational and calculational requirements of both pollution regulation (whether the command or "tax price" variety) and antitrust policy based on neoclassical notions of competition and monopoly cannot be met. Moreover, as Arrow pointed out in 1959, even in the neoclassical framework, except in equilibrium, all firms must be price searchers. The basic distinctions upon which U.S. antitrust policy is based are, therefore, meaningless.

The superiority of a process view of competition over the traditional static equilibrium view is well illustrated by the examples of deregulation of the airline and telecommunications

industries. In these instances, several predictions based on static analysis (for example, that small towns would lose airline service and that the average cost of home phone service would rise because of the loss of economies of scale) were clearly proven wrong by events. What actually happened after deregulation is, however, easily understood using a standard Austrian market process analysis.

The final section of the chapter, "Property Rights Theory of Monopoly," argues effectively that the nature and source of entitlements to market shares should replace downward-sloping demand curves and welfare loss triangles as the focus of analytical attention in antitrust. In other words, and I wish the authors had used these words, the focus of attention ought to be on the positive and normative analysis of "rent seeking." Austrians and a good many neoclassical economists have long understood that government favor is the only source of durable monopoly. The authors are remiss in failing, even briefly, to discuss the theory of rent seeking. Of course, the economics of rent seeking is usually not thought of as an Austrian innovation. It is usually associated with the public choice school.

There is one curiosity early in the last section of the chapter. There the authors assert:

> A monopoly right can encompass a great deal of economic activity or apply to a wide geographic area. . . . When monopolists holding market share or operating jointly in a territory or market cooperate, we call this a "cartel." Cartels are shared monopolies. There is thus no separate oligopoly theory (p. 149).

I think this is a non sequitur. Why should the analysis of shared monopolies preclude an oligopoly theory? More importantly, recall that the only obvious example from the world of economics that corresponds to Keynes's beauty contest is the Cournot oligopoly model. If there is no separate oligopoly theory, the authors lose their best illustration of endogenous uncertainty.

Chapter 8, written by Roger Garrison, is entitled "A Subjectivist Theory of a Capital-Using Economy." As its title suggests, it is about Austrian capital and interest theory. It is exceptionally well done. It is the only chapter in the book that gives von Mises the attention he deserves in any exposition of Austrian economics. A neoclassical economist who knows nothing about Austrian economics can learn a lot by reading this

chapter. The author patiently explains each concept as he introduces them. It is all here: a brief historical sketch of the development of Austrian capital theory; a clear statement of why it is a subjective theory; and precise explanations of the structure of production, the period of production, roundaboutness, capital heterogeneity, intertemporal coordination, and the time-preference theory of interest.

For Austrians, capital and interest theory is the basis of legitimate macroeconomic theorizing. Garrison explains the connections between the two. He then discusses the effects of changes in preferences for liquidity and leisure on the structure of production through entrepreneurial adaptations to those changes. Finally, he traces through the normal adaptations to changes of time-preference and points out that although there is likely to be entrepreneurial error in the process of adaptation to such changes, there is no reason to expect a "clustering of error." He thus sets the stage for chapter 9, which exposits the von Mises-Hayek monetary theory of the trade cycle.

In the last section of chapter 8, "Subjectivism Revisited," Garrison puts the Cambridge "reswitching" argument against Austrian capital theory to rest. He points out that because of the subjectivist definitions of period of production, roundaboutness, earlier and later investment programs, and original factors of production, the reswitching phenomenon implies nothing about Austrian capital theory. The Cambridge attribution of those categories to physical objects and techniques, rather than to the planning perspectives of decision makers, makes its critique irrelevant to the real world as well as to Austrian capital theory.

Chapter 9, "The Microanalytics of Money," discusses Menger's view of the evolution of money, the von Mises-Hayek monetary theory of the trade cycle, and rational expectations. The exposition is very good. Austrians and neoclassical economists alike will find much of interest in the chapter. Neoclassical economists can learn a lot here about the Austrian views of these matters, and Austrians can learn about Wainhouse's sophisticated econometric testing of the von Mises-Hayek model. Statistical evidence turns out to be consistent with six empirically testable hypotheses derived from that model.

I did get a scare when I read:

> In our analysis, we adopt Hayek's view of the cycle as a disequilibrium phenomenon. We restate his analysis, however, in terms of our own formulation

> of process theory. In particular, we argue that the distinction between typical and unique aspects of phenomena is especially useful in analyzing economic fluctuations (p. 199).

But it turns out that the authors never go beyond standard Austrian analysis. They use the words "typical" and "unique" on pp. 222–23, but in so doing they merely put standard Austrian analysis into slightly different words. There is no substantive difference between their exposition of their theory and standard Austrian theory of misdirection of resources, malinvestment, and clustering of entrepreneurial error.

Chapter 10, "Some Unresolved Problems," is the brief, final chapter of the book. In it the authors suggest three possible areas of research where the principles of the book might profitably be put to work: law and economics, the analysis of money, and the competitive market process. I agree that effort in these areas, especially the first and the third, could greatly benefit from the incorporation of the standard Austrian perspective. Unfortunately, there is little in this book that successfully promotes that incorporation.

In conclusion, I cannot recommend this book to either neoclassical or Austrian readers. A neoclassical reader cannot attain a clear understanding of the basic principles of Austrian economics from it. An Austrian reader will be bewildered by the authors' apparent inability to settle their own position on the question of the possibility of equilibrium or even the tendency to coordination that is central to any viable economics. It is sadly ironic that the authors, who have done so much to foster the Austrian revival, may have, in this atypical book, set it back. Austrians can take comfort in the knowledge that the damage is not irreparable.

The Economics of Time and Ignorance by Gerald P. O'Driscoll, Jr., and Mario J. Rizzo. Oxford and New York: Basil Blackwell Ltd., 1985.

Method versus Methodology: A Note on *The Ultimate Resource*

M.W. Sinnett

> Science appears but what in truth she is,
> Not as our glory and our absolute boast,
> But as succedaneum, and a prop
> To our infirmity. No officious slave
> Art thou of that false secondary power
> By which we multiply distinctions, then
> Deem that our boundaries are things
> That we perceive, and not that we have made.
>
> —William Wordsworth, "The Prelude"

In discussing the thought of Albert Einstein in the second course of his Gifford Lectures at Edinburgh, Professor Stanley L. Jaki draws an important distinction between the great physicist's method and his methodology. On the one hand, says Jaki, Einstein represented himself as an advocate of the "sensationism" of Ernst Mach, according to which view the existence of an objective cosmos underlying the subjective sensations of the physicist was expressly denied; whereas, on the other hand, the spectacular breakthrough represented by special (and later, general) relativity was the result of Einstein's conviction of the existence of a universal natural order, which was intelligible to man in a manner quite independent of his cultural or historical position.[1] Thus, the manner of Einstein's approach to reality (his method) was not at all consistent with his own reflection on the manner of his approach to reality (his methodology).

The possibility of such confusion as this is but one result of the fact emphasized by William James that the process of our consciousness is one thing and our critical reflection (through the vehicle of memory) on that process quite another.[2] Just as "systematic reflection on the consciousness is a late event in the biography of [a] philosopher," as Eric Voegelin observed,[3] so also, quite often, does method (the way people do things)

antedate methodology (their understanding of the way they do things), both in the biographies of particular scholars as well as in the histories of scholarly disciplines. The resulting possibilities for confusion are considerably augmented nowadays by the equivocation of these two terms, which is nearly universal in popular usage. One will hear a new instructional technique, for example, described as "an interesting new educational *methodology*."

Indeed, the so-called social sciences are particularly liable to such difficulties. A particularly instructive example is to be found in Julian L. Simon's book, *The Ultimate Resource*. The goals of this essay are to demonstrate the existence of a glaring inconsistency between Professor Simon's method and his methodology, and then to draw out several important implications of this situation. In the process readers will gain some acquaintance with the concrete problems which Simon addresses as well as with his approach to the, both matters being important and instructive in and of themselves. More specifically, one will find (1) that Simon's optimistic conclusions concerning world resources are entirely justified, (2) that his method (from the Austrian perspective) is correct and appropriate, but, (3) that in discussing various methods he has given credit for his success to a method that he does not actually employ, a method which, (4) had he actually put it into practice, would have produced only the most complete confusion.

The next section briefly indicates the concrete issues with which Simon is primarily concerned. It also presents Simon's methodology, that is, his own understanding of the method he has employed to achieve his results. The following three sections, show that his methodology does not match his method. This will be accomplished through the successive examination of three technical concepts central to Simon's effort: the concepts of "scarcity," "resource," and "finiteness." I hope that my discussion of these terms will have value, not only in clarifying understanding of Simon's important work, but also as a contribution to future discussion of world resources. The final section offers concluding remarks.

Issues and Methodology

Popular opinion has it that mineral resources are becoming increasingly scarce. This claim, in common parlance, is not simply an assertion of the economic character of mineral

resources,[4] in which case it would be entirely unobjectionable, but rather, the prediction of their impending exhaustion.[5] It is Simon's burden to refute this claim. (He also provides an illuminating analysis of world population growth and a survey of some of the rather irresponsible publicity techniques employed by proponents of population control. My purpose will be best served by restricting attention to Simon's discussion of resources —particularly mineral resources.) He begins his assault by arguing that the proper standard for the scarcity of a mineral resource is its price, or, even better, the ratio of its price to some other benchmark such as wage rate or consumer price index. Then, in discussing trends in such resource prices, he asks whether data from the past can serve as a basis for prediction of future conditions. In the process of providing an affirmative answer, Simon says:

> The question facing us is a problem in scientific generalization. A good general principle is that you should generalize from your data if you can reasonably regard them as a fair sample of the universe about which you wish to generalize. It is prediction that concerns us, however, and prediction is not quite the same as generalization. Prediction is a special type of generalization, a generalization from past to future. Prediction is always a leap of faith; *there is no scientific guarantee that the sun will come up tomorrow* (emphasis added). [6]

The "fair sample of the universe" he seeks to generalize from consists of the price trends he has been discussing, which (like the rising and the setting of the sun), it is implied, constitute the objective truth, the "truth with the bark on it," the unshakeable rock upon which he proposes to build his scientific house. Later, in a systematic discussion of the concept of "finiteness," to which I shall have occasion to return, Simon remarks that "scientific subjects [such as economics, he implies here] are empirical rather than definitional, as twentieth-century philosophers have been at great pains to emphasize." He goes on, "Mathematics [unlike economics] is not a science in the ordinary sense because it does not deal with facts other than the stuff of mathematics itself" (p. 48). The point is that Simon regards his discipline as an empirical natural science. He understands the "facts" of his subject to be the particular configurations (resource prices per

unit wage rate, say) that he has identified in the marketplace, and his goal to be the construction of "scientific generalizations" based upon them.

In fact, however, despite Simon's confident suggestion of consensus, there remains considerable disagreement among "twentieth-century philosophers" as to the nature of the "empirical" natural sciences and even as to whether or not the natural sciences can be described as "empirical" in any meaningful way. Certainly, it poses no difficulty to find serious philosophers of science who would attach little value to the sort of naive inductive method Simon here attributes to natural scientists.[7]

On the other hand, there is no question that practicing members of the scientific community have long maintained that their method *is* this naive empiricism and have "urged the representatives of other disciplines to imitate [it]," with the result that "many social scientists are still trying to imitate what they wrongly believe to be the methods of the natural sciences."[8] The situation presented by Simon's work, however, is slightly more complicated. For, as I shall now proceed to argue, he does not actually "imitate . . . the methods of the natural sciences." He merely says that he does. In the course of this discussion I employ the three phrases ("scarcity," "resource," and "finiteness") mentioned in the introduction. One must now carefully inquire as to Simon's understanding of these terms. In so doing one will find that Simon's *method*—as opposed to his *methodology*—is unobjectionable from an Austrian perspective.

Scarcity

The crucial issue may be revealed by asking where Simon's analysis of resource supply begins. If one agrees with him that his is an empirical method, then one must be able to argue that his "data" represents a bare-handed grasp of reality; in other words, that it is comprised of "facts" which are "other than the stuff of [economics] itself." This, however, is clearly not true. His consideration of the data is preceded by his examination of "an unexciting but crucial matter, the *definition* of 'scarcity'" (p. 17) (emphasis added). He goes on to say:

> Upon reflection perhaps you will agree that a complete absence of the material will *not* be a sign of scarcity. We will not reach up to the shelf and

> suddenly find that it is completely bare. It is obvious that the scarcity of any raw material would only gradually increase. Long before the shelf would be bare, individuals and firms, the latter operating purely out of the self-interested drive to make future profits, would be taking steps to hoard supplies for future resale so that the shelf would never be completely bare. Of course the price of the hoarded material would be high, but there still would be some quantities to be found at some price, just as there always has been some small amount of food for sale even in the midst of the very worst famines.
>
> The preceding observation points to a key sign of what we generally mean by scarcity: a price that has persistently risen. More generally, cost and price . . . will be our basic measure of scarcity.

It is only at this point, *having already decided what he is looking for*, that Simon turns to an examination of the data and concludes, inescapably it seems, that "raw materials have been getting increasingly available—less scarce—relative to the most important element of life, human work time" (p. 25). Now, Simon's conclusion that the resource future is increasingly bright relies for its validity on his data, that is, on the trends in resource price he quotes. Readers are entitled, however, to reject his data and hence his conclusion, unless he can persuade them to accept his definition of "scarcity," which he does, of course, very convincingly. How does he do this? By a further appeal to market data? Not at all. He asks, instead, that one *reflect* on the actions and motivations of people in the marketplace. Consider again some of the language with which he makes his appeal:

> Long before the shelf would be bare, individuals and firms, the latter operating purely out of the self-interested drive to make future profits, would be taking steps to hoard supplies for future resale so that the shelf would never be completely bare.

He is arguing from the principles of praxeology—the science of human action.[9] The point is that Simon has not only reasoned *from* his "data," he has also reasoned *to* his data. His "facts" are themselves the result of economic theory. He has not simply discovered them or observed them; *he has created them*.[10]

It is instructive to consider here an analogy which Simon employs to clarify his line of argument, but in which, I submit, the same methodological confusion persists. He likens himself to a fellow making observations of the level of water in a communal tank. This fellow sees people steadily consuming, but not replenishing the water supply; he is accordingly surprised when each of his observations finds the water level higher than before. Simon asks of this situation:

> Would not a prudent person, after a long train of rises in the water level, conclude that perhaps the process may continue—and that it therefore makes sense to seek reasonable explanations? . . . Whatever the real explanation, it makes sense to look for the cause of this apparent miracle, rather than cling to a simple-minded fixed-resources theory and assert that it cannot continue (p. 23).

It is Simon's argument, and of course one ought to agree with him, that the rise in the water's level is analogous to the fall in the price of a resource. Therefore, as one might expect, he goes on to suggest that:

> The fall in the costs of natural resources decade after decade, and century after century, should shake us free from the idea that scarcity must increase *sometime*. Instead, it should point us toward trying to understand the way technological changes are induced by the demand for resources and the services they provide, and the way that such changes reduced scarcity in the past.

The crucial issue is that, while I agree that the two processes—the measurement of the water's level and the computation of a resource's price per unit work time—are analogous, they are not methodologically equivalent. The first is the action of an empiricist properly so called, requiring no a priori understanding whatsoever; whereas the second, as already shown, is the theoretically informed action of an economist. Indeed, Simon's ability to present his analogy at all is contingent on his persuading readers that the two quantities measured—water level and resource price per unit work time—actually bear some relation to one another. One is therefore reduced, once again, to his argument for his definition of "scarcity."

In the passages just quoted, one encounters a further difficulty. In both cases, it is suggested that the observation of persistently recurring configurations ("a long train of rises in the water level" and "the fall in the costs of natural resources decade after decade, and century after century") comes first and persuades (or should persuade) readers to seek out a suitable mechanism to explain them ("to look for the cause of this apparent miracle" and "[to try] to understand the way technological changes are induced by the demand for resources and the services they provide"). This suggestion of an advance from knowledge of stable or recurrent configurations to the elucidation of an explanatory mechanism evokes the global procedure of a natural scientist, but it cannot be the procedure of an economist and, in particular, it is not the procedure which Simon has employed himself. For, he cannot have drawn any conclusions from his price data until he knew the price of a resource to be the proper measure of its scarcity. He cannot have known *that*, however, prior to understanding the action of people in the face of rising resource prices. That is, in what constitutes an exact reversal of the normal procedure of a natural scientist, Simon has advanced from his knowledge of market process (or mechanism) to a correct identification of stable market configuration.[11]

A still more subtle distinction to be made between the methods of the natural and social sciences is nicely illustrated by Simon's effort. This lies in the fact that, contrary perhaps to popular perception, the natural scientist endeavors to "explain the known in terms of the unknown."[12] By way of illustration, an organic chemist will elucidate his familiar experience of various chemical reactions in terms of reaction mechanisms which will draw heavily from existing formulations, or he will elicit new formulations in physical chemistry and theoretical physics which will be relatively less familiar or even somewhat unintelligible to him. Social scientists, on the other hand, are confronted with problems of such immense complexity as to "require a reversal of what has been described as the standard procedure of [natural science]; [they] have to proceed in [their] deductions, not from the hypothetical or unknown to the known and observable, but—as used to be thought to be the normal procedure [in natural science]—from the familiar to the unknown."[13] In particular, Simon's discoveries, and arguments for the relevance, of stable configurations in the marketplace have flowed from his knowledge of the characteristics of human

conduct of which he has a relatively more intimate knowledge.

It is in this light that the perplexity of the fellow at the water tank seems somewhat misplaced. Simon seems to require that this poor fellow oppose his intuitive understanding with a somewhat paradoxical and logically untenable induction;[14] whereas, it is in fact Simon's own praxeological analysis that persuades his readers not only that his price trends *are* stable configurations, but that readers should have expected this to be true from the very beginning. One is confronted, after all, not with the mysterious machinations of an inanimate universe, but with the purposeful conduct of human beings within the "life-world" (*Lebenswelt*).[15] (One also encounters here the issue of "teleology," to which I shall return.) Unless one expects some radical transformation of the nature of humankind, therefore, one may safely dispense with Simon's leap of faith. Herein lies the advantage of treating man anthropomorphically.[16]

Thus, by way of summary, one finds that Simon's praxeological analysis of the meaning of "scarcity" yields conclusions in which one can have great confidence, while, at the same time, rendering rather problematic his methodological claim of empiricism.

Resources

It is manifestly of the greatest importance, in such a discussion as this, that there should be agreement as to the meaning of "resource." Despite the fact, moreover, that there seems to be no explicit definition of this word in *The Ultimate Resource*, there does seem to prevail among all parties a general understanding as to its meaning. How has this understanding been effected? Why is it that copper, say, is regarded as a mineral "resource"—and no questions asked? In consideration of its color? Or its specific gravity? Or perhaps its spectral properties? Is there—in short—some empirical procedure that will yield an objective classification of copper as a "resource"? Hardly. In point of fact, as Hayek has written,

> [S]uch things as tools, food, medicine, weapons, words, sentences, communications, . . . acts of production [and, I may add, resources], or any one particular instance of any of these . . . are all instances of what are sometimes called "teleological concepts," that is, they can be defined only by

> indicating relations between three terms: a purpose, somebody who holds that purpose, and an object which that person thinks to be a suitable means for that purpose. If we wish, we could say that all these objects are defined not in terms of their "real" properties but in terms of opinions people hold about them.[17]

And, of course, one understands the "opinions people hold" about the objects of their action through knowledge of their action itself. Simon's last hope for an empirical understanding of "resource," therefore, is that it may prove possible to assign some objective meaning to one's observations of people's action. Alas, the hope is in vain. For, as Hayek continues:

> [I]n discussing what we regard as other people's conscious actions, we invariably interpret their action on the analogy of our own mind: that is, . . . we group their actions, and the objects of their actions, into classes or categories which we know solely from the knowledge of our own mind. We assume that the idea of a purpose or a tool, a weapon or food, is common to them with us, just as we assume that they can see the difference between different colors or shapes as well as we. We thus always supplement what we actually see of another person's action by projecting into that person a system of classification of objects which we know, not from observing other people, but because it is in terms of these classes that we think ourselves.[18]

This is not to say that such knowledge as this is divorced from our experience of the external world (which assertion would contradict the results of the previous section). It is in fact Hayek himself who has elsewhere asserted that such knowledge as this "constitute[s] the truly empirical factor in the social sciences."[19] It is simply that such knowledge as this—knowledge of "the relations between men and things or the relations between man and man"—is qualitatively different from knowledge of "the relations between things."[20] The latter may be understood as "empirical" in the sense in which Simon has employed the term; while the former, though referred to by Hayek as being "empirical," may perhaps be better described as "intersubjective." It is a part, not of one's knowledge of the world

of objects standing over against one, but of one's "lived-experience" (*Erlebnis*).[21] Thus, while people may continue to locate the basis of economic science in their ("lived") experience, and hence to regard it as "empirical" (in the intersubjective sense), it remains true that people are very far indeed from the empirical method Simon claims to have borrowed from natural science.

Once again, however, this claim is not consistent with Simon's practice. For he notes himself that in understanding the availability of a resource, the crucial consideration is not the supply of a particular mineral, but one's ability to achieve particular goals:

> What is relevant to use is not whether we can find any lead in existing mines but whether we can have the services of lead batteries at a reasonable price; it does not matter to us whether this is accomplished by recycling lead, by making lead batteries last forever, or by replacing lead batteries with other contraptions (p. 49).

As suggested above, one is faced here with one's irredeemable inability to classify a substance as a resource without reference to those human purposes for the achievement of which somebody regards the material as a suitable means. This recognition by Simon of the relevance of "purpose" to his analysis clearly demonstrates the radical discontinuity between his actual praxeological method and his methodological claim of empiricism.

Furthermore, in recognizing the teleological dimension of his undertaking, Simon has implicitly denied the applicability of the techniques of natural science generally speaking (that is, over and above the more specific issues of what one may or may not directly observe). For not only, as argued above, are the sciences of human society *necessarily* teleological, *the sciences of nature cannot be*. Jaki has shown that the assumption, at various times in the history of science, of purchase immanent in the workings of nature has invariably led to a scientific blind alley. As in the case, he says, of the classical Greek philosophers, teleologists have "built ways to the ultimate in intelligibility, only to find themselves at the end of those ways."[22]

Finally, Simon has made it his purpose to remind readers—may it henceforth be shouted from the rooftops—that "the ultimate resource," the fountainhead of all other resource, is the

human imagination. In his introduction (pp. 9–10), he describes himself in 1969, in Washington, D.C., discussing with an Agency for International Development official a project intended to lower fertility rates in less developed countries.

> I arrived early for my appointment, so I strolled outside in the warm sunshine. Below the building's plaza I noticed a sign that said "Iwo Jima Highway." I remembered reading about a eulogy delivered by a Jewish chaplain over the dead on the battlefield at Iwo Jima, saying something like, "How many who would have been a Mozart or a Michelangelo or an Einstein have we buried here?" And then I thought, Have I gone crazy? What business do I have trying to help arrange it that fewer human beings will be born, each one of whom might be a Mozart or a Michelangelo or an Einstein—or simply a joy to his or her family and community, and a person who will enjoy life?

Is it possible that it is here, so far removed from the austere machinery of empirical science, that one at last finds the true beginning of Simon's analysis?

I have now carefully examined the conceptions of "scarcity" and "resource." Three results have emerged: first, that the problems with which readers are concerned properly demand a praxeological method for their solution; second, that Simon has in fact successfully undertaken such a praxeological analysis of these problems; and therefore, third, that he may be regarded as an empiricist (according to his own use of this term) in a Pickwickian sense only. Further confirmation of these results emerges in the following examination of the concept of "finiteness."

Finiteness

Simon seeks to deny that supplies of resources are finite, with which conclusion readers ought to agree. It is in the course of his analysis of this issue, as I noted earlier, that he claims his method is "empirical rather than definitional," with which one ought not to agree. In order to clearly locate the point of departure for this erroneous methodological claim, it will be necessary to follow the sequence of Simon's argument in some detail. It will become quickly apparent, once again, how crucial

is a proper understanding of the concepts of “scarcity” and “resource.”

Simon begins by suggesting that people are misled in using “finite” by the term’s own inherent ambiguity:

> The word “finite” originates in mathematics, in which context we all learn it as schoolchildren. But even in mathematics the word’s meaning is far from unambiguous. It can have two principle meanings, sometimes with an apparent contradiction between them. For example, the length of a one-inch line is finite in the sense that it is bounded at both ends. But the line within the endpoints contains an infinite number of points; these points cannot be counted, because they have no definite size. Therefore the number of points in that one-inch segment is not finite (p. 47).

But this is an error. In fact, there is only one criterion of finiteness employed in the example Simon provides, namely, if a positive real-valued quantity, or function, is finite, then one can display, among the positive integers, say, an upper bound. (The contrapositive, of course, is that if one cannot display an upper bound, then one cannot claim finiteness.) In the first case, he observes that the length, or “Lebesgue measure,” of the one-inch line is finite (since its value is a positive real number and there exists a plentiful supply of upper bounds) and, in the second case, that the number of elements, or “counting measure,” of the same set is infinite (since one cannot display an upper bound). [23] That which is different in these two cases is not the criterion of finiteness, but the definition of the “measure” of the set to which the criterion is applied: Lebesgue measure, in which case the criterion is satisfied, and counting measure, in which case the *same* criterion fails to be satisfied.

There is, moreover, no reason for “finite” to be any less applicable to a discussion of resources. Indeed, among other things, Simon says, “[A] reason that the term ‘finite’ is not meaningful [in a discussion of resources] is that we cannot say with any practical surety where the bounds of a relevant resource system lie, or even if there are any bounds” (p. 48). But, the inability to say “where the bounds of a relevant resource system lie” does not imply the meaningless or ambiguity of “finite” in such a context; it simply implies that the criterion of finiteness is not satisfied. This point may be reinforced by

considering a brief passage from a delightful afternote to chapter 3, entitled "A Dialogue on 'Finite'" (p. 51), where Simon writes:

> *PS* [*Peers Strawman*]: Finite means "limited."
> *HW* [*Happy Writer*]: What is the limit for, say, copper?
> *PS*: I don't know.
> *HW*: Then how can you be sure it is limited in quantity?

Precisely so. If Strawman cannot display an upper bound on the quantity of copper, much less on the ability to provide the services of copper, he cannot claim to have satisfied the criterion of finiteness. There is no ambiguity here: Strawman is unambiguously wrong.

Now, however, Simon seems to change his ground. He argues that ambiguities in discussions of resource supply have resulted from the different means of measuring resource supply to which the concept of finiteness has been applied (which, in the mathematical context, is essentially what I suggested above). There are, he says, two principal methods of making such measurements, the "technologic" and the "economic." The first of these, the technologic method, consists of the effort to determine the quantity of a particular mineral physically extant in the earth's crust, or, of what is slightly more sophisticated, the effort to determine the quantity of the material recoverable given certain assumptions about available technology. Having made such a determination, the technologist, by means by some extrapolation of current rates of usage, computes the "years of consumption" remaining.

But against this technologic method Simon favors the economic method, the attempt to predict the availability of a resource in the marketplace *at different price levels*. Since the price of a particular mineral will be affected by one's ability to achieve its services by other means, this economic method automatically takes into consideration countless possibilities of substitution of which people can have no personal knowledge. Under Simon's expert tutelage, moreover, this economic perspective reveals gaping holes in the technologic analysis. The technologist remains stubbornly unaware of the fact, that the availability of a resource is dependent on its market price, and *that the resource worth looking for will invariably be found*.

Indeed, the technologist's own estimates of the supply of a material is dependent on the willingness of various people to

search for it—which is to say, dependent on the demand for the mineral in the marketplace—which is to say, dependent on the price of the mineral. In any case, what is important is not how much of a particular mineral there is, but the extent to which, in some way or another, the services it performs can be provided at a given price. (To reinforce an earlier point, the foregoing analysis clearly reveals the methodological confusion in Simon's "water tank" analogy. This may now be described, using Simon's own terminology, as the confusion of the *technologic* measurement of the water's level in the tank with the *economic* computation of the water's price per unit work time.)

It is in continuing this argument for his economic method of measurement that Simon makes his "empirical rather than definitional" claim. The technologists' mistake, he says, is to have "define[d] the subject of discussion suitably, and sufficiently closely [via technologic measurement] so that [the supply of resources] can be counted." (p. 50), and hence, has the appearance of being finite. His response is to deny the applicability of such definitions to the subject matter by claiming that the proper method is one of empiricism.

That this response is an overreaction is demonstrated (as if any further demonstration is required) by Simon's restatement of his "economic" or "operational" definition of the quantity of a resource:

> A satisfactory *operational* definition of the quantity of a natural resource, or of the services we now get from it, is the only sort of definition that is of any use in policy decisions. The definition must tell us about the quantities of a resource (or of a particular service) that we can expect to receive in any particular year to come, at each particular price, conditional on other events that we might reasonably expect to know (such as use of the resource in prior years) (pp. 47–48).

Once again, I have no difficulty in agreeing with his definition and the conclusion he draws from it, namely, that the supplies of mineral resources are without bound. At the same time, I can see little use in his asserting the necessity of an "operational *definition* of the quantity of a natural resource," and then going on to argue, *on the same page*, that economics is "empirical rather than *definitional*." In reality, the technologist's problem is not that he "defines the subject of discussion," but that he does so

erroneously.

I return, therefore, to the first three of the four conclusions asserted in the introduction: (1) I have agreed with Simon's conclusion; (2) I have agreed with Simon's method; and (3) I have shown that his method is not what he says it is. Having now introduced the technologic measure of resource supply, I am in a position to establish my fourth conclusion.

Nothing can be more clear than that Simon's technologist adversaries have been led into error precisely by the practice of the empirical method Simon has (wrongly) claimed for himself. The scientist who insists on confronting these questions of resource supply *as a scientist* will proceed by making precisely those technologic measurements which, as Simon has phrased it, have so "muddle[d] public discussion and [brought] about wrongheaded policy decisions" (p. 47). Desiring, for example, to forecast the future availability of copper, he will begin by determining how much copper there is. Why should a good empiricist begin anywhere else? Having subsequently "observed" the rate at which this "finite" supply is being consumed, he will conclude that copper is becoming increasingly "scarce" and go on to forecast its imminent exhaustion. Notice again how crucial is a proper understanding of "scarcity" and "resource."

Again, the problem is not the presence of definitions, but the presence of definitions (and methods) that are inappropriate to the subject matter. There is a sense in which the technologist's problems stem from his having *not* "define[d] the subject of discussion suitably, and sufficiently closely." He will have missed all those considerations to which Simon will have been led by his praxeological analysis to attach the most significance. For example, although there will be more than one means of achieving the services of copper, most of these opportunities for substitution will lie beyond the technologist's knowledge, and even beyond his interest.[24] He will not see them because he did not begin by knowing that he should look for them. Also, since his effort fails to be graced by an economic theory that tells him to do so, there is no reason to expect him to consider the price of copper—much less, the price of copper per unit work time—much less still, decades (or centuries) long trends in the price of copper per unit work time.

Indeed, understanding himself to be a scientific empiricist, it is precisely the technologist who will insist that to admit such considerations into his analysis would be to impose abstract and artificial definitions on his subject matter. "Scientific subjects,"

he will gravely explain, “are empirical rather than definitional.” And precisely because he “disdains to make use of the models worked out for him by the theorists, he is almost certain to come to grief.”[25]

Thus I have used Simon’s critique of his technologist adversaries to establish my fourth conclusion. By simply glancing around at the innumerable technologic studies of resource supply, one sees how dismal the results could have been had Simon really put into practice the empirical method demanded by his methodology. (There remain many other starting points for the practical realization of Simon’s empirical methodology, one of which I shall now discuss.)

Conclusion

It is clear that Simon’s topic is an important one and my objections to his methodology notwithstanding, that his contribution to a proper understanding of these issues is extremely valuable. It remains, however, by way of conclusion, to show how important it is that a praxeological method be matched with a praxeological methodology.

But perhaps it is still unclear how a divergence between method and methodology is possible. How is it possible, it might still be asked, for an empirical methodology to be conjoined with a praxeological method? How is it possible for a single mind to do one thing and yet understand itself to be doing quite another? One may ask this question without doubting that what it refers to is characteristic of most of one’s thought throughout one’s life.

An adequate discussion of this general issue is beyond the scope of this brief review, but I can offer the following warning against what William James called the “psychologist’s fallacy.”[26] The foregoing references to Simon’s praxeological method will have brought to the attention of Austrian minds the complex of praxeology-as-a-method-consciously-chosen. They will have called to economists’ attention, that is, their own reflective knowledge of praxeology as they have learned it from the method and methodology of the great Austrian teachers. And it is in this form in which the praxeological method absolutely precludes an empirical methodology. The psychologist’s fallacy results when one projects one’s understanding of praxeology-as-a-method-consciously-chosen into Simon’s thought, where it does not actually exist. In fact, Simon’s praxeological knowledge must be said to exist, not as the result of a-method-consciously-chosen,

not as something of which he is methodologically self-aware, but as a part of his "tacit"[27] or "common-sense"[28] knowledge. As I have shown, moreover, Simon's possession of praxeology as "tacit knowledge" has not prevented him from deploying it with extraordinary power. Nevertheless, I will now seek to show the importance of entertaining such knowledge as this at the level of *methodology* as well.

In the first place, a praxeological methodology would strengthen several of Simon's concrete arguments. It would reinforce, as I have shown, Simon's analysis of all three of the concepts discussed in the three previous sections. Indeed, in more than one instance, little remained to be done after the terms of discussion had been suitably clarified through praxeological analysis. This clarity, however, was achieved *in spite of* Simon's claim of empiricism.

Finally, a praxeological methodology would lessen the possibility that readers of *The Ultimate Resource* might take Simon's claim of empiricism more seriously than they do the context of praxeological analysis from which his results have emerged. Nor is the method of technologic measurement discussed in the previous section the only, or even the most immediate, fashion in which Simon's empirical methodology could be translated into practice. For, recall that the "facts" that Simon understands to be the irreducible basis of his "empirical" analysis are the trends in resource prices that he reports (as opposed to technologic measurements of resource "reserves"). In other words, he has presented stable and recurrent configurations—never mind, just now, how they have been discovered—and advocated the construction of "scientific generalizations" based upon them.

Now, given these stable and recurrent configurations (and ignoring their praxeological grounding), the next step in the logic of empirical scientific procedure is to attempt a symbolization, perhaps through mathematical methods, of the process that produces these configurations. Simon, of course, has not actually taken this step, but this would not prevent someone else from taking up the "empirical" task where he left off. One can easily imagine, for example, someone seeking to understand the graph of the price of a particular resource plotted with respect to time as the graph of a "price function," itself an eigenfunction of a "price equation," and so on. Indeed, for one having some training in mathematics, the temptations presented by such a situation might well prove irresistible.

The point is, of course, that there is no need—and indeed, no room—for a fresh symbolization of the process that has produced these configurations. Readers already know the process, having *begun* by knowing the process. It is Simon's analysis of human action that has revealed these configurations in the first place, *and it is this underlying praxeological context that must he asserted at all costs*. Let this context once be dropped, as it would be Simon's claim of empiricism were allowed to stand—let these price trends once assume the appearance of self-contained, freestanding, empirical "data"—and there will be no end of "models," "scientific generalizations," and "mathematical methods" offered by those far more consistent and ambitious than Simon in pursuing practical applications of his empirical methodology.

On the other hand, let the praxeological context of "the facts of the social sciences" be recognized and preserved—let praxeological method be matched with praxeological methodology—and the superimposition of such superfluous and inconsistent layers of process will henceforth be undertaken with only the most embarrassing results. For there shall then be *two* layers of process: one underlying and engendering the configurations, which is symbolized praxeologically; and another overlaying and purporting to explain these same configurations, symbolized (probably) through mathematical formalism. The former shall be known with great "warmth and intimacy"[29] and the latter only rather dimly and at (at least) two removes from immediate experience.

Accordingly, one shall have the right to ask the empiricist what relation his second layer of process has to the first and more fundamental layer. In so doing, one shall merely be translating into economic terms the requirement known in physics as the "correspondence principle."[30] It will simply be required that the two symbolizations of process, being descriptions of the same reality, be continuous with one another. It will be most interesting to learn, for example, how the empiricist's differential equations can help thinkers to interpret their experience of the "life-world." And when they find, as they must, that these equations are of no help at all, then the path shall lie clearly ahead, and readers shall not hesitate to reject this scientistic deformation of economic reality.

The motto must be (with apologies to Edmund Husserl): "To the facts themselves" For if economists clearly understand the nature of the facts of economic science, then they shall have

occupied the high ground, from which, though pitifully few, they shall turn back hosts.

The Ultimate Resource by Julian L. Simon. Princeton, N.J.: Princeton University Press, 1981.

[1] Cf. S.L. Jaki, *The Road of Science and the Ways to God* (Chicago: University of Chicago Press, 1978), pp. 182f. See also M. Polanyi, *Personal Knowledge* (Chicago: University of Chicago Press, 1962), pp. 9f.

[2] Cf. William James, *The Principles of Psychology*, vol. 53 of *Great Books of the Western World*, R.M. Hutchins, ed., 54 vols. (Chicago: Encyclopedia Britannica, 1952), especially chap. X.

[3] E. Voegelin, "On the Theory of Consciousness," in *Anamnesis*, G. Niemeyer, trans. and ed. (Notre Dame, Ind.: Notre Dame University Press, 1978), p. 33.

[4] Cf. Carl Manger, *Principles of Economics*, James Dingwall and Bert F. Hoselitz, trans. (New York: New York University Press, 1981), especially pp. 101f. See also L. Robbins, *An Essay on the Nature and Significance of Economic Science*, 3d ed. (London: Macmillan, 1984), pp. 13f.

[5] Cf., for example, D.H. Meadows, et al., *The Limits of Growth* (New York: Universe Books, 1972), pp. 55f.

[6] J.L. Simon, *The Ultimate Resource* (Princeton, N.J.: Princeton University Press, 1981), p. 22. All references to this work will be given, parenthetically, in the body of the review.

[7] Cf., for example, K.R. Popper, *The Logic of Scientific Discovery*, 2d ed. (New York: Harper and Row, 1968), especially chaps. 1, 3, 5. For a readable and succinct discussion of the methodological debate and its relation to the social sciences, see Homa Katouzian, *Ideology and Method* (New York: New York University Press, 1980), especially chaps. 2–4.

[8] F.A. Hayek, *Studies in Philosophy, Politics, and Economics*, Midway Reprint (Chicago: University of Chicago Press, 1980), p. viii.

[9] This concrete situation is illustrative of the "aprioristic" character of praxeological knowledge: one is unable even to conceive of some market "data" which could shake one's confidence in Simon's use of market price as the measure of resource scarcity. That is, "we cannot think of the truth of its negation or of something that would be at variance with it" (L. von Mises, *The Ultimate Foundation of Economic Science: An Essay on Method*, 2d ed. (Kansas City: Sheed, Andrews, and McMeel, 1978), p. 4; see also, by the same author, *Human Action*, 3d rev.

ed. (Chicago: Contemporary Books, 1966), especially pp. 38–41, 64–69.)

Note, however, that this does not necessarily deny "the broadly empirical nature of the praxeological axioms" (M.N. Rothbard, "Praxeology: The Methodology of Austrian Economics,") in E.G. Dolan, ed., *The Foundations of Modern Austrian Economics* (Kansas City: Sheed and Ward, 1976), p. 26.

[10] Cf. F.A. Hayek, "The Facts of the Social Sciences," in *Individualism and Economic Order*, Midway Reprint (Chicago: University of Chicago Press, 1980), p. 72:

> [The theories of the social sciences] are not *about* the social wholes as wholes; they do not pretend to discover by empirical observation laws of behavior or change of these wholes. Their task is rather, if I may so call it, to *constitute* these wholes, to provide schemes of structural relationships which the historian [or the economist] can use when he has to attempt to fit together into a meaningful whole the elements which he actually finds.

[11] Cf. F.A. Hayek, *The Counter-Revolution of Science: Studies in the Abuse of Reason*, 2d ed. (Indianapolis: Liberty Press, 1979), pp. 102–3:

> In biology we do indeed first recognize as things of one kind natural units, stable combinations of sense properties, of which we find many instances which we spontaneously recognize as alike. We can, therefore, begin by asking why these definite sets of attributes regularly occur together. But where we have to deal with social structures, it is not the observation of the regular coexistence of certain physical facts which teaches us that they belong together or form a whole. We do not first observe that the parts always occur together and afterward ask what holds them together; but it is only because we know the ties that hold them together that we can select a few elements from the immensely complicated world around us as parts of a connected whole.

[12] K.R. Popper, quoted in Hayek, "Degrees of Explanation," in *Studies*, p. 5.

[13] Hayek, ibid., p. 9.

[14] "Logically untenable," that is, as presented here. Cf., for example, K.R. Popper, "Two Faces of Common Sense," in *Objective Knowledge: An Evolutionary Approach*, rev. ed. (Oxford: Clarendon Press of Oxford University, 1979), especially pp. 81f.

[15] Cf. M. Natanson, *Edmund Husserl: Philosopher of Infinite Tasks*, Northwestern University Studies in Phenomenology and Existential Philosophy, J.M. Edie, ed. (Evanston, Ill.: Northwestern University Press, 1973), chap. 7.

[16] Cf. Hayek, "The Facts of the Social Sciences," in *Individualism*:

> The tendency [of the development of scientific thought in modern times] has been correctly described as one toward the progressive elimination of all "anthropomorphic" explanations from the physical sciences. Does this really mean that we must refrain from treating man "anthropomorphically"—or is it not rather obvious, as soon as we put it this way, that such an extrapolation of past tendencies is absurd? (p. 65).

[17] Ibid., pp. 59–60.

[18] Ibid., p. 63.

[19] Hayek, "Socialist Calculation I: The Nature and History of the Problem," in ibid., p. 126.

[20] Hayek, *Counter-Revolution*, p. 41.

[21] Cf. A. Schutz, *The Phenomenology of the Social World*, Northwestern University Studies in Phenomenology and Existential Philosophy, J. Wild, ed. (Evanston, Ill.: Northwestern University Press, 1967), chaps. 2, 3; "Common Sense and Scientific Interpretation of Human Action," in *Collected Papers, vol. I: The Problem of Social Reality*, M. Natanson, ed. (The Hagüe: Martinus, Nijhoff, 1962), pp. 3–40; "Phenomenology and the Social Sciences," in ibid., pp. 118–39; "The Dimensions of the Social World" in *Collected Papers, vol. II: Studies in Social Theory*, A. Brodersen, ed. (The Hague: Martinus Nijhoff, 1976), pp. 20–63.

[22] Jaki, *Road of Science*, p. 33. See also E.A. Burtt, *The Metaphysical Foundations of Modern Science* (New York: Doubleday, 1954), especially pp. 18f.

[23] These are but two of many examples of measures. Lebesgue measure is due to the French analyst, Henri Lebesgue, and has the property that it extends the usual notion of length.

That is, while it is applicable to a much larger class of subsets of the real line, Lebesgue measure assigns to each interval its usual length. The counting measure of a set, on the other hand, coincides with the number of elements, or cardinality, of the set. For a thorough treatment of measure theory, see Edwin Hewitt and Karl Stromberg, *Real and Abstract Analysis* (Berlin: Springer-Verlag, 1965), especially chap. 3.

[24] Cf. Hayek, *The Constitution of Liberty* (Chicago: University of Chicago Press, 1960):

> We know little of the particular facts to which the whole of social activity continuously adjusts itself in order to provide what we have learned to expect. We know even less of the forces which bring about this adjustment by appropriately co-ordinating individual activity (p. 25).

[25] Hayek, "The Facts of the Social Sciences," in *Individualism*, p. 72.

[26] Cf. James, *Principles*, pp. 128–29.

[27] Cf. Polanyi, *Personal Knowledge*, pp. 62–63.

[28] Cf. Voegelin, "About the Function of Noesis," in *Anamnesis*, pp. 211f.

[29] The defining characteristic, for William James, of "the stream of consciousness." Cf. *Principles*, 213.

[30] This is the requirement, first explicitly stated by Niels Bohr, that the postulates of quantum mechanics must yield classical results when applied to classical systems (mechanical systems for which the quantum number, n, is large). Cf. J.D. McGervey, *Introduction to Modern Physics* (New York: Academic Press, 1971), pp. 80f.

The Evolution of Cooperation

Reviewed by Roger Arnold

Robert Axelrod's *The Evolution of Cooperation* is destined to find its way into hundreds of scholarly footnotes over the next decade. It is, quite simply, a book that will be widely read and discussed within the academic circles of many fields.

There is a reason for this. It is a book that in simple and straightforward language addresses a major and long-standing question that, it so happens, is peripherally related to a long list of interesting topics. The question, as Axelrod notes, is "Under what conditions will cooperation emerge in a world of egoists without central authority?" A few of the peripherally related topics include: trench warfare in World War I, biological systems, the golden rule, nuclear warfare, government's raison d'etre, family feuds, stereotyping, economic protectionism, congressional politics, morality, taxes, and international cooperation.

The sum around which the book revolves is the game strategic prisoner's dilemma. Prisoner's dilemma, as Axelrod tells us, "is simply an abstract formulation of some very common and interesting situations in which what is best for each person individually leads to mutual defection, whereas everyone would have been better off with mutual cooperation." The recognition of which has predictably led many persons to ask, "So, what is the solution?" Axelrod, armed with the computer tournament results of prisoner's dilemma experts, answers that in iterated prisoner's dilemma games it is Tit for Tat: the behavioral response that seeks to do to others (good or bad) what others have done to you.

A little background is necessary. Axelrod asked persons who had written on prisoner's dilemma (persons in the fields of biology, computer science, economics, mathematics, physics, political science, psychology, and sociology) to submit a computer program they thought would obtain the most points when pitted against other computer programs within the prisoner's dilemma setting. The winner was Tit for Tat, submitted by Anatol Rapoport.

This is interesting in and of itself. But there is more. First, and most importantly, there is the fact that the winner of

prisoner's dilemma is also the solution to it—Tit for Tat generates mutual cooperation, the slippery and supposedly unobtainable goal of prisoner's dilemma. Second, Tit for Tat, while designed as a strategy for winning, appears to have admirable characteristics: it is nice (it is not the first to make trouble), it is retaliatory (thus providing an incentive to the person who starts trouble to desist), it is forgiving (which means it shows good faith, a key ingredient for mutual cooperation), and it is clear (thus making a communication foul-up between persons unlikely).

All this is interesting and simple enough, and Axelrod does an exceptionally good job at reporting the results of the computer tournament, describing some of the high-scoring strategies other than Tit for Tat, and bringing out the subtle points behind Tit for Tat. It is when he tries to interpret what Tit for Tat means for some important policy questions, though, that Axelrod does less than an exemplary job. In fact, here he might be faulted for muddled thinking.

One important case in point in his discussion of government. As no doubt many persons have heard by now, and Axelrod makes clear by citing Hobbes and quoting Rousseau, it has long been acknowledged that government is the solution to prisoner's dilemma. The story line is familiar: (1) in some cases, individuals would be better off cooperating than not cooperating; (2) uncertainty and general human nature sometimes make cooperation a difficult outcome to achieve; and (3) government enters the picture, and through it individuals get what they want but could not obtain on their own.

In game theory language, government solves the prisoner's dilemma by "changing the payoffs." Axelrod notes that

> Large changes in the payoff structure can transform the interaction so that it is no longer even a prisoner's dilemma. If the punishment for defection is so great that cooperation is the best choice in the short run, no matter what the other player does, then there is no longer a dilemma.

Government's "changing the payoffs" obviously does not disturb Axelrod, for in chapter 7, he advises the reader on how to promote cooperation—government is not one of the ways ruled out. On the contrary, it is one of the ways ruled in. Speaking of government-imposed taxes, Axelrod says: "But everyone may be better off if each person has to pay so that each can share the

benefits of schools, roads, and other collective goods."

This is a rather odd statement from one who, up until this point, appears to have been quite excited over the discovery that Tit for Tat offers a noncoercive way out of prisoner's dilemma settings. Axelrod might be saying that there are two ways to remove oneself from the grasp of the prisoner's dilemma: the coercive way and the noncoercive (or free) way. Or he might be saying that the noncoercive way only works in some prisoner's dilemma situations and not in others—it might work when the goal is the removal of international trade barriers, but not when the goal is the provision of a public good. In either case, Axelrod leaves people hanging; he leaves them without information that directly relates to answering the question he starts his book with: "Under what conditions will cooperation emerge in a world of egoists without central authority?"

In Axelrod's defense it needs to be said that he does say that in a prisoner's dilemma setting, the more people believe that they will come into contact with each other in the future, the more likely cooperation is to naturally emerge. While this answer to his introductory question is better than no answer, it is not a full answer, and in that it is not, one is left with no more objective knowledge to aid in deciding where the line between government and the market should be drawn than one had before reading the book. To go one step further back, no answer is provided for Axelrod's question, which is a proxy for what Robert Nozick calls the "fundamental question of political philosophy"—namely, should there be any state at all?

The Evolution of Cooperation ends up being a mixed bag. It is topical and well written; additionally, Axelrod is superb as reporter and analyzer of prisoner's dilemma strategies and computer tournament results. It is only when Axelrod sets out (one senses somewhat timidly) to look at what prisoner's dilemma and the winning strategy, Tit for Tat, mean within the larger context, that things come up short. This book would have been much improved if Axelrod had taken greater pains here, if he had only focused on answering the question that begins his book. Robert Axelrod needs to seriously think about writing *The Evolution of Cooperation: Part II*.

The Evolution of Cooperation by Robert Axelrod. New York: Basic Books, 1984.

Competition versus Monopoly: Combines Policy in Perspective

Reviewed by Roger Arnold

There are numerous well-known definitions of economics, but the one that best captures what economics is about is James Buchanan's definition, namely: "Economics is the science of markets or exchange institutions."

Sadly, most economists do not "do economics" with this definition in mind. They "do economics" in the same way that one would imagine an engineer "does engineering." It is all very mechanical.

Donald Armstrong is not like most economists. He is an economist who knows that economics is first and foremost about markets, about exchange. And with that proper focus, he has created a splendid work—a work rich in the nuts and bolts of everyday economic life, a work that cannot be summarized (much to its credit) in a handful of equations and curves.

This book is about many things, but mostly it is, as the title notes, about competition and monopoly. Specifically, it is a constructive criticism of the neo-classical two-dimensional price theory which looms large in the discussions of the firm and market structures in the best-selling economics textbooks. More specifically, it offers a replacement for the orthodox structuralist theory of competition.

The replacement—the behavioral theory of competition—is grounded in an emphasis on process rather than outcome, a Hayekian view of competition, a rather Rothbardian view of monopoly, and a place (thankfully) for the entrepreneur. This is all new stuff to anyone who has not utilized his peripheral vision and looked beyond the mainstream discussion of the firm, perfect competition, and monopoly found in most economics textbooks. In fact, to this person it is an entirely new language. But it is a language that accurately conveys what is happening in the real world when it comes to the firm, competition, and monopoly.

One senses that if Donald Armstrong could have his way, the model of perfect competition would tomorrow disappear from center stage of the theory of prices and markets. It is too bad Armstrong cannot have his way. The model, as he points out, is

not only totally artificial, but it is misleading. It implicitly emphasizes the number of firms in an industry (which is difficult to define) as the sole determinant of whether or not competition exists. In the limited framework of neoclassical two-dimensional price theory, more firms in the industry mean more competition. Nothing else matters. Nonsense. There are other dimensions to competition, as Armstrong clearly points out.

Furthermore, there is the fact that this totally artificial market structure of perfect competition—which, by the way, many orthodox economists will admit is not even close to being descriptive of the real world—is put forth by these same economists as the proper benchmark for other market structures to be measured up against. (How else could it be that economists speak about "dead weight losses"?) What must first-year economics students think when presented with all this hullabaloo?

What also must they think when they encounter monopoly? As Armstrong points out in his book, they probably think that monopoly is something that it is not. This is because the students' teachers probably think that monopoly is something that it is not. Chapter 5, which deals with monopoly, is a must to read for anyone who thinks that a monopolist is a single seller of a good, is interested in the easy life, and can and will charge a price for his good that is above the competitive level. The theme here is: What you think monopoly is, and how you think it behaves, are probably all wrong.

An important message of this book is that government policy, based on a wrongheaded notion of competition and monopoly, is bound to create more problems than it solves. Take, for instance, the most common and blatant example. A government official, thinking that the model of perfect competition is the ideal, notes that in the model, in equilibrium marginal cost is equal to price, and that in the long run economic profits are zero. Great. What next? Well, armed with this information the government official can undertake a policy of search and destroy: search for those firms selling above marginal cost and making greater than zero economic profit, and destroy them. Either that, or get them to toe the perfect competition line —all in the name of economic justice and consumer sovereignty, of course.

Economics professors and university students have the most to benefit from this book. It offers a trenchant and correct criticism of much of what they are teaching and learning. One

can only imagine how things might be different today on the economic front if Armstrong's ideas had been taught in the colleges, universities, and law schools of this country over the past three to four decades. If one makes the reasonable assumption that ideas based on reality are better than those based on fantasy, then it follows that things would have been much better. And that should tell the person thinking of reading Armstrong's book just how important it is to follow through.

Competition versus Monopoly: Combines Policy in Perspective by Donald Armstrong.

A Response to the Framework Document for Amending the Combines Investigation Act

Reviewed by Roger Arnold

It is sad that Walter Block had to write this essay. If politicians were less interested in power, if bureaucrats were less interested in meddling in the affairs of the economy, and if the majority of academic economists were less starry-eyed over statistics and more knowledgeable of the way free markets work, then this essay would not have had to have been written. But, alas, the world is what it is, so this essay did have to be written. Walter Block was certainly up to the task.

First, a little background. The *Combines Investigation Act* is one of those pieces of economic legislation seeking to bureaucratize and politicize the Canadian economy. It is part of the rationalist-constructivist mindset that implicitly assumes that if government officials do not have a hand in what happens in the economy, well then, nothing good can naturally happen. To the rationalist-constructivist, the only good hand is a visible hand. To them, Adam Smith's invisible hand truly is invisible.

Specifically, the *Combines Investigation Act* addresses issues such as competition, industry concentration, mergers, price fixing, cartels, vertical integration, and price cutting.

In Spring 1981, along came the Canadian Minister of Consumer and Corporate Affairs, André Ouellet, who put forth his "Proposals for Amending the *Combines Investigation Act*: A Framework for Discussion." Briefly, Minister Ouellet's proposals for reform sought to make the *Combines Investigation Act* more interventionist and meddling.

Enter Walter Block, senior economist for The Fraser Institute. Block specifically set out to criticize Minister Ouellet's proposals, to criticize the *Combines Investigation Act* in general, and to teach some good economics in the process. It is the latter goal that is likely to be the most interesting to the reader of this essay.

Walter Block is a master at destroying economic myths in a simple, understandable, and convincing way. He proved this

beyond a doubt in his book *Defending the Undefendable*. No economic myth is left with an ounce of life in it after Block has taken aim at it. Just two of the many myths that Block pulverizes in "A Response to the Framework Document for Amending the Combines Investigation Act" are: (1) Economic concentration is the antithesis of economic competition; and (2) Government, manned with benevolent individuals and economics experts, promotes competition. (Yes, Virginia, there still are millions of individuals who believe this foolishness.)

As to the concentration-competition issue, Block convincingly shows that concentration ratios and the number of firms in an industry have nothing to do with competition. As he colorfully notes, "Industrial concentration is as much related to competition as fish to bicycles." As Block points out, concentration ratios—statistical artifacts—overlook much of the nitty-gritty of real economic life. They, or rather the individuals who construct such things, either overlook or are ignorant of the facts that goods and markets can either be defined narrowly or broadly, that competition does not stop at a nation's borders, that the size of the economy is relevant to the discussion, and most of all, that competitive behavior does not pay any attention to silly numbers that many academic economists and government bureaucrats come up with. It is motivated by something much more fundamental. As Block correctly points out, firms with high concentration ratios are some of the most competitive firms to be found. A quick glance at a good financial newspaper or magazine generally illustrates this fact. One would have thought that most politicians, who usually vie for office alongside only one or two other individuals, would have known this. Political competition, after all, is known for its ferocity.

As to the second myth, Block shows a series of government interventions in the economy which, although their stated intention many times is to increase competition, do just the opposite. Most of these interventions can be summarized by the phrase "barriers to entry." The Block message: If the Canadian government is truly interested in promoting competition and in advancing the standard of living of its people, it should eliminate legal barriers to entry and forget all this nonsense about promoting competition by checking a firm's concentration ratio and then acting (usually) in a rationalist-constructivist way.

It is the same message advanced by other economists who understand the workings of free markets. But Block advances the message particularly well. He does it in such a way that even if

the government officials or politicians do not pay heed, at least they cannot walk away feeling smug in their ignorance or hypocrisy.

This is an essay that is of interest to the educated layman, the government bureaucrat, the politician, and the academic economist. The issues covered are of immediate and lasting importance. The essay is of particular interest to the person who wants to know what competition is and is not, how politicians behave, and why they behave as they do. With respect to the latter issue, there is enough public choice theory to make the entire discussion complete. There are few essays written today from which one can learn so much so quickly and be so thoroughly entertained along the way.

"A Response to the Framework Document for Amending the Combines Investigation Act" by Walter Block.

Writing History: Essay on Epistemology

Reviewed by Edward H. Kaplan

Readers of von Mises's *Theory and History* or *Epistemological Problems of Economics* will find little to affront their sensibilities in this extended essay by a French historian on what historians ought to and (equally important) ought not to do when they write history. Veyne even cites von Mises and Hayek for some key aspects of his argument. Other aspects, though both plausible and vividly expressed, may leave many historians and economists uneasy.

Veyne denies that history can be a social science. Any true science creates a set of abstractions as its object. History fixes on concrete particulars. The historian composes these into "true novels," and so resembles the novelist more than the scientist. Because the novelist creates fictions which strive for versimilitude—the form or appearance of truth—he may have to perform the kind of research into documents one normally associates with the historian. The historian, of course, must not make up characters or incidents, but like the novelist he has to decide upon a "plot" which fits his narrative. Various plots will, however, fit a given set of documents, depending on what sort of story the historian wants to tell, and different plots will send the historian scurrying off after different sets of documents. "Facts" do not lie around in documents like so many irreducible atoms. The needs of his plot determine what facts the historian will construe out of which documents.

The historian explains what he is writing about by giving an account of it—by unfolding the plot he has selected for that narrative. Abstractions as such cannot be historical explanations. Socrates was not killed by demagogy, not even Athenian demagogy. Particular demagogues did the deed and they did it not with demagogy but with hemlock.

As it was for Aristotle and Aquinas, the historian's causation remains an uncertain mixture of physical or social law, chance, and human free will. History is, therefore, an open system, and neither the economist's equilibrium nor historical laws are possible for it.

Even such “intuitive abstractions” as “enlightened despotism” are not approximations of historical laws, but mere verbal shortcuts, “only the summary of a plot.” (p. 118). Such historical types, unlike biological species, are wholly subjective. Any particular enlightened despotism, for example, surely has enough unenlightened aspects as to oblige the historian to create a new type should his plot require him to notice them. General labels for concepts such as “direct taxation” or “hereditary monarchy” are no more than building blocks for historical types. To make these types sufficiently general as to approximate scientific laws is to spill over into the ridiculous (for example, the Marshall Plan as an instance of potlatch).

Not even Max Weber’s “ideal types” are instances of historical laws. Ideal types are actual historical individuals or events rendered in the historian’s mind as perfect examples of themselves so as to lay bare their inner logic. Would-be social scientists have stripped away the rich vestments of historical context which Weber so carefully provided for such ideal types as the “Protestant ethic” or “capitalist spirit” and thereby reduced them to bland abstractions useful neither to history nor true social science.

The historian can at least use historical types to draw analogies to roughly similar events at other times or places for which more or better documentation exists, and can thereby help “retrodict” a past cause for some later event. As the historian broadens his “historical culture,” more and more apt analogies may occur to him, and his historical types may gradually turn into Weberian ideal types. By easy stages the history of specific events in particular places and times will evolve into the comparative history of what Veyne calls “non-events”—cities or direct taxes, for example—rather than “events”—Paris or direct taxation in modern France.

A science of man is possible and to some degree already exists, but history is not and cannot be that science. Such a science must, Veyne argues (citing von Mises, Hayek, and Schumpeter) be praxeological. If the objects of history are specific events (and nonevents), the objects of a true human science must be abstractions that can be manipulated in the mind independently of the world from which they were drawn. Veyne also believes they must be put into mathematical terms, a notion that he surely did not get from the Austrians, but otherwise his view is quite congruent with theirs: Just as Galileo did not infer the role of gravity from the unworkable and probably mythical

experiment of simultaneously dropping a ball and a feather from the leaning tower of Pisa, but from a mental experiment conducted on the interaction of the abstractions "force" and "mass" on each other, so too economics does not base its law of declining marginal utility on data provided by psychological observations, but on the logic of a carefully delimited imaginary situation wherein people apply the first unit of a good to the use they most favor, and each successive unit to less favored uses.

Veyne believes economics to be the best-developed human science, at least in its truly scientific neoclassical form (within which he places the Austrians), rather than in its historicist and institutionalist forms. But even economics is of mainly negative use to the historian—to explain (under certain narrowly defined circumstances) why some people did not obtain some results they expected. Laborers, for example, may never move toward actually obtaining their DMVPs for their wages because of any number of possible political interventions and/or customary freezings of relative wages; it is the historian's main business to focus on these particular events rather than on the never-achieved tendency for wages to converge on DMVPs. Indeed Veyne quotes with approval (p. 254) von Mises's dictum that the historian need only know as much of some science relevant to his topic as does an average educated man. The historian, Veyne keeps insisting, must always return to the specificities of his documents. Dwelling too long in the realm of even a valid science's abstractions must either turn him from historian into scientist or tempt him into the vain search for valid historical types that are also scientific laws.

Truly praxeological sociology barely exists as yet, Veyne argues. "General sociology" of the sort done by writers such as Talcott Parsons is merely solipsistic. It uses nominally universal vocabulary merely to label entities without turning them into abstractions that could be meaningfully manipulated as such in people's minds. To the extent that Marx attempted a general sociology, his work is no more valid than that of the Parsonians. Marx and Weber went beyond this to write "noneventworthy" history, and so both are still worth reading. Because noneventworthy history may appear to deal with abstract universals, it may fool the sociologist into thinking he is doing social science.

Veyne treats Marx as something of an extinct volcano, but Weber still excites his interest and admiration. Like Marx, Weber thought he was doing historical science. In the quarrel over

methods between Carl Menger and the German historical school, Weber sided with the latter, arguing that classical economics was merely the ideal type of economic thought produced under liberal capitalism. But if economics was both ideal type and science, Weber implicitly reasoned, his own sociology of ideal types must also be a valid historical science. Weber's work has survived, Veyne insists, because he was actually pioneering noneventworthy history.

Aside from noneventworthy history, about all that is validly left to the sociologist is contemporary history, usually also of the noneventworthy sort. The history of the present and of the noneventworthy past are often left to sociologists because historiography began as the community's memory and as the handmaiden of kings and conquerors, the specific events of whose lives it commemorated. Veyne is content with this division of labor, though by calling comparative and noneventworthy history the logical completion of national and eventworthy history, he would clearly not object to either historians or sociologists poaching on each other's territories.

There is little to criticize in this English-language edition of an early 1970s book. The translation occasionally falters, but even without the original French in hand, there is no real difficulty in surmising what Veyne must have intended. The translation nicely captures what must have been the epigrammatic touches of the original.

The most serious omission, which might serve Veyne as the topic for some subsequent essay, is that he introduces the notion of "plot" without discussing in any detail what that term implies. In a series of essays of the 1960s and 1970s collected in *Topics of Discourse: Essays in Cultural Criticism* (Baltimore: Johns Hopkins, 1978) and in detail in *Metahistory: The Historical Imagination in Nineteenth-Century Europe* (Baltimore: Johns Hopkins, 1973), the American scholar Hayden White approached this problem of the "emplotment" of factual historical narratives as an exercise in pure literary genre analysis, with results as intriguing as they are disconcerting.

Following Levi-Strauss (who is also one of Veyne's prime sources) but also literary critic Northrop Frye and linguistic theorist Roman Jacobson, White suggested that, at least for Western man and perhaps for humanity at large, there are really only four basic kinds of plot: romance, comedy, tragedy, and satire, and that each of these is associated with its own characteristic "trope" (in the sense of figure of speech):

metaphor, metonymy, synecdoche, and irony, respectively. White even linked these plots and tropes to specific ideological positions: anarchist, conservative, radical, and liberal, respectively. Only mediocre and doctrinaire historians, White hastened to add, stay rigidly within this pattern. The great historians always attempt to mediate between pairs of these tropes and plots because they can see how they can all be true.

The historian has to fit his work into one or another of these sets of categories or flit back and forth between them—first, because he is using language and these categories may in fact constitute the rules for using language; and, second, because his readers, however unconsciously, attempt to recognize one of these categories in his work, and it is only when they discover the plot he is using that they grasp his explanation of the story. "Aha," in effect the reader exclaims. "Now I see what the historian is getting at here. He is recounting a tragedy. Now I understand what is going on."

If only four basic plots exist, there may be at least rough limits to the degree of complexity that the historian need embrace. White even suggests that when a revisionist historian changes plots, he is doing what a Freudian analyst does when he encourages his patient to recast his subconscious emplotment of the events that cause his neurosis into some other, more innocuous, plot. This, however, may be of more comfort to beleaguered Freudians than to historians embarrassed by such company.

White's analysis of particular historical narratives reads disconcertingly like the "deconstruction" or "unpacking" of literary texts of literati of the deconstructionist school. Flashes of insight often come wrapped in opaque technical jargon as barbarous as anything committed by the disciples of Talcott Parsons. Worse, judgments about which of two tropes dominates a particular segment of narrative sometimes seem arbitrary.

Though historians, like novelists and poets, can continue to do their jobs without benefit of literary deconstruction even if they are, in fact, writing true novels, one may wonder (to commit some trope or other) whether Professor Veyne's intriguing book has snatched the historical profession from the palsied hands of the sociologists only to inadvertently drop it into the ravening jaws of the English professors.

Writing History: Essay on Epistemology by Paul Veyne (Trans. Mina Moore-Rinvolucri). Middletown, Conn.: Wesleyan University

Press, 1984 (orig. French ed. 1971).

The Unseen Dimensions of Wealth: Towards a Generalized Economic Theory

Reviewed by Edward H. Kaplan

Despite the large claims implied by its subtitle, this is not a theoretical treatise. Nor does it succeed in laying bare the principles of how an economy behaves under normal, that is, nonequilibrium, conditions. That is just as well, since such principles almost certainly cannot be discovered anyway. Much better, it is a slightly disguised but interesting and useful economic history which succeeds in raising the economic experience of post-1949 Hong Kong almost to the level of a Weberian ideal type of a particular sort of market economy.

If Henry Woo, a talented Hong Kong economic journalist, is more nearly like George Gilder than Israel Kirzner, this is not to be despised. Like Gilder, he has read some of the Austrians, and appreciates them, at least for their understanding of the nonreality of equilibrium, but (also like Gilder) he has not entirely mastered Austrian principles. Sometimes this leads him to reinvent the wheel, at other times to reinvent the triangle and call it the wheel.

Woo's notion of "human capital," for example, is blessedly free of the narrow focus on formal education of Schulz or Becker, whose work has been so mischievously exploited by apologists for a bloated U.S. tertiary education system. Informal learning on the job and by thoughtfully scanning the evolving market is, for Woo, much more important. Indeed, without quite indicating whether he has derived it from the Austrians, he recapitulates the notion epitomized by von Mises and Rothbard that there is no homogeneous Labor, but only a congeries of particular laborers, most of whose services constitute unique goods.

Woo also incorporates the von Mises-Hayek theory of the business cycle into his analysis, but because he does so from the more visible perspective of demand for credit rather than central-bank-induced increased supply of credit, his argument is far less clear than the Austrian original both to the reader and (one suspects, from his neglect of the role of government-induced

increases in the money supply as a cause of inflation) to himself as well.

Of course, the good parts as well as the theoretically murky parts of his general treatment are the consequence of Woo's frankly announced decision to generalize from the modern Hong Kong experience. Hong Kong has barely enough land to stand on. The adaptability of its labor force has counted for far more than its relatively sparse and simple supply of capital goods. Its banks are relatively free to respond to domestic and foreign pressures to create money, so it is natural for Woo to focus on these pressures rather than on the increased money supply itself.

Though in principle it need not be so, in practice it is reasonable for Woo to emphasize the tendency of an unfettered market to spontaneously grow. Woo's general stages of growth—a long stasis before the market is unchained, a relatively short burst of unconstrained growth, followed by a long period of constrained growth (caused by, first, compounding manipulation from outside the market and, second, a constantly shifting disequilibrium permitted by inefficient manipulation within the market)—all faithfully reflect the stages of Hong Kong's actual economic history.

The book is also seeded with a number of bits of illuminating narrative, such as Woo's suggestion that the recent appearance of better housing across the waters in the New Territories may be making for greater inefficiency because workers commuting so far to their jobs can no longer as easily carry piecework home during the busy season to be worked on by the grannies and children. A bit of comparative historicizing on this point (which Woo does not do) will allow one to recognize that the Hong Kong experience is not entirely unique, and that even diligent Chinese at some stage begin to favor the leisure of a decent apartment over labor, just as did diligent and then prosperous Jewish refugees from the Russian Pale after 1920, when they abandoned the slums of the Lower East Side of New York for the comparatively palatial apartment houses of the South Bronx.

The Unseen Dimensions of Wealth: Towards a Generalized Economic Theory by Henry K.H. Woo. Fremont, Calif.: Victoria Press, 1984.

The Economic Calculation Debate: Lessons for Austrians

Israel M. Kirzner

The thesis of this article is that the celebrated debate over economic calculation under socialism that raged during the interwar period was important for the history of economic thought in a sense not generally appreciated. Not only was the debate an important episode, of course, for its own sake. It was, in addition, I shall claim, important as a catalyst in the development and articulation of the modern Austrian view of the market as a competitive-entrepreneurial process of discovery. Professor Karen Vaughn has written of her conviction that "the most interesting results of the controversy . . . were the further developments of economic theory to which it gave rise."[1] It will be my contention here that the crystallization of the modern Austrian understanding of the market must be counted among the most significant of these "further developments of economic theory." I shall argue that it was through the give-and-take of this debate that the Austrians gradually refined their understanding of their own position; the Mises-Hayek position at the end of the forties was articulated in terms far different from those presented in the Misesian statements of the early twenties. Moreover, this more advanced Mises-Hayek position pointed beyond itself toward (and decisively helped generate) the more explicit Austrian statements of the seventies and eighties.

Now it may at first glance appear that my thesis contradicts the view of the most eminent historian of the calculation debate. Don Lavoie, in his definitive account of the debate, has exhaustively explored the debate as what we have referred to as "an important episode for its own sake."[2] His position in regard to the debate emphasizes two related points: First, Lavoie emphatically denies that, as a result of the thrust and parry of the debate, the Austrian side found it necessary "to retreat" from or otherwise modify its originally stated central case challenging the feasibility of economic calculation under socialism. For Lavoie, the later statements of Mises and Hayek do no more than restate—in better, clearer, fashion—the originally presented arguments. Second, Lavoie has demonstrated with admirable

clarity and thoroughness that the Mises-Hayek arguments, from the very beginning, reflected the Austrian understanding of the market as a competitive discovery process. (He furthermore has shown that it was failure by the socialist economists to recognize this that led to confusion during the debate itself, while it was failure by later historians of the debate to recognize this that led to the widespread misinterpretations of the debate by post—World War II writers.) So that it may appear that my contention that the debate was itself responsible for the distillation of that Austrian understanding runs sharply counter to both of these elements in Lavoie's thesis. It will perhaps be helpful to explain briefly why, in my view, there is no contradiction here.[3] In fact, such a brief explanation permits me usefully to introduce further the central ideas to be offered in this article.

The Articulation of the Discovery-Process View

Professor Lavoie is entirely correct, I believe, in interpreting the original 1920 argument by Mises as reflecting the characteristically Austrian understanding of the market as an entrepreneurial process.[4] And, as Lavoie shows, once this is recognized, there is no reason whatever to read the later statements by Mises and Hayek as "retreating" from the original argument. My position is, however, that neither Mises nor (in his earlier papers on the topic) Hayek was aware of how sharply their Austrian view of the market differed from that implicit in the views of other contemporary schools of thought. Accordingly, the earlier statements of the Austrian position failed to articulate sufficiently clearly the "process" perspective that Lavoie (correctly) perceives as underlying those statements.

The truth is that there was, among most economists (Austrian, Marshallian, or Walrasian) in the early twentieth century, a superficial, shared understanding of markets that submerged important distinctions that would become apparent only much later. In this shared understanding, there coexisted elements of appreciation for dynamic market processes and elements of appreciation for the degree of balance—the degree of equilibrium—held to be achieved by markets. To be sure, the Mengerian background of the Austrian version of this common understanding pointed unquestionably to the predominance of the process view, while the Walrasian version of this common understanding pointed consistently toward a strictly equilibrium view, but these conflicting signposts were simply not seen at the

time. Mises' earlier statements, while they indeed adumbrated the process elements central to the Austrian tradition, did not emphasize these elements (and, as Lavoie suggests, a case can be made that for his immediate purposes in 1920, it was not at all necessary for Mises to emphasize these elements) so that when economists such as Lange came to consider the Misesian challenge from their own equilibrium perspective, they failed to recognize how seriously they were misunderstanding that challenge.

What occurred as a result of the vigorous interwar debate was that the Austrians were inspired, not to retreat, but to identify more carefully the aspects of their understanding of market processes that their critics had failed to recognize. This process of increasingly precise articulation was not merely one of improved communication; it was a process of improved self-understanding. It is upon this process of improved self-understanding that I wish to focus in this article. While my own principal concern here is with the gradually developing articulation of the modern Austrian position, we should recognize at the same time that the debate was contemporaneous with a parallel process of the development of a more consistently articulated Walrasian/neoclassical position. While it would probably be an exaggeration to see the calculation debate as significantly responsible for the development of a more explicit neoclassical perspective, it seems quite plausible to see the Lange-Lerner position in the calculation debate as at least a significant episode in that development.

What occurred, then, in the quarter century following Mises' original paper on socialist calculation is that a single, blurred picture of the market, common to most economists, came to be resolved into its two separate, distinct, and well-focused components. The one component came to be perceived as the completely static general equilibrium market model; the second component came to be perceived as the dynamic process of entrepreneurial discovery. It was in the course of the debate that it gradually became apparent to the Austrians—but not to their opponents in the debate—that their position represented a critique of socialism only because and to the extent that markets under capitalism indeed constitute such a dynamic process of entrepreneurial discovery. Lavoie has himself put the matter as follows: "I have concluded that the Austrian economists have learned much by 'living through' the calculation debate. Because they have had to cope with criticisms in past debates, they now

have much better, clearer ways of putting their arguments."[5] My contention is that what the Austrians learned was more than a technique of exposition; they learned to appreciate more sensitively how their own tradition understood the market process.

We may distinguish several distinct (but, of course, related) lines of development that occurred during this gradually improved articulation of the Austrian position. First, there was development in the positive understanding of the market process. Second, there was development in understanding the "welfare" aspects of the market process (in particular, in understanding the social function of economic systems or the nature of the "economic problem" facing society). Third, there was development in understanding the role of prices in grappling with this now—better-understood "economic problem" facing society. I will be discussing each of these lines of development in this article. (There were, of course, parallel developments in neoclassical economics in regard to the positive understanding of markets in equilibrium, in regard to appreciation for the welfare properties of general equilibrium, and in regard to the role of equilibrium prices in promoting complete dovetailing of decentralized decisions.)

Simultaneous Levels of Economic Understanding

My story of the developing articulation of the modern Austrian perspective is complicated, especially in regard to the calculation debate, by the circumstance that from that perspective, there appear *three* distinct levels of economic understanding in regard to the price system. It may be useful for me to spell these out at this point. They are, respectively, (1) the recognition of scarcity, (2) the recognition of the role of information, and (3) the recognition of the role of discovery.

1. The foundation of economic understanding consists, of course, in the recognition of scarcity and of its implications. At the individual level, the recognition of scarcity informs individual allocative, economizing activity. In society, the phenomenon of scarcity implies the social benefits that arise from a price system that translates the relative scarcities of particular resources or products into a price structure that encourages correspondingly effective "economic" utilization of these scarce resources by potential users, whether producers or consumers.

2. A deeper appreciation for the social usefulness of a market price system stems from the insight that prices may be efficient means of communicating information from one part of the economy to another. Where prices do in fact fully reflect the bids and offers made by market participants throughout the market, such prices afford a highly effective system of signals that obviate the need for the transmission of detailed, factual information to decisionmakers. If the source of supply of an important raw material has suddenly been destroyed, the jump in its market price will effectively convey the impact of this disaster to potential users, with great rapidity. Those who have themselves learned of the disaster do not have to inform potential users that it has occurred; the price rise suffices.

3. Finally, and building upon these two previous levels of economic understanding, the modern Austrian perspective decisively draws attention to the manner in which the price system promotes alertness to and the discovery of as yet unknown information (both in regard to existing opportunities for potential gains from trade with existing techniques and in regard to possibilities for innovative processes of production).

The complications introduced by Austrian recognition of the simultaneous relevance of all of these levels of economic understanding should be fairly obvious. From the vantage point of today's explicit modern Austrian position, it is clear that full appreciation of the social benefits provided by the price system involves all three of these levels of understanding. That is, while an understanding of the social *consequences* of scarcity need not involve understanding of the subtleties of information and discovery, Austrian recognition of the way in which the market price system effectively *grapples* with the scarcity confronting society depends very much upon the recognition of the function that prices play in communicating existing information, and of the function that prices play in alerting market participants to hitherto unglimpsed opportunities. On the other hand, however, neoclassical economics, which certainly recognizes the role of the price system in contending with scarcity, is likely to refer to this role without any recognition of the discovery process of the market (and, until recently, without recognition of the role of the market in communicating information). Because the earlier Austrian statements in the calculation debate did not distinguish between the various levels of economic understanding, and did not emphasize the discovery process upon which their own understanding of the market depended, it was quite easy (for the

Austrians themselves as well as for onlookers) to believe that the Austrian critique of socialist calculation indeed proceeded from an understanding of how markets work that was shared by their neoclassical opponents. This was particularly the case because Mises found himself, in the earlier stages of the debate, contending with proponents of socialism who seem not at all to have understood the social problems raised by the phenomenon of scarcity, at the most fundamental level.

It was only after more competent economists—who *did* understand the economic problem created by scarcity—came to argue that Mises' reasoning failed to establish his case, that the Austrians were compelled to articulate more carefully the basis of their understanding of the market process (and, hence, their contention that the socialized economy is unable to provide any counterpart to that process). Thus, Mises refers specifically to H.D. Dickinson and Oskar Lange as two socialist writers on the calculation problem who did appreciate the economic problems involved.[6]

It is against the background of these complications that I turn now to consider, in somewhat greater detail and in more systematic fashion, the developing self-awareness on the part of the Austrians that came to be induced by the various stages of the economic calculation debate. As I have suggested, I will pay separate attention to developments (a) in the positive understanding of how markets work, (b) in understanding the welfare and normative aspects of the economic problem facing society, and (c) in understanding the role of prices in helping deal with that economic problem.

The Market as a Process of Discovery

With the benefit of hindsight, we now understand that in the Austrian view of the market, its most important feature is (and was) the dynamic entrepreneurial-competitive discovery process. We know now that, for Mises, the idea of a price that does not reflect and express entrepreneurial judgment and hunch is virtually a contradiction in terms. (It is for this reason that Mises rejected Lange's contention that socialist managers may be able to take their bearings from—and to calculate on the basis of—centrally promulgated nonmarket prices.) We know now that for Mises, the description of states of market equilibrium is mere byplay[7]—the description of something that will never in fact occur and that provides us with little of direct relevance to real-

world conditions (conditions that at all times display the characteristics of markets in disequilibrium). We know now that for Mises, competition is an entrepreneurial process, not a state of affairs.[8] We know these matters because they have formed a central theme in Misesian economics since the publication of *Nationalökonomie* in 1940. And we have every reason to agree with Lavoie and others that these insights were, at least implicitly, an integral element in the Austrian heritage from before World War I. (Surely it is for this reason that Schumpeter's views on competition are so similar to those of Mises and Hayek.)

But, despite all this, it must be acknowledged, after a careful study of Mises' 1920 paper, that a first reading of that paper might easily lead to a quite different conclusion. It might easily be concluded from a reading of that paper (and of the corresponding passages in Mises' 1922 original German edition of *Socialism*) that the central feature in Mises' appreciation for markets was their continual ability to generate prices that, to a reasonable extent, approximated their equilibrium values. In his discussion of how market values of commodities enter into economic calculation, it does not seem important to Mises to point out that such market values may be seriously misleading.[9] He does at several points emphasize that "monetary calculation has its limits," its "inconveniences and serious defects,"[10] but the weaknesses that Mises identifies seem to consist almost exclusively in the inability of money prices to capture the significance of nonpecuniary costs and benefits and in the measurement problems arising out of the fluctuations in the value of money. He does not draw attention to the possibility that disequilibrium money prices may inspire market participants to make responses that are mutually inconsistent (e.g., an above-equilibrium price may inspire producers to offer goods that buyers will not buy at that price) or that cause them to overlook opportunities for mutually gainful trade (e.g., where a commodity is being sold at different prices in different parts of the same market). It might easily appear to the superficial reader that Mises was satisfied that market prices are (subject to the limitations to which he refers) reasonably accurate expressions of relative social importance; and that it is this that constitutes the achievement of markets that could not be duplicated under socialism. Under "the economic system of private ownership of the means of production," Mises asserts, "all goods of a higher order receive a position in the scale of valuations in accordance

with the immediate state of social conditions of production and of social needs."[11]

It is true that Mises already in his 1920 paper drew attention to the special problems generated by *changes* in the basic data, with respect to which economic calculation is called for. Thus, it might be argued that for Mises in 1920, a central achievement of the market is its ability to inspire entrepreneurial alertness to such changes, so that, perhaps, his appreciation for the market did, after all, recognize it as "discovery procedure." But it seems difficult to make this claim. Certainly, we can feel confident that Mises in 1920 would have accepted the insight that markets inspire entrepreneurial discovery; but he did not, in his 1920 paper, refer to the problems raised by changing data in a way that presented markets as being essentially on-going processes of discovery. His references to change were merely in order to point out that, although a newly socialized economy might well usefully take its bearings from the patterns of production that had characterized the previously prevailing market economy, changes in underlying conditions and goals would rapidly render those patterns obsolete and inefficient.[12] These brief references by Mises would not prevent a reader from concluding that Mises believed that markets are continuously close to equilibrium, even in the face of changing data. This failure to draw attention to the market as a process of discovery seems to exist in all of Mises' writings published before *Nationalökonomie*.

But in his 1940 *Nationalökonomie* (later to be translated and revised to become *Human Action*), Mises emphasized the importance of seeing the market as an entrepreneurial process with unsurpassable clarity. By that year, Hayek, too, had drawn explicit attention to the problems of equilibration that are somehow, to some degree, apparently successfully overcome in the course of market processes.[13] Moreover, by 1940, Hayek was, like Mises, pointing out that some of those who were arguing in the thirties for the possibility of socialism based on centrally promulgated nonmarket prices were guilty of "excessive preoccupation with problems of the pure theory of stationary equilibrium" and failed to understand how real-world markets are likely to have the advantage in regard to the rapidity of "adjustment to the daily changing conditions in different places and different industries."[14]

There seems to be little doubt that what led Mises and Hayek to emphasize these dynamic aspects of markets at the close of the thirties was the position taken up by their opponents

such as Lange, Lerner, and Dickinson in the calculation debate. Where Mises' original statements were directed at those who were completely innocent even of the most fundamental level of economic understanding (involving at least an appreciation for the implications of scarcity), his challenge had now been picked up by competent economists—but economists whose understanding of the market was limited by "preoccupation with equilibrium theory." It was in restating their case in the face of the arguments of these economists that the Austrians were led to ma explicit some of the "process" elements in their understanding of market which they had hitherto not been impelled to emphasize.

This developing process of greater self-awareness among the Austria continued during the forties. Mises' contribution in this period consisted his revision and translation of *Nationalökonomie* into *Human Action*. It this latter statement of his vision of the market process that was to have to most far-reaching influence on the further development of the Austrian view. It was this magisterial work that presented a dynamic interpretation of t market process in a manner so emphatic and clear as to render it henceforth impossible to overlook the profound differences between the Austrian a the mainstream-neoclassical perspectives.

But it was Hayek who, in two celebrated papers during the forties, articulated certain key elements in the Austrian view in an exceptionally lucid a seminal fashion. In the first of these papers, "The Use of Knowledge in Society" (1945), Hayek drew attention to the role of the market in communicating information. In doing so, he explicitly linked his discussion with the socialist calculation debate. (I will return later in this article to further consideration of the part this paper has played in the crystallization of the modern Austrian position.) In the second of these two papers, "The Meaning of Competition" (1946), Hayek was able to enunciate with great clarity the Austrian understanding of what competition really means and how the contemporary mainstream developments in treating competition in terms of a perfectly competitive state of affairs must be deplored as obscuring understanding of how markets work.

To treat competition exclusively as the perfectly competitive state of fairs, Hayek pointed out, is to confine attention exclusively to states of complete adjustment, to states of equilibrium. But to do this is already *to assume* "the situation to exist which a true explanation ought to account for as the effect of the competitive process."[15] In other words, Hayek was in

this second paper *attributing to dynamic competition the central role in providing a true explanation of how markets generate tendencies toward mutual adjustment of decentralized decisions*.

There seems no doubt that Hayek was led to these insights concerns the severe limitations surrounding the usefulness of the notion of perfect competition by his experience with the proposals of the proponents of "competitive socialism" during the thirties. It became very clear that the illusion transplanting competition to the environment of the socialized economy could have made its appearance only as a result of the mistaken belief that the role of competition in markets is best portrayed by the model of perfect competitive equilibrium. Indeed, there are rather clear signs that Hayek's sights concerning the competitive process were developed as a result of calculation debate. Thus, in his 1940 essay, "Socialist Calculation III: The Competitive 'Solution'," Hayek pointed out that preoccupation with equilibrium analysis had led the socialist economists to misunderstand the role of competition. Apparently, Hayek, wrote, "the concept of perfect competition . . . has made them overlook a very important field to which their method appears to be simply inapplicable." This important field includes much "machinery, most buildings and ships, and many parts of other products [that] are hardly ever produced for a market, but only on a special contract. This does not mean that there may not be intense competition in the market for the products of these industries, although it may not be 'perfect competition' in the sense of pure theory."[16] This passage is not as explicit in its understanding of the problems of the perfectly competitive model as Hayek's 1946 paper, but this passage is clearly pointing toward this latter paper—and it has clearly been motivated by the effort to dispel the misunderstandings of the proponents of "competitive socialism." And from the "Meaning of Competition" (1946) to "Competition as a Discovery Procedure" (1968) was but a small step for Hayek.[17] Thus, the linkage between the unfolding of the calculation debate and Hayek's most advanced statement concerning the market as a process of discovery seems not merely eminently plausible, but quite unmistakable.

The Unfolding of the Discovery View

What seems to have been the case is something like the following. The earlier Austrians were simply not aware of their own implicit acceptance of a process view, rather than of an

equilibrium view, of markets. One is not always aware that one is speaking prose or, perhaps more to the point, one is not always aware that one is breathing. If Jaffé found it necessary to "dehomogenize" the economics of the Walrasian, Jevonsian, and Austrian schools,[18] this was not merely because outside observers failed to recognize the important distinctions that separated their respective views, but also because leading protagonists of these schools failed to do so as well. Consider the following statement—one is tempted to describe it as an astonishing statement—made by Mises in 1932:

> Within modern subjectivist economics it has become customary to distinguish several schools. We usually speak of the Austrian and the Anglo-American Schools and the School of Lausanne. . . . [The fact is] that these three schools of thought differ only in their mode of expressing the same fundamental idea and that they are divided more by their terminology and by peculiarities of presentation than by the substance of their teachings.[19]

Clearly, the major opponents of Austrian economic theory were, in 1932, perceived by Mises not as being the followers of Walras or of Marshall, but as being the historical and institutionalist writers (as well as a sprinkling of economic theorists) who rejected marginal utility theory. Mises lists these opponents as including Cassel, Conrad, Diehl, Dietzel, Gotti, Liefmann, Oppenheimer, Spann, and Veblen.[20] Against the views of these writers, Mises saw the three major schools of economics united in their support of the subjectivist theory of value, which for Mises was synonymous with "the theory of the market."[21] Differences between an emphasis on process, as against an emphasis on equilibrium, were simply not seen.

Between 1932 and 1940, however, the eyes of Mises and Hayek were, at least partially, opened. The work of the socialist economists, particularly Durbin, Dickinson, Lange, and Lerner, was based on an understanding of how the market system works, which revealed and expressed the perceived primacy of equilibrium in the workings of that system. In confronting the arguments of these writers, based on this understanding, that a parallel nonmarket price system can be devised for the socialist economy, Mises and Hayek felt called upon to draw attention to the primacy of the entrepreneurial/competitive process that they

themselves associated with the market system.

Certainly, the mathematization of mainstream microeconomics that was occurring (as Walrasian ideas became merged with the Marshallian tradition) during this period helped crystallize the equilibrium emphasis that came to characterize mainstream theory. What helped crystallize the process emphasis of the Austrians was the dramatic use made by the socialist economists of mainstream price theory, to refute the Misesian challenge—a challenge that Mises had believed to be based solidly on that very mainstream theory of price. It was this confrontation, one now sees, that provided much of the impetus for Mises' repeated attacks, in later years, against the misuse of mathematics in economics, the misuse of equilibrium analysis, and the misunderstandings embodied in mainstream treatments of competition and monopoly.

It would be a mistake to suppose that the crystallization of the Austrian process view was completed by the early forties. In the writings of neither Mises nor Hayek were the differences between their own approach and that of the neoclassical mainstream clearly stated. I can attest to the difficulties that the graduate student studying under Mises in the midfifties had in achieving a clear understanding of precisely what separated the two approaches. It was extremely tempting at that time to set down the Mises-Hayek approach as simply old-fashioned, imprecise, and nonrigorous. In helping the student appreciate the foundations of the Austrian approach, Hayek's papers cited in the preceding section were especially helpful. But the gradually achieved clarification of the Austrian process approach—a clarification still not completed—can be traced back unerringly to those first reactions by Mises and Hayek to the contentions of the brilliant socialist writers of the thirties.

The Development of Austrian Welfare Economics

With the benefit of hindsight, it is possible to recognize that for Austrians a normative evaluation of the achievements of the market (or of alternative economic systems) must apply criteria for judgment that differ substantially from those that are encountered in mainstream welfare economics. Now it was, of course, during the course of the interwar debate on socialist economic calculation that modern mainstream economics developed those major features that have characterized it since World War II. And it is difficult to avoid the conclusion that the

developments in mainstream welfare economics owe much to clarifications attained during the course the debate. This was probably most especially the case with A.P. Lerner, but appears to be true of welfare economics in general.[22] What I wish to argue in the present section of this article is that in the case of the Austrian approach to normative economics, too, it was the debate on socialist calculation that triggered the process of clarification and articulation.

From the vantage point of the 1980s, it is clear that for Austrians, none of the several notions that economists over the past two centuries have had in mind in evaluating the economic "goodness" of policies or of institutional arrangements can be accepted. Classical ideas that revolved around the concept of maximum aggregative (objective) wealth are clearly unacceptable from the subjectivist perspective. Neoclassical attempts (by Marshall and Pigou) to replace the criterion of aggregative wealth by that of aggregate utility came to grief, for Austrians, in the light of the problems of interpersonal utility comparisons. Modern concepts of social efficiency in resource allocation that seek to avoid interpersonal comparisons of utility, based on notions of Paretian social optimality, are now seen as not being very helpful after all. Not only does the concept of the allocation of social resources imply a notion of social choice that is uncongenial, to put it mildly, to Austrian methodological individualism,[23] it turns out that the concept offers a criterion appropriate almost exclusively to the evaluation of *situations* (rather than processes). Following on Hayek's path-breaking (and now generally celebrated) papers on the role of markets in mobilizing dispersed knowledge, modern Austrians have converged on the notion of *coordination* as the key to normative discussion.[24] As we shall see, this notion fits naturally into the Austrian understanding of the market process. Let us see how this modern Austrian idea developed, in large measure, as a consequence of the economic calculation debate.

In Mises' 1920 statement[25] and its almost verbatim repetition in his 1922 book,[26] Mises was very brief in his assessment of the economic function of market prices. Economic calculation carried on in terms of market prices expressed in money, he stated, involves three advantages. First, "we are able to take as the basis of calculation the valuation of all individuals participating in trade." This permits comparisons across individuals where direct interpersonal utility comparisons are out of the question. Second, such calculations "enable those who

desire to calculate the cost of complicated processes of production to see at once whether they are working as economically as others." Inability to produce at a profit proves that others are able to put the relevant inputs to better use. Third, the use of money prices enables values to be reduced to a common unit. The statement of these advantages refers, it is conceded, to economic calculation as such, rather than to the broader issue of the social advantages of the price system. Nonetheless, they seem to express a view of social "economy" that does not differ from a perspective of social allocation of scarce resources. And the same seems to have been the case with Hayek at least as late as 1935. He defined "the economic problem" as being the "distribution of available resources between different uses" and pointed out that this is "no less a problem of society than for the individual."[27] Here, we have a clear idea of the textbook extension of Robbins' famous criterion of economizing activity, from the level of the individual to that of society as a whole. What is important for my purposes is that both Mises and Hayek were judging the usefulness of the price system in terms that treat society as if it were compelled to choose between alternative patterns of use for given scarce resources.

Yet as early as 1937, Hayek was already beginning to draw attention to the economic problem raised by dispersed knowledge. He asserted that the "central question of all social sciences [is]: How can the combination of fragments of knowledge existing in different minds bring about results which, if they were to be brought about deliberately, would require a knowledge on the part of the directing mind which no single person can possess?"[28] In 1940, Hayek applied this insight to criticize the socialist economists in the calculation debate. The "main merit of real competition [is] that through it use is made of knowledge divided between many persons which, if it were to be used in a centrally directed economy, would all have to enter the single plan."[29] But it was in 1945 that Hayek emphatically denied what he had himself apparently previously accepted—that the economic problem facing society was that of achieving the solution to an optimum problem, that of achieving the best use of society's available means:

> The economic problem of society is thus not merely a problem of how to allocate "given" resources—if "given" is taken to mean given to a single mind

> which deliberately solves the problem set by these "data." It is rather a problem of how to secure the best use of resources known to any of the members of society, for ends whose relative importance only these individuals know. Or, to put it briefly, it is a problem of the utilization of knowledge which is not given to anyone in its totality.[30]

Moreover, Hayek was explicit in linking the economic calculation debate with this rejection of the idea that the economic problem facing society was the simple optimization problem. A year later, Hayek again referred to his new normative criterion in the course of his criticism of perfect competition theory. Referring to the assumption, central to that theory, of complete knowledge of all relevant information on the part of all market participants, Hayek comments that "nothing is solved when we assume everybody to know everything and . . . the real problem is rather how it can be brought about that as much of the available knowledge as possible is used."[31]

Here then we have the strong assertion to the effect that standard approaches to welfare analysis are assuming away the essential normative problem. There can be little question that this assertion has revolutionary potential for welfare analysis. Although these implications for welfare analysis have been all but ignored by the economics profession (despite a fair degree of understanding of Hayek's related interpretation of the price system as a network of information communication), the truth is that Hayek opened the door to an entirely new perspective on the "goodness" of economic policies and institutional arrangements. Instead of judging policies or institutional arrangements in terms of the resource-allocation pattern they are expected to produce (in comparison with the hypothetically optimal allocation pattern), we can now understand the possibility of judging them in terms of their ability to promote discovery. This innovative insight, whose importance seems difficult to exaggerate, was very clearly a direct by-product of the calculation debate.

As we found in regard to the positive recognition of the market as constituting a discovery process, progress in regard to the normative aspects of discovery has not ceased since the midforties. It has been pointed out that emphasis on fragmented knowledge is not quite enough to dislodge mainstream welfare concepts. "Coordination" (in the sense of a *state* of coordination),

while it may refer to coordination of decentralized decisions made in the light of dispersed knowledge, still turns out to involve standard Paretian norms. It is only "coordination" in the sense of the process of coordinating hitherto uncoordinated activity that draws attention to the discovery norm identified through Hayek's insights.[32] Hayek has himself deepened our understanding of the problem of dispersed knowledge as going far beyond that of "utilizing information about particular concrete facts which individuals already possess." He now emphasizes the problem of using the abilities that individuals possess *to discover* relevant concrete information. Because a person "will discover what he knows or can find out only when faced with a problem where this will help," he may never be able to "pass on all the knowledge he commands."[33] All this focusses attention on the more general normative criterion of encouraging the *elimination of true error* in the individual decentralized decisions impinging on the uses made of society's resources. Clearly, this criterion is preeminently relevant to appreciation for the character of market *processes* (in which entrepreneurship and competition spur continual discoveries). Once again, therefore, we see how the socialist calculation debate was responsible for a very fruitful line of development that relates to modern Austrian economics.

The Function of Prices

As Don Lavoie's history of the debate demonstrates, modern Austrian economics is able to comprehend the various stages in the debate with a clarity not hitherto attained. From the vantage point of our present understanding of the nature of dynamic competition, of the role of entrepreneurship, and of the social significance of error discovery, we can see what Mises and Hayek "really meant"—even better, perhaps, than they were themselves able to do at the time they wrote. We can see how the inability of the socialist economists to comprehend what Mises and Hayek really meant stemmed from the mainstream neoclassical paradigm within which the socialist economists were working. And we can see how all this led to confusion and misunderstanding. What is important for the approach in this article is that it was the calculation debate itself that generated those key developmental steps in modern Austrian economics that were ultimately responsible for our contemporary improved Austrian understanding of "what it was all about." We turn now

to review briefly the development of greater clarity within the Austrian tradition, in regard to the function of market prices.

We have already noticed Mises' brief 1920 reference to the role that market prices play in permitting economic calculation in the competitive market economy. It would be easy for a superficial reader of the 1920 paper (and of the 1922 book) to conclude that market prices play their part in achieving social efficiency through confronting each market participant with social valuations that reflect the activities of all other market participants and which, again, impose relevant efficiency constraints on the decisions of each market participant these prices now confront. Clearly, such an understanding of the role of market prices would not be greatly different from that understood by Lange in his now notorious reference to "the parametric function of prices, i.e. on the fact that, although the prices are a resultant of the behavior of all individuals on the market, each individual separately regards the actual market price as given data to which he has to adjust himself."[34]

As Lavoie has extensively documented, the true role of price in the Austrian understanding of the market economy is quite different from that understood by Lange. For Austrians, prices emerge in an open-ended context in which entrepreneurs must grapple with true Knightian uncertainty. This context generates "precisely the kind of choice that stimulates the competitive discovery process."[35] In this context, the entrepreneur "does not treat prices as parameters out of his control but, on the contrary, represents the very causal force that moves prices in coordinating directions."[36]

Mises paints the picture of the entrepreneurially driven market and of the role that prices play within it as follows:

> There is nothing automatic or mechanical in the operation of the market. The entrepreneurs, eager to earn profits, appear as bidders at an auction, as it were, . . . Their offers are limited on the one hand by their anticipation of future prices of the products and on the other hand by the necessity to snatch the factors of production away from the hands of other entrepreneurs competing with them. . . . The entrepreneur is the agency that prevents the persistence of a state of production unsuitable to fill the most urgent wants of the consumers in the cheapest way. . . . They are the first to understand

> that there is a discrepancy between what is done and what could be done. . . . In drafting their plans the entrepreneurs look first at the prices of the immediate past which are mistakenly called *present* prices. Of course, the entrepreneurs never make these prices enter into their calculations without paying regard to anticipated changes. The prices of the immediate past are for them only the starting point of deliberations leading to forecasts of future prices. . . . The essential fact is that it is the competition of profit-seeking entrepreneurs that does not tolerate the preservation of *false* prices of the factors of production.[37]

This 1949 statement (presumably based on a similar passage in *Nationalökonomie*, 1940) appears to attribute a role to prices that differs sharply from that which the superficial reader might have gathered from Mises' 1920 or 1922 statements. The contrast is between the role of prices that are assumed *already* to express with reasonable accuracy all relevant information and the role of prices seen as stimulating entrepreneurial anticipations for the future. It is difficult to escape the conclusion that what led Mises to his more profound articulation of the role that prices play in the entrepreneurial process was his dismay at the Lange-Lerner misunderstandings concerning the "parametric function of prices." His earlier statements concerning market prices had not been made primarily in order to explain the operation of the market system; they had been made in order to illustrate the kind of economic calculation that market prices make possible. These statements were directed primarily at those who fail to recognize how market prices, precisely or crudely, do enforce the constraints implied by scarcity. The experience during the calculation debate not only sensitized Mises to the existence of more sophisticated proponents of socialism, it also sensitized him to the more subtle insights embodied in his own, Austrian, appreciation of the way in which markets work.

In regard to the function of market prices, too (as we found in regard to the appreciation for the discovery procedure of the market and for the emergence of the "coordination" criterion for normative evaluations), the development of the modern Austrian position was not completed in the forties. Hayek's seminal 1945 paper "The Use of Knowledge in Society," which drew explicit attention to the role of prices in communicating information, did

not succeed in distinguishing between two quite different communication functions. It is one thing to recognize the role of equilibrium prices as economic signals which permit instantaneous coordination of decentralized decisions, based on dispersed bodies of knowledge. It is quite another thing to recognize the role of disequilibrium prices in stimulating entrepreneurial discoveries concerning the availability of dispersed information (whose existence had hitherto escaped relevant attention). The statements of both Mises and Hayek during the forties, stimulated by the calculation debate, betray sure signs of appreciation for this latter role. But precisely because of Hayek's pioneering and carefully presented insights into the first role (that relating to the signalling function of equilibrium prices), it is doubtful if he came to recognize the sharp distinction that today's Austrians would surely wish to draw between the two roles.[38]

Be this as it may, the modern Austrian recognition of prices as *stimulating discovery* must be seen as a further development in an unfolding series of advances that must surely be judged as having been set in motion, in significant degree, by the calculation debate.

The Continuing Debate

It would be a mistake to believe that the calculation debate has ended. Lavoie has stated the main purpose of his work as being "to rekindle the fires of the calculation debate."[39] There are signs that a new round in the debate is indeed called for. From the perspective of the present article, these signs must be read as calling for restatement of the Austrian position with even greater clarity and sensitivity. The appearance of an important paper by Richard R. Nelson exemplifies this need.[40] Nelson's critique of the market and his implied (moderate) defense of central planning were written with a fairly extensive familiarity and understanding of the Austrian literature in the calculation debate. Nonetheless, it is this writer's opinion that Nelson's paper betrays insufficient understanding of the Austrian position. We have seen that the Austrian position has required successive stages of clarification. Nelson's contention illustrates very well how the most recent clarifications—and more still need to be contributed—are vital in this continuing debate.

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[1] Karen I. Vaughn, "Critical Discussion of the Four

Papers," in L.S. Moss, ed., *The Economics of Ludwig von Mises: Toward a Critical Reappraisal* (Kansas City, Kans.: Sheed and Ward, 1976), p. 107.

[2] Don Lavoie, *Rivalry and Central Planning: The Socialist Calculation Debate Reconsidered* (Cambridge, England: Cambridge University Press, 1985).

[3] No claim is being made here that Professor Lavoie will accept this explanation, or, indeed, that he will accept my view that no contradiction is involved.

[4] See Lavoie, *op. cit.*, p. 26, where he maintains this despite acknowledging that there "is always, of course, the potential danger that I have illegitimately read modern Austrian notions into the earlier Austrian contributions."

[5] Lavoie, *op. cit.*, pp. 26f.

[6] L. Mises, *Human Action* (New Haven: Yale University Press, 1949), p. 702n.

[7] Mises, *op. cit.*, p. 251.

[8] Mises, *op. cit.*, pp. 278f.

[9] See L. Mises, "Economic Calculation in the Socialist Commonwealth," translated in F.A. Hayek, ed., *Collectivist Economic Planning* (London: Routledge and Kegan Paul, 1935), pp. 97ff.

[10] *Op. cit.*, pp. 98, 109.

[11] *Op. cit.*, p. 107.

[12] *Op. cit.*, p. 109.

[13] See F.A. Hayek, "Economics and Knowledge," *Economica*, 1937; reprinted in *Individualism and Economic Order* (London: Routledge and Kegan Paul, 1949).

[14] F.A. Hayek, "Socialist Calculation III: The Competitive 'Solution,'" in *Individualism and Economic Order*, p. 188.

[15] F.A. Hayek, "The Meaning of Competition," in *Individualism and Economic Order*, p. 94.

[16] Hayek, "Socialist Calculation III," pp. 188f.

[17] See F.A. Hayek, *New Studies in Philosophy, Politics, Economics, and the History of Ideas* (Chicago: University of Chicago Press, 1978), chapter 12.

[18] W. Jaffé, "Menger, Jevons, and Walras De-Homogenized," *Economic Inquiry* (December 1976).

[19] Mises, *Epistemological Problems of Economics* [1933] (Princeton, N.J.: Van Nostrand, 1960), p. 214.

[20] Mises, *Epistemological Problems*, p. 215.

[21] *Ibid.*, p. 207.

[22] See also T.W. Hutchison, *A Review of Economic Doctrines*

1870–1929 (Oxford, England: Oxford University Press, 1953), chapter 18; I.M.D. Little, *A Critique of Welfare Economics* 2nd edition (Oxford, England: Clarendon Press, 1957), chapter 14.

[23] For a critique of this concept (and of the way the literature has misused Lord Robbins' concept of *individual* allocation of resources), see J.M. Buchanan, "What Should Economists Do?" *Southern Economic Journal* (January 1964).

[24] See I.M. Kirzner, *Competition and Entrepreneurship* (Chicago: University of Chicago Press, 1973), chapter 6; G.P. O'Driscoll, *Economics as a Coordination Problem* (Kansas City, Kans.: Sheed Andrews and McMeel, 1977).

[25] Mises, "Economic Calculation in the Socialist Commonwealth," pp. 97f.

[26] L. Mises, *Socialism: An Economic and Sociological Analysis* (London: Jonathan Cape, 1936), p. 115.

[27] F.A. Hayek, "Socialist Calculation I: The Nature and History of the Problem," in *Individualism and Economic Order*, p. 121.

[28] Hayek, "Economics and Knowledge," p. 54.

[29] Hayek, "Socialist Calculation III," p. 202.

[30] F.A. Hayek, "The Use of Knowledge in Society," *American Economic Review* (1945), reprinted in *Individualism and Economic Order*, pp. 77f.

[31] Hayek, "The Meaning of Competition," p. 95.

[32] See I.M. Kirzner, "Prices, the Communication of Knowledge, and the Discovery Process," in K.R. Leube and A.H. Zlabinger, eds., *The Political Economy of Freedom, Essays in Honor of F.A. Hayek* (Munich: Philosophia Verlag, 1984); also I.M. Kirzner, "Economic Planning and the Knowledge Problem," *Cato Journal* (Fall 1984).

[33] F.A. Hayek, *Law, Legislation and Liberty, Vol. 3: The Political Order of a Free People* (Chicago: University of Chicago Press, 1979), p. 190.

[34] Oskar Lange, "On the Economic Theory of Socialism," in B.E. Lippincott, ed., *On the Economic Theory of Socialism* (New York: McGraw-Hill, 1964), p. 70.

[35] Lavoie, *op. cit.*, p. 137.

[36] Lavoie, *op. cit.*, p. 129.

[37] Mises, *Human Action*, pp. 332–35 (emphasis in original).

[38] The writer has discussed these issues at greater length in "Prices, The Communication of Knowledge, and the Discovery Process."

[39] Lavoie, *op. cit.*, p. 179.

[40] Richard R. Nelson, "Assessing Private Enterprise: An Exegesis of Tangled Doctrine," *Bell Journal of Economics*, vol. 12, no. 1 (Spring 1981).

Praxeology and Understanding: An Analysis of the Controversy in Austrian Economics

G.A. Selgin

> The law of sufficient reason states the minimum amount of connection and order in the world which is necessary if we are to have a chance to understand and control it. . . . Thus [the law asserts] there is not unlimited possibility present in our world. . . . Whatever occurs, a battle, a change in the government or in the economic system, or the like, it is not true that everything or anything else could have happened. . . .
>
> The principle of sufficient reason obviously cannot be proved objectively; that is, we cannot prove that it was impossible for everything which has happened to have been different, and we certainly cannot prove that the present constitution of the world is such that only certain things will happen and that nothing else can possibly occur. It is rather a postulate of science to satisfy the demand for understanding. . . . By assuming, therefore, that everything has certain determinate relations to certain definite other elements we have a reason for seeking to find them, and the success of science or its progress encourages us to believe that further relations can be discovered if we persist in our search.
>
> —Morris Cohen, *The Meaning of Human History*, pp. 97, 100.

We live in a world full of contradiction and paradox, a fact of which perhaps the most fundamental illustration is this: that the existence of

> a problem of knowledge depends on the future being different from the past, while the possibility of the solution of the problem depends on the future being like the past.
>
> —Frank Knight, *Risk, Uncertainty and Profit*, p. 313.

Austrian economics emerged in rebellion against skepticism. The predominant economic doctrine in continental Europe at the time of its founding, that championed by the German historical school under Gustav Schmoller, rejected the idea of an economic science devoted to the explanation of market phenomena in terms of exact and universal laws. It proposed, instead, historical description and interpretation of social events devoid of any reference to universal or "exact" laws and to "pure" economic theories based on them.

Today, Austrian economics is challenged by skepticism once again. The new threat is not historicism per se, but the unorthodox views of G.L.S. Shackle and his Austrian followers. [1] According to Shackle, the future is unknowable and "kaleidic" (that is, dominated by patternless change). Action in the marketplace, to be rational, requires that actors in the marketplace be able to anticipate the behavior of their fellows. Theory cannot explain why such anticipations should, except by mere chance, be correct. Thus, the idea that action is "purposeful," which lies at the heart of the conventional Austrian approach to economic theory, is questioned, and new doubt is cast upon the meaningfulness of economic science. This has led to a controversy within the Austrian school that is the subject of the present analysis.

Before examining this controversy, it will be necessary to review the methodological tenets of Austrian economics. In particular, it will be useful to examine the method of praxeology, which forms the basis for the Austrian defense of the possibility and validity of "pure" (i.e., universal) economic theory. The investigation will then proceed to analyze the ideas of F.A. Hayek, G.L.S. Shackle, and Ludwig M. Lachmann insofar as they have cast suspicion upon the praxeological approach as it was originally conceived by Mises. Finally, the analysis will turn to the issues of equilibration, coordination, and determinism that occupy center stage in current Austrian debate. It attempts to resolve the conflicts concerning these issues by offering new arguments based on the application of radical subjectivism consistent with the praxeological framework. The article

concludes with a critical assessment of proposed changes in the Austrian "research program."

Praxeology: The Method of Economic Theory

The most conscientious and extensive development of the methodological doctrines of the Austrian school was undertaken by Ludwig von Mises.[2] Mises viewed his efforts as an elaboration and extension of the beliefs of Carl Menger, the school's founder. Menger's views developed during the course of the famous *Methodenstreit*, which pitted him against the antitheoretical doctrines of the German historical school. Lachmann aptly notes that Mises "saw in Menger's distinction between 'exact laws' and empirical regularities the pivot of Austrian methodology."[3] Mises' particular elaboration of the Austrian method, which he called "praxeology,"[4] is still regarded by many Austrian economists as *the* method of the Austrian school.[5]

In refining Menger's ideas, Mises had to confront new opposition in the form of the doctrines of logical positivism. Mises saw in positivism the same epistemological presumptions that were at work in historicism; namely, a denial of the existence of universal and necessary laws independent of concrete historical events. To Mises, this view was grounded in fallacy:

> We are not capable of conceiving a world in which things would not run their course "according to eternal, pitiless, grand laws." But this much is clear to us. In a world so constituted, human thought and "rational" human action would not be possible. And therefore in such a world there could be neither human beings nor logical thought.[6]

Empiricism, beginning with Hume's skepticism and including all of its positivist variants, shares the historicist's denial of necessity. It attempts to salvage the categories of "law" and "theory" by invoking the procedure of induction, i.e., the derivation of theory from the generalization of observed conjunctions of historical events. However, empiricism has yet to solve the "problem of induction." It cannot, on the basis of its own epistemological tenets, offer a satisfactory basis for the assumption that its generalizations apply with equal force to *future* events.[7] Thus empiricism does not provide a true

alternative to historicism. It leaves intact the claim, disputed by Menger and by Mises, that scientific knowledge consists entirely of generalizations "drawn from past experience that could always be upset by some later experience."[8]

In countering positivism, Mises took refuge in Kantian epistemology and especially in Kant's defense of the category of the synthetic a priori. What Mises regarded as crucial in Kant was, however, not Kant's formal analysis of a priori knowledge or his epistemological idealism, but rather his conviction, *contra* empiricism and historicism, that reason could give universal and necessary knowledge—knowledge that was fresh and informative.[9] In the sense in which he applied it in economics, Mises' apriorism did not differ fundamentally from Menger's Aristotelian essentialism.[10]

Praxeology represents an attempt to escape the nihilistic implications of both historicism and empiricism. It affirms the operation of inviolable laws within the realm of human action. It purports to establish the universal validity of these laws by deducing them from the allegedly incontestable truth that people act purposefully, the "axiom of action." Although supposedly irrefutable, this axiom is not merely "analytic," i.e., nonempirical or vacuous. It is based upon the reality of the pursuit of ends and the choice of means for their attainment that distinguishes all mental (and, hence, human) activity.[11] Thus *a priori* to Mises means "independent of any particular time or place." It does not imply independence from all "experience," although it does denote independence from the sort of sensory experience that empiricism and positivism emphasize: "It rests on universal *inner* experience, and not simply on external experience, i.e., its evidence is reflective rather than physical."[12] Sense data alone, on the other hand, could not reveal to us the essential purposefulness of human actions.

Nor is experience of the empiricist variety effective in refuting theories derived praxeologically. Rather, refutation of a praxeological theory requires discovery of a fault in the chain of reasoning employed by the praxeologist. Empirical evidence does not "falsify" a theory, but rather serves to establish the appropriateness of the theory's application to a particular, concrete event.[13]

To meaningfully deny the "action axiom" (i.e., the claim that people act purposefully) is difficult. Denial of the axiom's empirical validity involves a purposeful act on the part of skeptics. It therefore confronts them with the uncomfortable

choice of either conceding the issue or proclaiming that their own disagreement is purposeless. Thus, any denial of the action axiom is self-contradictory.[14] Yet it is neither "empty" nor "arbitrary": it is axiomatic in the sense that distinguishes an *axiom* from a *postulate*. It is epistemologically distinct from the a priori assumptions employed in the hypothetical-deductive procedures of orthodox (neoclassical) economics.[15]

To be sure, Mises would have insisted that all of the lasting discoveries of the classical and neoclassical economists in the realm of pure theory were in fact results of the method described by praxeology; but this was by no means the *acknowledged* procedure of those schools of thought.[16] Neoclassical economics regards even its most fundamental "laws" as contingent or "probable." Indeed, many of its modern theorems are based upon patently false assumptions, some selected for their alleged predictive capacity and all subject to empirical testing and falsification. The fundamental "laws" of praxeology are, in contrast, held by it to be universally valid. They hold with "apodictic certainty."[17]

Mises was heavily influenced by Max Weber as well as by Kant. It was from Weber that Mises took the notion of purposefulness which he made the starting point of praxeological analysis. Mises also adopted Weber's emphasis upon methodological individualism and his insistence upon the necessity and possibility of an entirely value-free (*wertfrei*) science of human action.[18] Using these notions, Mises refined Menger's development of the subjective theory of value.

Mises' extended application of praxeological subjectivism may be viewed as a limited version of the doctrine of epistemological subjectivism or idealism: it maintains that within the realm of human action, there are phenomena—in particular, market phenomena—that exist only by virtue of the consciousness of purposeful individuals. Thus, value, wealth, profit, loss, and cost are products of human thought, having no "objective" or extensive foundation. One cannot imagine their existence or conceive their alteration, except in connection with acts of valuation and choice.[19] (I shall have occasion to insist upon the consistent application of this subjective doctrine later on in this article.) Thus, to explain market phenomena in a manner consistent with its subjectivism, praxeology refers to acts of valuation and choice. However, praxeological subjectivism is also value-free or nonnormative:

> [It] does not pass judgment on action, but takes it exactly as it is, and it explains market phenomena not on the basis of "right" action, but on the basis of given action. It does not seek to explain the exchange ratios that would exist on the assumption that men are governed exclusively by certain motives and that other motives which do in fact govern them, have no effect. It wants to comprehend the formation of exchange ratios that actually appear in the market.[20]

Praxeology is also distinct from psychology. Although it explains market phenomena in terms of individual purposefulness, it does not seek to identify the motivations, thoughts, and ends that give rise to particular purposes and choices. The inability of the praxeologists, as "pure theorists," to identify the ends of acting individuals also prevents them from constructing categories of "economic" and "noneconomic" action. Moreover, it prohibits them from passing judgment on the appropriateness of individual choices. Because praxeology does not judge actions, it is also not in a position to regard any act as "irrational." It recognizes that all acts of choice have meaning to the individual choosers in terms of *some* goal or purpose, however peculiar or ephemeral, that directs their actions: "The idea of an action not in conformity with needs is absurd. As soon as one attempts to distinguish between the need and the action and makes the need the criterion for judging the action, one leaves the domain of theoretical science, with its neutrality in regard to value judgments."[21] This application of subjectivism freed praxeology from psychological or normative assumptions and made it the analysis of the "pure logic of choice." Through it economics could become a means for the discovery of universal truths. Subjectivism was not wanted for its own sake, but as a means toward the Austrian quest for elements of necessity within the sequence of social events.

Ideal Types and "Exact Laws"

Praxeological theories, as understood by Mises, are independent of the particular psychological makeup of individuals. Praxeology does not address the *content* of individual preferences or the particular motives that give rise to those preferences. It is concerned with the pure *logic* of choice.

Concrete individual ends and values have historical but not theoretical significance; that is, they are relevant to all applications of pure theory to particular, historical circumstances, but enter only as auxiliary assumptions in constructing theory itself. Individual ends and calculations undergo continuous inexplicable change and cannot be the subject of anything like "exact laws." In the words of Frank Knight, a non-Austrian defender of the praxeological method, "There are no laws regarding the *content* of economic behavior, but there are laws universally valid as to its *form*. There is an abstract rationale of all conduct which is rational at all, and a rationale of social relations arising through the organization of rational activity."[22]

To distinguish its universally valid content from history, praxeology had to show that its most fundamental theoretical conclusions—its theoretical "hard core"—was not based upon the imputation of some "typical" motivations or values to acting people. For this reason, Mises, while adopting many of Max Weber's methodological prescriptions, regarded the latter's "ideal-type" constructs as unnecessary to the development of pure theory. For Mises, the laws of praxeology did not refer to ideal-typical "rational" or "economic" people, but to acting people *as such*. Only in this way could those laws be universal or, in Menger's word, "exact."

Weber, in contrast, had been unable to accept Menger's notion of exact laws in economics. Thus, he regarded the "law" of diminishing marginal utility and other fundamental discoveries of the pure logic of choice as "pragmatic" rather than necessary truths.[23] Weber considered economic theory dependent upon the assumption of special kinds of action that might in fact only loosely approximate the actions of people in the real world. In particular, Weber referred to a type of "rational man" who was a throwback to the "economic man" of the classical economists.[24] Mises, in contrast, held that such an approach was, first of all "wholly inapplicable to the subjective value theory" and, further, that it failed "to solve the question of the source of this knowledge of 'purely economic' behavior."[25]

A more fundamental problem with the ideal-type approach is recognized by Israel Kirzner in his book *The Economic Point of View*, "It is apparent," Kirzner writes, "that when conformity to an ideal-type must be assumed for the deductions of the propositions of economics, these propositions cease to be logical implications of actions, and economics ceases to be a branch of

praxeology."[26] In other words, economic laws become contingent rather than necessary, and the ideal-type approach fails to provide economic theory with an epistemological basis that frees it from the defects of positivism and historicism.

Alfred Schutz, in his 1932 book, *The Phenomenology of the Social World*, accepted Mises' criticisms of Weber and attempted to incorporate these into his own adaptation and generalization of Weber's method.[27] Schutz proposed an ideal-type for acting man which would possess the universal applicability needed for the construction of pure economic theory. According to Schutz, ideal-types of this sort "do not refer to any individual or spatiotemporal collection of individuals. They are statements about anyone's action, about action or behavior considered as occurring in complete anonymity and without any specification of time or place. They are precisely for that reason lacking in concreteness."[28] Schutz observed, using words taken from Mises, that any principle derived from such constructs is "not a statement about what usually happens, but of what necessarily must happen."[29]

Schutz here stretches the meaning of ideal-type so as to include constructs so "typical" or general that no action can be conceived that does not conform to them. If we so define *ideal-type* to include a type for mankind "as such," then we may conclude that praxeological theories must also be based "exclusively" on the use of ideal-typical constructs.

The significance of Schutz' work to Austrian economics lies not in this semantic innovation but rather in Schutz's use of more *narrow* ideal-types to derive what he calls a "common sense" understanding of social phenomena. This common sense approach is, however, *not* based upon the anonymous ideal-type for mankind "as such." It is, as is readily apparent from Schutz's own discussion of it, a historical, value-laden approach: "In order to explain human actions the scientist has to ask what *model* of an individual mind can be constructed and what typical *contents* must be attributed to it in order to explain *observed facts* as the results of the activity of such a mind in an understandable relation."[30] These models, Schutz continues, "are models of rational actions but not of actions performed by living human beings in situations defined by them."[31]

It is clear that Schutz is describing a procedure that Mises would have regarded as historical (i.e., suitable for examining particular, concrete cases) rather than praxeological. Mises' distinction between theory and history was a sharp one, and I

shall have occasion to discuss it later. What must now be understood is that for Mises, economic theory rests upon a body of certain truths independent of time and place. The presence of such a "pure" theoretical foundation distinguishes praxeology from types of economic analysis that regard even their most fundamental assertions as empirical, i.e., as "historically limited" in nature.

For Weber, in contrast (as Mises interpreted him):

> The difference between [praxeology] and history is considered as only one of degree. . . . They are different merely in the extent of their proximity to reality, their fullness of content, and the purity of their ideal-typical construction. Thus Max Weber has implicitly answered the question that had once constituted the *Methodenstreit* [the famous Battle of Methods in which Carl Menger defended theoretical analysis against the attacks of the historical school] entirely in the sense of those who denied the logical legitimacy of a theoretical science of social phenomena. According to him [praxeology] is logically conceivable only as a special, qualified kind of historical investigation.[32]

In the analysis of history (which for Mises includes most "applied" economics), the use of content-laden ideal types is unavoidable: in order to render meaningful in other than a logical sense the particular acts of persons and the concrete consequences that arise from and in turn influence those acts, one needs to impute to the persons in question a framework of motivations, ends, and imagined means, thus making their behavior *understandable*. This method of historical understanding of *verstehen* (which is the same as Schutz's "common sense" approach to observed facts) goes beyond the logical, necessary aspects of action and attempts to reconstruct the psychological content and orientation of actions. It analyzes actions, not merely by referring to human purposefulness, but by attempting to comprehend the subjective *meaning* attached to actions by the actors themselves. As such, its constructs cannot refer only to the anonymous figure of acting man or man "as such," but instead must refer to preference-laden, idealized individuals.

For Mises, "history" deals with the *concrete* manifestations of action. "For history," he observed, "the main question is: What was the meaning the actors attached to the situation in which

they found themselves and what was the meaning of their reaction and, finally, what was the *result* of these actions."[33] In an important sense, then, the pure theory that forms the heart of praxeological analysis requires a type of subjectivism distinct from the subjectivism needed in historical analysis. Praxeologists, as developers of pure theory, must consider market phenomena without presuming any knowledge of agents' preferences and beliefs. They must view the world, not as "understanding" beings employing "common sense" to interpret a specific historical event, but as theorists in search of the *logical* patterns that underlie the actions of *all* "understanding" individuals.

Of course, even pure economic theory is affected to some degree by considerations of history. But these considerations mainly refer to the problem of whether a certain theory is relevant to a particular historical phenomenon under investigation. Thus, the law of diminishing marginal utility and its immediate corollaries apply with certainty to any historical situation where at least one purposeful individual must dispose of (or sacrifice) multiple units of a good. The Ricardian law of association, in contrast, applies only where there are numerous individuals engaged in exchange, that is, it is a law pertaining to market phenomena, or what Hayek called "catallactics." Other praxeological laws and theories rely upon lengthier chains of reasoning into which a variety of assumptions enter. These are hypothetical-deductive theories: although their starting point is the certain fact of purposefulness, the auxiliary assumptions involved may or may not conform to any particular historical circumstance. Finally, praxeology includes exercises in "conjectural history" in which reference is made to specific institutions (money, central banking), circumstances (monopoly), and policies (tariffs, taxation). Such conjectural histories therefore make use of ideal-type constructs (these constructs, to be sure, never refer to ideal-typical *people*, but only to ideal-type *objects* or *consequences* of action), although their truth follows apodictically wherever all the real-life equivalents of the specified ideal-types are present in a given historical circumstances. Causal-genetic or "evolutionary" theories such as Menger's theory of the origin of money fall into this category of conjectural history.

Praxeologists may sometimes refer to *actual* historical events in order to *illustrate* theoretical results. Here, however, a casual exercise in history proper (and, therefore, a departure from pure theory) is involved. All examinations of particular historical

policies and institutions (e.g., all "applied economics"—which, to be sure, includes most of what economists do) are nevertheless outside the realm of pure theory and necessarily rely upon assumptions about individual motives and values. Thus, actual history, unlike the conjectural histories of the praxeologist, makes use of ideal-type constructs, not only of institutions, policies, and industrial circumstances, but also of acting individuals. It seeks to understand the specific meaning of historical market phenomena by referring to "common sense" interpretations based upon values and goals imputed to the actors involved. The dividing line between "theory" (i.e., praxeology) and history (in Mises' strict sense) is thus marked by the need to employ psychological understanding or "common sense."

"Common sense," however, is not used only by social scientists. Praxeology recognizes it as an essential tool of all people who act in the social world. All entrepreneurial action (i.e., speculative action in the marketplace) requires understanding of other people's motives and intentions: "To know the future reactions of other people is the first task of acting man. Knowledge of their past value judgments and actions, although indispensable, is only a means to this end."[34] Thus, while history and common sense or psychological understanding of people's *past* values and actions are essential for understanding the future, they are not necessarily sufficient. Moreover, entrepreneurship derives only limited practical guidance from praxeology, the "predictions" of which, being simply examples of its conjectural histories, are always qualitative and contingent; they cannot inform us of the actual choices people will make. "The a priori discipline of human action, praxeology, does not deal with the actual content of value judgments. It deals only with the fact that men value and then act according to their valuations. What we know about the actual content of judgments of value can be derived only from experience."[35]

With these considerations in mind, it is possible to state the dilemma at the heart of the present controversy in Austrian economics: If, in fact, "action [in society] *implies* understanding of other men's reactions"[36] and "no action can be planned or executed without an understanding of the future,"[37] then how can praxeology proceed to the elucidation of market phenomena unless it *first* addresses "the main epistemological problem of . . . understanding," *viz.*: "How can a man have any knowledge of the

future value judgments and actions of other people?"[38] The current controversy within the Austrian school is due mainly to the conviction on the part of some Austrians that praxeology must address and resolve this problem of understanding. Otherwise, its theorems must be regarded, not as *necessary* truths about the world, but as empty and arbitrary tautologies referring to a hypothetical society populated, not necessarily by man "as such," but by "understanding man"; not by *homo agens*, but by *homo percipiens* (perceiving man) and, even more crucially, by *homo divinans*—"man who grasps the future."

From Mises to Lachmann: Austrian Revisionism

Hayek

A break from the praxeological approach came with Friedrich Hayek's 1937 essay "Economics and Knowledge."[39] The intention of this essay was ambiguous. Superficially, it appeared to be a critique of neoclassical equilibrium analysis. But it also involved a subtle rejection of the methodological presuppositions of praxeology.[40]

Though admitting that Austrian economics did possess a "formal" component (which Hayek called the "pure logic of choice"), Hayek regarded the meaningfulness and necessary truth of this formal component to be severely circumscribed. Indeed, he viewed praxeology as only contingently applicable to catallactics, i.e., to the elucidation of market phenomena. As far as the social world was concerned, the pure logic of choice was merely a collection of empirically empty tautologies.[41] Praxeology, in seeking "apodictically certain" conclusions, had so drained itself of content as to become useless as an *independent* means for deriving useful truths about reality. Far from relying exclusively upon the fact of purposefulness, applications of praxeology to catallactic phenomena involve unacknowledged auxiliary assumptions about the dissemination and use of *knowledge* by market participants; assumptions "*about causation in the real world*."[42] This is true especially of its conclusions that rely upon the operation of competitive forces with a "tendency toward equilibrium" as their driving force. And where assumptions about causation are involved, these are subject to falsification.[43]

Hayek's allusions to falsification are a special source of ambiguity, for one is never entirely sure whether the implied

empirical analysis is supposed to make use of the crude sense data of positivism or of "common sense" evaluation founded on ideal-types. In a footnote near the end of his essay, Hayek leads us to believe that, despite his references to Popper and to falsification, he in fact has the "common sense" procedure in mind.[44]

The thrust of Hayek's essay is, however, unaffected by the specific type of empirical evidence it recommends. It claims that even pure economics, insofar as it concerns *market* phenomena and not merely the actions of isolated individuals, must be partly an empirical or psychological science rather than a logical-deductive one. It must investigate the meanings attached by individual actors to their situation, and it must examine the particular motivations and stimuli that give rise to their choices. It must become a science, not just of action, but of people's *reactions*, and of how these reactions may reflect the use and dissemination of knowledge. Only in this way can economics solve the riddle as to why acting people "should ever be right."[45] And until it solves this riddle, it cannot say anything certain about market processes.

To put the challenge differently, economic science must establish and examine the mechanisms of *social causation*. It must show that actors in the social world may become reasonably informed of the valuations of other individuals so that they may direct their actions well enough to achieve desired results. Unless this is possible, the formal conclusions of economics, and of praxeology in particular, remain purely hypothetical.[46]

It shall be argued, *contra* Hayek, that the "pure logic of choice" has a great deal to say about the prerequisites for successful action—notwithstanding our ignorance as to the mechanisms of social causation. Moreover, although we shall see that the absence of such causation would have serious implications, it will be argued that Hayek's suggestion that praxeological conclusions need the support of *an explanation* of social causation (that is, of why it should be that people are ever right) is not very good advice after all.

Shackle

While Hayek criticized "formal" theory for disregarding the role of learning, George Shackle chastized it for its neglect of time. It is important to understand that these criticisms are not the same, although the latter may be considered an extension of the

implications of the former. Hayek's critique was largely concerned with the diffusion by the market of knowledge regarding the effects of *past* actions, i.e., its ability to reveal the impact and success of entrepreneurship. Shackle's criticism is much more radical. He concerns himself specifically with the inability of the market to harness and disperse knowledge about the *future*. Thus, he focuses on the failure of formal theory to address the problem of expectations. Moreover, while Hayek suggested the need for economics to explain the possibility of successful (or what we shall later call "coordinating") market actions, he never doubted that the prevalence of such successful action was a *fact*. Shackle, in contrast, has taken just the opposite view.

It is necessary to distinguish two parts of Shackle's critique. First, in what shall be referred to as his "weak thesis," Shackle claims that economic theory neglects the existence of uncertainty. Second, in his "strong thesis," he argues that economic theory cannot deal with the implications of a "kaleidic" future. Only the strong thesis represents a potential criticism of praxeology. It is this thesis that, one may infer, Ludwig M. Lachmann (whose views will be discussed shortly) draws upon in citing the need for praxeology to account for the problem of "divergent expectations."

In expounding his weak thesis, Shackle erects a dichotomy that entirely overlooks the praxeological approach. To Shackle, who implicitly equates "formal" theory with neoclassical theory, the only conceivable basis for pure theory is one that identifies rational action with action that is "fully informed."[47] Thus, formal theory and its body of deduced relationships are relevant, as he sees it, only to the general equilibrium schema which necessarily excludes the passage of time. Shackle therefore presents the following dilemma: "If there is fundamental conflict between the appeal to rationality and the consideration of the consequences of time as it imprisons us in actuality, the theoretician is confronted with a stark choice. He can reject rationality or time."[48] Clearly, this distressing choice results from Shackle's identification of "rationality" with its neoclassical interpretation according to which rational action is action that *achieves* results more or less identical to those prescribed by the allegedly objective conditions of general equilibrium. Praxeology is entirely unaccounted for in this view of things, for it is at once "formal," giving laws and theorems valid with logical necessity, yet fully applicable to a world of time and its corollary,

uncertainty. Indeed, it is only in a world of time and uncertainty that action, the starting point of praxeological analysis, would be possible at all. In a world of perfect certainty and knowledge, individual "actions" would be entirely predetermined. They would be automatic, not purposeful.

Praxeology does not postulate any rigid determinism insofar as *concrete* acts of choice are concerned. The soundness of its deductions is not demonstrated by appeal to forecasting power or its counterpart, empirical falsifiability. Purposeful action involves an ever-present *logical* pattern which praxeology seeks to discover through deduction while avoiding the suggestion that future concrete choices and events in any *scientific* sense be knowable and predictable.

Shackle, on the other hand, cannot conceive of a "pure logic of choice," i.e., of praxeology. He equates formal with "static," unanticipated change with "irrationality." His weak thesis entirely misses the mark insofar as praxeology is concerned. Shackle does not distinguish between neoclassical value theory (based upon the assumption of perfect knowledge and the analysis of a fully determined general equilibrium system of means and ends) and praxeology (which is based upon an analysis of the implications of *action* and necessarily presumes the existence of uncertainty respecting means and ends). Praxeology does not make use of the neoclassical construct that Shackle calls "the rational ideal." Its fundamental basis is a different idea of rationality. According to Mises, this "fundamental thesis of rationalism" is not only consistent with reality but "unassailable":

> Man is a rational being; that is, his actions are guided by reason. The proposition: Man acts, is tantamount to the proposition: Man is eager to substitute a state of affairs that suits him better for a state of affairs that suits him less. In order to achieve this, he must employ suitable means. It is reason that enables him to find out what is a suitable means for attaining his chosen end and what is not.[49]

There is no presumption of perfect knowledge in this doctrine whatsoever. It does not require us to assume that people are infallible. Whether they are or not is a historical problem, not a praxeological one.

Despite these considerations, some Austrian economists are

inclined to believe that the criticisms in Shackle's weak thesis apply to praxeology and not just to neoclassical general equilibrium economics. Thus, Lachmann has accused Mises of omitting uncertainty and expectations from his analytical framework.[50] And other Austrians have adopted the practice of referring to praxeology as "static subjectivism," contrasting it with "dynamic subjectivism." Such terminology blurs the distinction between praxeology (which concerns itself with the analysis of action) and conventional neoclassical analysis (which concentrates on the mathematical description of the conditions for general equilibrium or nonaction).[51] Praxeology recognizes that names and ends are not "given," but are rather objects of continuous, subjective reinterpretation. Within such a framework, hypothetical constructs based upon the presupposition of perfect knowledge and certainty have only limited value.[52]

Now let us pass briefly to Shackles strong thesis: the matter of the kaleidic future. Here what may be claimed against praxeology is not that it fails to recognize the categories of uncertainty, time, and expectations, but rather that it fails to reckon with some of the more crucial implications of these. What praxeology fails to account for (insofar as Shackle's strong thesis is concerned)—and what thereby renders its inferences contingent rather than necessary—is how actors may effectively anticipate the future and, in particular, how they may anticipate future actions of other people, given that the future is "unknowable." If people cannot foretell the future, then even the broader, praxeological idea of "rationalism" (which assumes *some*—more than incidental—capacity for actors in the social world to select means appropriate to their chosen ends) is unfounded. Economics is obliged, in this case, not merely to account for the use and dissemination of existing knowledge (as Hayek would have it), but to explain the possibility of entrepreneurial *prediction*.

Lachmann

A still greater challenge to praxeology is present in the writings of Ludwig Lachmann.[53] Lachmann combines the observations of both Hayek and Shackle to demonstrate what he regards as serious defects in Mises' method.

Lachmann accepts Hayek's description of praxeology as essentially formal and tautological, requiring for its fruitful

application to catallactics supplementary hypotheses regarding the use and dissemination of knowledge. Thus, he views Hayek's 1937 essay as "an attempt to set Mises straight."[54] Nevertheless, Lachmann does not entertain empiricist views regarding the need for falsifiable conclusions. Instead, he adopts an unambiguously Schutzian, ideal-type approach, and stresses the need for the economic theorist to build his analysis upon assumptions as to the *typical* thought patterns and choices of acting people.[55] Thus, for Lachmann, too, economic theory cannot refer merely to *homo agens* and the incontestable fact of purposefulness. Instead, it must abandon its claims to universal validity and become a branch of history and applied sociology much as Weber had understood it. The pure logic of choice is supplemented by *verstehen* or "common sense" as a theoretical method, which is to serve in the identification of the means by which agents in the real world adapt their actions to match the ever-shifting preferences of their fellows.

Lachmann's most significant innovation, however, is his broadening of Hayek's thesis to allow for consideration of the implications of Shackle's kaleidic future. Alfred Schutz maintained that people could successfully employ understanding ("common sense") in anticipating the future actions of their fellows. While both Mises and Hayek implicitly endorsed this conclusion, Shackle refused to acknowledge a "common sense" solution to the problem of choice under uncertainty.[56] Purposefulness, in Shackle's view, is a chimerical notion: Choice is an entirely haphazard process and, therefore (contrary to the praxeological view), it merely appears or is presumed to be rational. Lachmann's embrace of the doctrine that the future is kaleidic thus leads him to doubt the value of praxeology, dependent as it supposedly is upon the assumption that the market harbors a "tendency toward equilibrium."

The particular problem Lachmann emphasizes is that of "divergent expectations." Hayek had stressed the importance of knowledge dissemination in expediting the market process, pointing out the need for market participants to be able to *learn* about the preferences of their fellow human beings and to adjust their actions accordingly. Knowledge dissemination in this context might refer simply to the existence of market signals of profit and loss, the "criteria of success" by which the market judges attempts of agents to understand each other's wants. The problem of "divergent expectations" is more fundamental, for even if the market involves an adequate means for the dispersion

of knowledge regarding the appropriateness of *past* actions, the learning involved is not a substitute for, and is in fact useless without, knowledge of the *future*: the "guidance" provided by profit and loss signals is cold comfort in a society marked by kaleidoscopic change. In short, there does not exist in the market any known "criterion of success" that can inform entrepreneurs *ex ante* of the future composition of consumer demands, i.e., of the composition of *plans* and *expectations*. Praxeological conclusions, it follows, are therefore applicable not to acting man or even to perceiving man but only to anticipating man, *homo divinans*. The first task of economics, then, must be to show that real people are of this species. Otherwise, its theories are of doubtful value.

Equilibration and Coordination

Central to the current controversy in Austrian economics is the debate concerning whether or not the market harbors a tendency toward equilibrium. The skeptical position, represented by Lachmann, is that no such tendency exists. It is opposed in particular by Kirzner, who attempts to defend the more traditional, praxeological position.

In this section, an attempt is made to show that there is a strictly logical sense in which action may be said to be equilibrating (rather than disequilibrating), which may be interpreted as implying a tendency toward equilibrium in markets with freely adjusting prices. However, the view defended here contrasts sharply with those of both Kirzner and Lachmann, who are criticized for adopting an analytical framework that is not consistently subjective. The praxeological notion of *equilibration* defended here is also distinguished from the empirical or "common-sense" notion of *coordination* suggested by Hayek, according to which the relevant "tendency" for theorists to be concerned with is one in which the "expectations of the people and particularly of the entrepreneurs will become more and more correct."[57]

To give equilibration a praxeological status is one thing; to show that it is a notion useful in drawing conclusions concerning the efficacy of particular economic arrangements and policies is another. The latter task is undertaken in the second part of the section. The conclusion reached is that, with reference to the purely logical concept of equilibration, it is possible to derive many fundamental results concerning conditions that promote

successful action of the sort that Hayek had been so anxious to uncover.

Equilibration

In an autarkic economy composed of a single individual, or in any isolated exchange, all action is equilibrating in the *ex ante* sense; that is, it is expected by the actors involved to lead to the removal of felt uneasiness. In this context, "disequilibrating" action (again viewed in the *ex ante* sense) is impossible; it is the logical equivalent of "irrational" action. For the solitary individual, a tendency toward equilibrium means a tendency for action to systematically eliminate perceived sources of uneasiness. The continuing existence of action is proof that equilibrium proper is never achieved. It is equally proof that it is constantly being striven for. In the case of voluntary exchange between two individuals, equilibrium proper may be said to exist when there is no longer any basis for mutual *profit* (from the point of view of the actors) so that exchange ceases. This "final state of rest," to use Mises' terminology, is the relevant notion of equilibrium in the context of binary exchange. Equilibration in this context means a process by which opportunities for mutual profit are eliminated.

Things are more complicated in the marketplace where there are numerous individuals and indirect exchange. Here, the question of equilibration must address the influence of individual actions upon those not directly involved. In this case, a "tendency toward equilibrium" must be defined in terms of the categories of *entrepreneurial* profit and loss. The tendency is one in which entrepreneurial profits and losses are made to systematically disappear.

The praxeological notion of equilibration applied in catallactics can be summarized as follows: entrepreneurial profit and loss are subjective phenomena, having no "objective" basis outside of the minds of market participants. The praxeologist cannot, therefore, conceive of these phenomena apart from actions of market participants that at once imply imagination of and response to the phenomena in question. Thus, for every profit "opportunity," there corresponds an action that eliminates the opportunity (or proves that it was illusory).

Even where there is monetary calculation, only the event of an entrepreneur taking action allows us to distinguish (praxeologically) profits from compensation for opportunity costs

and from the pervasive phenomenon of rent. It is necessary, therefore, for praxeology, when dealing with the unhampered market, to treat entrepreneurial profit opportunities as the unique products of the subjective valuations and understanding (*verstehen*) of actors who will seek their exploitation. Upon the fact of action, these "imagined" or "understood" (rather than "perceived") profits are, logically and temporally, destroyed. Thus, action leads to the systematic elimination of entrepreneurial profit and loss; it is *equilibrating*. Wherever there is action, there is an imagined profit opportunity. Where there is no action, there are no such imagined opportunities; and where there are no imagined profits, there is no action—that is, viewing things in a dynamic context, there is no basis for the modification of plans.

It must be stressed that equilibration makes no reference to the state of knowledge of market participants. The fact that new information constantly provokes imagination or acknowledgment of new profits and losses (and, hence, their renewed elimination) is recognized by praxeology. Nevertheless, this fact does not contradict the fact of equilibration: it only means that equilibration never ceases and is never replaced by a state of equilibrium proper. This is not to say that questions of knowledge acquisition are unimportant; only pure theory does not address these problems, which have to do with the question of *coordination*. So far, we have not claimed that equilibrating actions generally lead to *desired* or *anticipated* results.

In discussing market phenomena, praxeology does not group commodities according to any "objective" or technological qualities. When it speaks of apparently identical goods bearing different prices, it assigns the discrepancy to a difference in services offered by the goods or by circumstances of their sale or else it must refer to entrepreneurial actions that, in an unhampered market, eliminate the discrepancy. In other words, praxeology recognizes price discrepancies among *identical* goods only to the extent that such discrepancies may be identified with subsequent acts of successful arbitrage. In the same manner, entrepreneurial profit opportunities in general are ephemeral phenomena, formed in the imaginations of enterprising people and *defined* by the very actions that "eliminate" them.

It follows that praxeology must refrain from grouping the services of enterprising people according to "objective" standards, referring to earnings differentials as entrepreneurial profit. It instead assigns these differentials to the category "rent

to labor services." Such rent may be said to include an element of profit only insofar as it actually gives rise to imitation by other individuals or to replication by the entrepreneur in question. As each such process of "profit seeking" ceases, remaining money surpluses (differences between money outlays and money receipts) are once again to be viewed as rent or other elements of compensation for opportunity cost. If, however, actors subjectively see in this surplus an element of profit or loss (by way of their imagination or understanding and the use of monetary calculation), they act again to replicate the profit or to eliminate the loss; if they do not so act, it means that neither profit opportunities nor available losses are understood to exist. Every entrepreneurial action therefore begins with the subjective imagination of a profit opportunity (or belief that a loss may be avoided) and ends with the destruction of the imagined opportunity. This, to repeat, is what praxeology means when it asserts that all action is "equilibrating," i.e., that action leads to the systematic elimination of profit and loss.

According to praxeology, competition involves the identification of what had previously been regarded as service rent as "profit" and the resulting efforts to replicate the profit. If, following a series of competitive processes, monetary surpluses still accrue, a renewed sequence of entrepreneurial acts may or may not follow. The important fact is that these surpluses are subjectively (and hence praxeologically) identified with "service rents" or "costs" except when action redefines some portion of them as entrepreneurial profit and thereby proceeds to replicate (and, thus, to eliminate) that profit. It is a mistake to confuse profit with monetary surplus and to describe competition and the tendency towards equilibrium in terms of the "whittling away" of the latter. This procedure depends upon an objective definition of entrepreneurial profit; it looks upon it as an ideal-typical or empirical category to be identified historically by appeal to psychological understanding. In doing so, it confuses the "common sense" point of view adopted by historians and by entrepreneurs themselves with that view of things that is essential to the drawing of conclusions regarding the *necessary* implications or "pure logic" of action. So far as praxeology is concerned, if markets are unhampered (for example, by "rent-seeking" activities), there can be no "unexploited" profit opportunities or lacunae in the competitive process.

Kirzner, Lachmann, and the "Tendency toward Equilibrium"

Entrepreneurs succeed or fail in generating monetary surpluses to the extent that they succeed or fail in anticipating consumer actions. These actions are not predetermined by an unchanging set of preferences. According to praxeology, preferences do not exist at all apart from acts of choice. It follows that all entrepreneurial action is, as this article has insisted, not merely speculative, but *imaginative*. This is true even for "mere" arbitrage (meaning arbitrage as understood by the business community).[58] There is no listable set of profit opportunities (the basis for additions to monetary surpluses) existing independent of entrepreneurial actions because there are no consumer preferences apart from consumer actions taken in response to entrepreneurial offers. Thus, it is misleading to treat profit opportunities as having an objective basis (i.e., as existing "out there") because it is improper to treat consumer preferences as if they existed apart from realized acts of choice.

Israel M. Kirzner, in his analysis of entrepreneurship,[59] suggests the possibility, in the unhampered market, that action may fail to eliminate entrepreneurial profit and loss systematically, i.e., may fail to equilibrate. This impression results from Kirzner's use of the metaphorical, "common sense" notion of profit opportunities existing "out there" in some objective sense independent of their perception or discovery by enterprising individuals. Kirzner's approach has encouraged the treatment of equilibration as an empirical matter subject to doubt. It is necessary to challenge such interpretations insofar as they confuse necessary features of action with contingent ones and imply that action in the unhampered market may be "disequilibrating" or "insufficiently equilibrating" and that praxeological theorems that presume a "tendency toward equilibrium" are necessarily open to empirical falsification.

The category of objective profit opportunities is praxeologically meaningful only as an *ex post* concept, in which case there is no question of undiscovered opportunities.[60] Yet, the contrary is implied within the framework of Prof. Kirzner, who is led to adopt the metaphorical notion of "objective" profit opportunities existing *ex ante* (and hence capable of going undiscovered) in order to counter the opinion that entrepreneurial innovation is disequilibrating. By treating profit opportunities as existing "out there" and by positing their eventual "discovery," Kirzner is able simply to dismiss the innovative (and allegedly disequilibrative) aspects of entrepreneurship.[61] In doing so, he is drawn uncomfortably

close to the Robbinsian outlook according to which entrepreneurship merely involves the "efficient" administration of *given* means and ends, that is, the exploitation of given profit opportunities.

In fact, it is unhelpful to view, as general equilibrium theorists do, the direction in which market processes are aimed as one that can be represented by a stable system of simultaneous equations. This view entirely neglects human imagination and innovation. It refers to a world where the *means* and *goals* of acting people are fixed, so that a hypothetical "optimal solution" can be defined. This kind of equilibrium solution presupposes definite limits to entrepreneurial achievement. Nonetheless, Kirzner apparently accepts the static concepts of Pareto optimality and general equilibrium as standards against which entrepreneurial actions must be judged. It is only in such a context of "existing" or "given" opportunities that profitable actions can be relegated to the category of "arbitrage," while actions *not* undertaken can be related to "missed" profit opportunities.

More fundamentally, whenever one speaks of unexploited opportunities for profit, one departs from the domain of theoretical science and exemplifies the perspective of the historian or would-be entrepreneur. Kirzner's "profit opportunities" exist in the mind of the analyst but are somehow divorced from "the already constituted meanings of active participants in the social world."[62] In other words, the ends—means framework recognized by the analyst differs from that recognized by market participants. The procedure of injecting an independent "imagination" into one's analytical framework takes its revenge by begging important questions, (1) Why should equilibration be a feature of the real world (where actors may be chronically "unalert")? (2) Do praxeological theories that presume equilibration in fact depend upon the soundness of certain empirical assumptions?[63] In contrast, the praxeological approach does away with the question of "alertness" as it disallows the category of "unexploited profit opportunities."

Subjectively defined, equilibration refers to the systematic exploitation of profit opportunities *as they exist in the understanding of market participants*. It makes no reference to any set of "objective" opportunities as determined by the conjectures of the social scientist. Either the set of opportunities is delimited in this strict, praxeological manner, or it is not scientifically delimitable at all.

The claim that all action is equilibrating does not imply that actors are ever actually in a state of equilibrium proper. The concepts "equilibrium" and "disequilibrium" have for the praxeologist a purely heuristic significance. Theorists wishing to explain a process of market price adjustment require a framework upon which to hang the components of their analysis. Thus, they adopt a terminological expedient: they refer to the outmoded price, a price that has become incompatible with changes in the apprehended ends—means framework, as a "disequilibrium" price. The appropriate price, that which ineluctably replaces the disequilibrium price as a consequence of actions manifesting the revised understanding of means and ends, is labelled the "equilibrium" price. The process of price adjustment can only be comprehended by viewing it as a dynamic process of prices which are at once equilibrium prices in relation to those that they have replaced and disequilibrium prices in relation to those that will follow. Because individuals' understandings of ends and means are in constant flux, prices undergo constant revision. But their adjustment is always in the direction of, and never away from, equilibrium, so long as it reflects free entrepreneurial acts. As each price adjustment is itself a vehicle of information about means and ends, it follows that the adjustment of one price may lead to the obsolescence of others. The statement that action is "equilibrating" merely refers to the logical proposition that action continuously accounts for changes in the imagined framework of means and ends, i.e., changes in the structure of imagined profit opportunities.

Ludwig M. Lachmann, who questions the claim that the market harbors a tendency toward equilibrium, takes a view just opposite Kirzner's by embracing the Schumpeterian argument that entrepreneurial action is mainly disequilibrating. However, like Kirzner, Lachmann attempts to address the issue of equilibration by employing Walrasian (or Robbinsian) criteria. Equilibrium is viewed by him, not as the focal point of a heuristic lens through which all action can be analyzed, but as a determinate state of affairs defined with respect to some objectively given set of exploitable means and ends. Of course, with respect to such a static ideal, many actions (and innovative actions especially) are disequilibrating. They confound achievement of the equilibrium "solution" by altering the set of "existing" means and ends. People's imaginations equip them to extend the boundaries of the possible. Given that this is so, the idea of equilibration or of a tendency toward equilibrium ought

to refer, not to a tendency to approach some *given*, concrete state, but to the tendency of plans to be modified in a systematic way according to the changing imagination, aspirations, and capacities of market participants. Praxeologically, one can abstract from such ever-present change, thereby forcing the means—ends framework to stand still. However, by doing so, one does not succeed in identifying the prerequisites for the achievement of general equilibrium. On the contrary, one *defines* a state of nonaction wherein equilibrium in one sense is already achieved, but, in another, equally meaningful sense is forever out of reach. In other words, the only *meaningful* sense in which action can be said to be equilibrating is the dynamic one which assumes continually changing means and ends and the *absence* of equilibrium proper. In contrast to this subjective, praxeological view, Lachmann's position, like Kirzner's to which he is in part responding, is distinctly nonsubjective: entrepreneurship can only be disequilibrating in the main with respect to a nonsubjective, Walrasian, or static vision of some general equilibrium "target."

The praxeological view just presented attempts, where those of Kirzner and Lachmann have failed, to make sense out of the idea of a tendency toward equilibrium while totally rejecting Walrasian criteria and their implications. By adopting a strictly subjective approach, praxeology also immunizes itself from Lachmann's skepticism (insofar as the *logical* validity of its inferences is concerned—the empirical question of coordination must be addressed later on), preserving the apodictic status of its conclusions which rest upon the premise that entrepreneurial action is equilibrating.

To summarize, "general equilibrium" is a moving target. Its location is determined, not by any objective conditions, but by the confines of people's imaginations. In order for the target to be reached, people either must become perfectly dull or they must become perfectly content. In either case, it must be true that they have exhausted their abilities to conceive of new means for the elimination of uneasiness (the general end of all action). So long as people are neither completely dull nor completely content, they must necessarily act. To ask whether general equilibrium can ever be achieved is therefore to ponder the exhaustibility of people's imaginations. It is to wonder whether innovation and unexpected change will disappear. This is an area of inquiry that concerns philosophy of mind and not praxeology, which is concerned with action. All that can be said with

certainty is that people, in acting, employ imagined means to their fullest extent (action is *equilibrating*) and that, if their actions are successful, their imagination and understanding are not based upon illusion and result in increased well-being (action is socially *coordinating*).

Denial of the existence of coordination is in fact the more important part of the current assault upon the praxeological method. We are now prepared to consider this empirical issue. Only first it is necessary to respond to the charge that the praxeological concept of equilibration is "tautological," "empty," and therefore useless as a means for gaining practical knowledge about the real world.

Prerequisites for Successful Action

The concepts of monetary surplus and loss are based on economic calculation using market prices. Such calculation is possible only in an order characterized by exchange, the social division of labor, and private ownership of the means of production. With the aid of monetary calculation, entrepreneurial profit and loss—the stimuli that determine the direction of equilibrative adjustments—become *social* phenomena distinct from the *ex post* categories of psychic profit and loss. Calculation makes possible a link between equilibrating action and entrepreneurs' satisfaction of the wants of others. It allows entrepreneurs to perceive the wants of others as if they were the *means* toward fulfillment of their own *ends*.

Monetary surplus represents a reward to enterprise for the successful satisfaction of consumers. But this *ex post* surplus is not itself to be confused with the *ex ante* concept of entrepreneurial profit: it is a confirmation of the fact that entrepreneurs' imagination and understanding (of means and end, *including* their own, possibly unique, capabilities) were not based upon illusion or incorrect anticipation of the future. Entrepreneurial profits exist, as it were, only at the "margin" of action, not before or after.

The crucial point is that monetary calculation provides essential guidance for entrepreneurial understanding and action. In the absence of such calculation, the imagination of profit opportunities, i.e., entrepreneurial speculation, would indeed become an entirely haphazard process, bearing no meaningful relationship to the state of consumer preferences: "Monetary calculation is the guiding star of action. . . . [Man] calculates in

order to distinguish the remunerative lines of production from the unprofitable ones, those of which the sovereign consumers are likely to approve from those of which they are likely to disapprove."[64]

Without monetary calculation, entrepreneurs would lose vital evidence with which to form their conjectures and would not even be able to judge whether their *previous* conjectures were accurate or not. They therefore would be without means for informed direction of their future actions. It is only when market prices exist that calculation, the meaningful ascertainment of profit or loss, success or failure, is possible. In particular, the entrepreneurial function of subjectively distinguishing "profit" from rents and other factor returns is not conceivable without market prices: "The different sources of income can be separated only by referring to these incomes *as determined by prices on the market*."[65]

Only in this way can an entrepreneur estimate implicit (opportunity) costs and thereby determine that, for example, "he is suffering a loss in his business." Then, "If the loss continues . . . he will be impelled to shift his various resources to other lines of production. It is only by means of such estimates that an owner of more than one type of factor . . . can determine his gains or losses in any situation and then allocate his resources to strive for the greatest gains."[66]

The existence of market prices, which itself depends upon private ownership and exchange of the means of production, is therefore a necessary prerequisite to economic calculation.[67] This is the fundamental conclusion of the praxeological critique of socialism. The necessity (*not* sufficiency) of market prices for entrepreneurial success, including entrepreneurial calculation and understanding, can be ascertained without appeal to other, necessary assumptions regarding the use and dissemination of knowledge. Its truth does not depend on the "alertness" of entrepreneurs in the unhampered market. It derives from consideration of the pure logic of the equilibration process: in the context of market prices, this process *might* promote coordination. Otherwise, an essential ingredient is lacking, for which there are no promising substitutes.

Many other important, practical conclusions of praxeology are based upon the insight that interference with market prices may disrupt enterprise and competition. Such interference acts to lessen the potential for successful entrepreneurial adjustments in the affected markets. Every act of free exchange provides clues to

the preferences and, indirectly, the ends, of actors engaged in the exchange. Market prices convey information reflecting understanding derived through a continuing process of such exchanges. Such prices are essential instruments by which entrepreneurs, employing *verstehen* or common sense, attempt to form judgments of consumer desires using past preferences as evidence.

By the same token, interference with market prices may also corrupt entrepreneurial understanding, causing the disappointment of expectations and fostering discoordination. Any nonmarket price—a price fixed by fiat rather than through voluntary exchange—confronts numerous entrepreneurs, not with potentially useful information, but with a lie; it presents to them a facade of preferences and priorities which in fact have no basis in the valuations of market participants. Consumer uneasiness may even be aggravated by entrepreneurial actions guided by nonmarket prices. Hence, the praxeological concern with this type of government intervention.

Praxeology does not attribute the failure of socialism to its inability to achieve the conditions of static equilibrium: on the contrary, socialism cannot succeed, according to praxeology, because entrepreneurial *action* (which includes also the speculative decisions of central planners) cannot succeed without the aid of market prices. Moreover, praxeology sees interference with or absence of competitive market prices as a key to explanation of the failure of many *particular* market processes. [68] For example, the trade cycle is explained as a phenomena initiated by disruption of rates of interest from their “natural” levels, i.e., the levels that reflect consumer time-preference and that would prevail under a system where banks (including central banks) functioned purely as intermediaries of voluntary savings. An artificially lowered rate of interest and accompanying expansion of credit necessarily leads to the distortion of a wide range of other market prices (by provoking overestimation of the real supply of loanable funds). The *necessary* consequences that arise from this include widespread alteration of profit and loss signals and a greater channeling of entrepreneurial activity into undertakings that eventually prove unsustainable.[69]

In its references to the effects of intervention, praxeology naturally engages in conjectural history. Nevertheless, whenever the described intervention is present, all of the consequences that praxeology attributes to it will follow. It is the task of history

proper to determine whether any actual event corresponds to a certain hypothetical counterpart examined by praxeology. This matter of historical identification is, *contra* Hayek, the only "question of fact" to which praxeological conclusions, including ones that (as we have seen) are relevant to catallactics, need to defer.[70] There is no question here of any need for or possibility of "verification" or "falsification" of praxeological theories either in the manner suggested by positivists or by appeal to common sense.

We have still to deal with the implication, present for instance in Hayek's essay, that the results of praxeology, although varied and profound, are nevertheless "tautological" and, therefore, of no independent, practical significance. Here, it may simply be answered that if, in fact, praxeological results are tautologies, then they are tautologies of great importance. In a sense, they resemble tautologous statements of the sort: $2 + 2 \neq 5$. This statement, one might claim, provides no fresh knowledge of the real world. Nevertheless, it is essential to insist upon its truth whenever anyone is bold enough to deny it. Similarly, the conclusions of praxeology would perhaps be of little value were there not people anxious to defy them, for example, by seeking to avoid the harmful consequences of inflation by means of price controls, by throwing obstacles in the way of rivalrous competition and entrepreneurial innovation, or by advocating socialism as a means for the rational allocation of resources. The demonstration of the inappropriateness of such programs is the prime contribution of (praxeological) economic theory to human welfare. It is a contribution of more than merely verbal significance.

Thus far, we have seen that many praxeological conclusions (relevant to catallactics) *do not* depend upon assumptions about knowledge, alertness, and entrepreneurial understanding; they deal with people *as such* and do not require appeal to common sense or empirical assumptions. We have also seen that, although logically necessary, conclusions derived by praxeology are not intrinsically empty or without practical importance. However, a complete answer respecting this last point cannot be given until the issue of *coordination* is addressed. We have not yet entirely escaped the claim that praxeology may, after all, be useless.

The "Common Sense" of Coordination

As used in this article, *coordination* and *equilibration* are not

synonyms. Coordination, which depends upon the correctness of entrepreneurial expectations, is not a praxeological concept. While we cannot think of free action as nonequilibrating, we can conceive of actions that are noncoordinating. In order to establish whether a particular concrete state of affairs exemplifies coordination or the compatibility of plans, social scientists must resort to the common-sense method of specific understanding employed in historical analysis. They must therefore abandon the strict subjectivism of praxeology and allow themselves to impute specific ends and aspirations to individuals. Then, in order to determine whether the actions of individuals are compatible with one another, they contrast them with an ideal-typical "plan" of their own construction. In other words, they treat the actions of other individuals as means and judge their efficacy with regard to a set of imputed ends.

To maintain that individual plans can be coordinated is to affirm the existence of social causation. The idea that such causation operates is related to the belief that social actions are or may be largely *successful*.[71] Praxeology conceives of a sequence of social events as coordinated insofar as they result mainly in psychic profit rather than psychic loss. The notion of coordination thus becomes a corollary to the praxeological construct of the progressing economy.[72]

But to say that progress actually exists requires an appeal to *understanding*: "Whenever economic history ventures to classify economic evolution within a certain period according to the scheme stationary, progressing, or retrogressing, it resorts in fact to historical understanding [*verstehen*] and does not 'measure.'"[73] There can thus be no question of an answer to the question of coordination in any sense admitting to either "apodictic certainty" or to empirical "falsifiability": psychic profit and loss are subjective, immeasurable phenomena.

A progressing economy requires, first of all, that entrepreneurs are neither so dull nor so content as to never imagine opportunities for profit at all. Otherwise, there would be no innovation or accumulation, and society would settle into the praxeological fiction of the "evenly rotating economy." In such a situation, coordination is complete in the sense that there is equilibrium, but it is obviously not coordination in the sense of compatibility of plans, for the evenly rotating economy presupposes the absence of true plans aimed at the elimination of felt uneasiness. It involves, in place of changing plans, the cyclical mechanical motions of lifeless automatons.

Ignoring the extreme case of the evenly rotating economy, coordination requires also that there be adequate entrepreneurial *foresight*; an ability to anticipate future change and to thereby avoid psychic disappointment. Here is where expectations enter into the analysis. It is also where the doctrines of Shackle and Lachmann assert themselves concerning the kaleidic character of the future.

In a world in which the future is truly kaleidic, coordination and its counterpart, economic progress, are not possible. Action in such a world, even in the unhampered market, leads not to "spontaneous order," but to chaos. Speculation becomes a matter of sheer guesswork, useless and counterproductive—and this will be the case even where there is a freely functioning price system. Under such conditions, action cannot truly be said to be "purposeful" at all, for actors' belief that they are able to achieve their purposes can only be an illusion. Praxeology would in this case be a body of tautologous assertions of academic interest only.

Thus, for example, although the existence of market prices is *necessary* for coordination because it provides the only reliable means for people's actions to be guided by the wants of others, it may not be *sufficient*. It could be that anticipations are generally disappointed, so that wealth does not accumulate. Coordination and its representative, economic progress, will then be impossible even with an unhampered price system.[74] Such possibilities form the crux of the Shackleian challenge to praxeology.

On the face of things, it is easy to sympathize with Kirzner's desire to dismiss the divergent expectations or kaleidic future hypothesis. "Paris," Kirzner observes, "gets fed." This seems to be an appropriate empirical answer to what is in essence an empirical assertion. It might easily be supplemented by a litany of trite observations regarding the accumulation of capital, general improvement of well-being, remarkable scientific and technical achievements, etc., that have been sponsored by the capitalist system. Such a response is also inviting because it suggests that praxeology is not, after all, at loggerheads with historical understanding; that, in general, markets *do* generate order whereas interference tends to have the destructive effects that praxeology predicts. Nevertheless, the response, based as it is upon appeal to common sense, is always vulnerable to rejection. Those who understand by "order" and "progress" something other than what Kirzner has in mind when he refers to

the arrival of food at Paris may freely disagree with him. In so doing, they do not, of course, deny the praxeological notion of equilibration. They merely claim that this notion—and the central role it assigns to the existence of market prices—evade the fundamental issues.

In short, praxeology, having broken away from the "fully informed" schema of neoclassical economics, finds its conclusions challenged by alternative views of precisely the opposite extreme. Its new opponents claim the future to be marked by complete ("radical") uncertainty; a kaleidic future in which action is futile and purposefulness is merely an illusion. [75] If, in fact, this view of reality is correct, then the theories of praxeology are, to repeat Hayek's words, merely "formal" and "tautological." They cannot then tell us anything of practical value, for they are based upon inferences drawn from a faulty premise, namely that qualitative regularity and causality exist in the sequence of social events. The truth, it is suggested, is just the opposite: the future is unknowable; there is no link between it and the past. Expectations are bound, as often as not, to "diverge" and, therefore, to be disappointed. Choice—whether informed by market price signals or not—can only be haphazard under these conditions. Action may make life more and more chaotic. It generates, at best, merely a stationary economy—one with efforts at improvement continually frustrated—and certainly not a progressing economy. It would be just as well if people did not act (i.e., adjust their plans) at all.

Implications of the "Kaleidic Society"

Exponents of the doctrine of the kaleidic society have suggested that the praxeological method presupposes a thesis of historical determinism. They believe that in implicitly rejecting their view, praxeology assumes a rigid link between the patterns of people's actions in the present and their patterns in the future. Such an assumption contradicts the Austrian notion of purposefulness and involves as well a tacit denial of free will.

This representation of praxeology is based upon a serious confusion of its tenets with those of general equilibrium analysis. Moreover, it reveals a failure to appreciate the distinction, recognized by praxeology, between "fatalist" determinism and "activist" determinism.[76] The doctrine of fatalist determinism maintains that the course of social events is beyond human control; its thesis, to the extent that it is accepted, "paralyzes the

will and engenders passivity and lethargy among the human species."[77] There is no place in this doctrine for purposeful action.

Activist determinism refers to "the insight that every change is the result of a cause and that there is a regularity in the concatenation of cause and effect."[78] It is distinct from fatalist determination (and therefore from materialism and from what Karl Popper refers to as the "nightmare" of physical determinism[79]) because it allows for the category of *mental* (or social) causation. People's actions, according to the thesis of activist determinism, are "determined" by the ideas (ends, knowledge, and understanding) they hold. But praxeology treats these ideas as ultimate data; it does not seek to explain them by tracing them back to prior causes. This is how praxeology separates itself from psychology.

What the current critics of praxeology assert is this: If there is *no* regularity or uniformity in human ideas, if the future is marked by kaleidic change, then people cannot anticipate the actions and requirements of their fellows. Speculation therefore becomes haphazard. Action within society, since it necessarily involves speculation about other people's reactions, although it is believed to be purposeful, is vain. Even routine actions presuppose routine behavior on the part of others. All life in society is thus a random, irrational struggle.

This thesis amounts to a denial of mental or social causation or of activist determinism. Praxeology cannot "prove" this denial to be unfounded. It treats the existence of causality, including social causality, as an ultimate given, a priori even of human purposefulness:

> The philosophical, epistemological, and metaphysical problems of causality and of imperfect induction are beyond the scope of praxeology. We must simply establish the fact that in order to act, man must know the causal relationship between events, processes, or states of affairs. And only so far as he knows this relationship, can his action attain the ends sought. We are fully aware that in asserting this we are moving in a circle. For the evidence that we have correctly perceived a causal relation is provided only by the fact that action guided by this knowledge results in the expected outcome.[80]

The questions of coordination and the possibility of progress are one and the same, and both have to do with the existence of social causation. The doctrine that the future is kaleidic, if it means anything at all, means the denial of spontaneous order, coordination, progress, and, fundamentally, social causation, for the first of these are merely manifestations of the last.

No evidence can dispose of the suggestion that the future is kaleidic and that social causation is lacking. Yet current efforts of Austrian economists include attempts to develop a theory of entrepreneurial prediction or understanding that might resolve the problems implied by the uncertainty of the future. This seems to be part of the intent of Rizzo and O'Driscoll in their book *The Economics of Time and Ignorance*.[81] Such work may uncover useful evidence concerning conditions that encourage entrepreneurial success. Nevertheless, it is not likely to satisfy critics who maintain that the future is beyond the grasp of entrepreneurial ability. Any efforts of this new Austrian "research program" to reconstruct praxeology on the basis of a theory of knowledge would in this sense be misguided. The problem is that any explanation of entrepreneurial prediction and understanding must make reference to ideal-typical representations of human thought patterns and preferences (as are employed, for example, in Schutz's work). Such representations already *presuppose* the regularity and uniformity rejected by those who hold the future to be kaleidic:

> If an ideal type refers to people, it implies that in some respect these men are valuing and acting in a uniform or similar way. When it refers to institutions, it implies that these institutions are products of uniform or similar ways of valuing and acting or that they influence valuing and acting in a uniform or similar manner.[82]

Those who consistently believe Shackle's doctrines are bound to view explanations of human understanding that employ ideal-type constructs as unjustified and question-begging.

The only other recourse open to those who seek an empirical or falsifiable refutation of Shackle's thesis is to attempt an explanation of social causation itself; that is, an explanation of how a person's actions may bring about a particular set of responses on the part of other people. To pursue such a course of study would require one to entertain a belief in strict behaviorism. Attempts to develop a theory of social causation

would degenerate into a search for social "responses" to entrepreneurial "stimuli." Were such attempts able to succeed, they could at best provide a basis for a theory, not of people's actions, but of their *reactions*, and would, therefore, encompass a denial of purposefulness. Any such research program must ultimately collapse under the weight of its own self-contradictory presuppositions.[83] But to the extent that it is seriously undertaken by Austrian economists, it would as thoroughly undermine their school's viewpoints as would wholesale adoption of Shackle's views.

Although evidence cannot refute the hypothesis that the future is kaleidic, reason can expose the contradictions that must result from its consistent embrace. Praxeology has employed this approach in the past in criticizing the doctrines of historicism and logical positivism.

The idea that social change is kaleidic implies, as has been shown, the denial of both fatalist and activist determinism. This leaves only the alternative of complete indeterminism: the social events of the future have no necessary connection with those of the past. In such a world, people would have no reason to act. They would have no reason to believe that any particular action (insofar as its success depends upon the valuations of other people) would lead to any particular, desired state of affairs. They could therefore have no basis for preferring one set of actions to another. Such a situation would constitute no less a "nightmare" than Popper's physical determinism. It would, as its proponents suggest, demolish the categories of "order" and "coordination"; but it would also render meaningless the idea of free will. Human will, in order to be useful, must be able to gain some degree of command over its circumstances.

Consistently applied, the doctrine of the kaleidic society must also lead to the abandonment of all quests for knowledge about human action. In the world that it postulates, both theory and history would be useless. People could learn nothing from the past. Moreover, its meaningful investigation would be impossible:

> If that which is becoming were altogether independent of the past and in no way related to it not only would historic events have no connection with each other but we should not have any extended events at all. We cannot speak of any historic process unless there is continuity, unless

> there are elements of identity between the present and the past.[84]

Moreover, "to deny that the past molds the future is to deny that there is any continuity or any process."[85] Thus, the search for theory, i.e., for necessary and universal patterns in human action, would be fruitless.

Oskar Morgenstern also has argued that the assumption of radical uncertainty is incompatible with the pursuit of theoretical knowledge:

> Next to the assumption of complete, unlimited foresight, there must be rejected, too . . . the assumption that there exists no foresight at all. That would mean complete [chaos] in the conduct of men. . . . Such an assumption would make the existence of the economy just as impossible as that of economic theory which, as does all science, has to posit a minimum of uniformity in the world. That there is no kind of foresight would be the equivalent to the assertion that acts of the individuals could not be arranged at all. . . . So it can be maintained that some positive degree of "knowledge" as to future behavior, that is, one with more or less established assumptions about the future, is absolutely necessary for the economy.[86]

All theory presupposes the existence of a degree of qualitative regularity and uniformity in the concrete phenomena of reality. The classification of events and institutions presupposes such a belief; so, indeed, does the very existence and use of language. Thus, it is utterly contradictory for upholders of the doctrine that the future is kaleidic to involve themselves in theoretical discussions, especially when such discussions refer to institutions such as banks or money or to classes of events such as the trade cycle or inflation. Such categories, including all ideal-typical constructs employed in economic history and in the hypotheses of social science, have meaning only by virtue of an appeal to the regularity and continuity of events in the social world. Thus, it is futile to attempt, *pace* Hayek, to explain "why [people] should ever be right." Rather, acceptance of the fact that people can be right is a requirement imposed by the rules of reason themselves. Given this a priori fact, we may proceed directly to consider "why people commit mistakes" without

troubling ourselves with attempts to investigate the actual mechanisms of social causation.

Of course, in making these points, I do not pretend to refute the position of an extreme nihilist who would completely deny a place for causality in the sequence of social events. I merely observe that, to be consistent, such a person would have to refrain from making assertions regarding the value and significance of particular market arrangements. More fundamentally, people who wish to deny that there is causation in the social world need to explain their *own* participation in the market and in the discussions of economic theory.[87]

The logical alternative for believers in kaleidic change who seek to engage in economics is to adopt a tempered version of the kaleidic society thesis. In this case, they might maintain that the future is only *potentially* kaleidic and that history does witness temporary periods of relative stability and even progress. In the midst of such intervals, institutions exist that possess a degree of permanence. Economic theory may deal with these institutions and with the human actions that give rise to them, although it must recognize that its conclusions are never a description of necessary or universally valid truths. This outlook, of course, defines historicism. There is no point in repeating here the familiar epistemological arguments that oppose it.[88]

To summarize: Praxeology cannot refute historicism or any other variant of the thesis that the future is unconnected with the past. It treats the category of causality, including mental and social causality, as a priori. It assumes a world marked neither by perfect certainty nor by kaleidic change and continually diverging expectations. In other words, it takes as given a set of conditions that make *purposeful* human action possible, and it then asks what circumstances hamper, and which ones assist, the likelihood of agents' success. In proceeding in this manner (instead of seeking to actually explain "why men should ever be right"), praxeology takes the only route available to theory that avoids self-contradiction. It adopts as its starting point—but does not try to explain—"the actual persistence of human habits and institutions" that "is one of the great facts of history which we cannot ignore if we are to retain any understanding."[89]

A stalwart might still argue that praxeology, like Euclidian geometry, is purely formal and arbitrary rather than necessarily true. On this view, praxeology may not apply to any actual experience of social reality. But expressing the argument in this manner immediately reveals its absurdity, for to imagine a social

"experience" to which the logic of action does not apply is to imagine away social experience altogether. This is because the idea of "experience" itself presupposes the categories of causality and regularity on which praxeology depends: "In a universe lacking [regularity] there could not be any thinking and nothing could be experienced. For experience is the awareness of identity in what is perceived; it is the first step toward a classification of events. And the concept of classes would be empty and useless if there were no regularity."[90]

So long as there can be meaningful experience of social phenomena, then this experience will be one for which the deductions of praxeology are valid. To imagine otherwise is to imagine a social environment free from meaningful experience altogether. Thinking and acting people cannot consistently regard their world as one in which the laws of praxeology are mere formalities.

Of course, it may be that a world exists in which praxeology would not provide useful knowledge. But this would not be a world in which either purposeful action or economic knowledge mattered or would be possible. The observations of any "nonpraxeological" economics, even if valid, could not serve any useful purpose. Furthermore, theories of "knowledge dissemination" and of the "market process," however informative they may be, can no more "replace" praxeology than they can undermine the doctrine of the (radically) kaleidic society. Nor should they be viewed as prerequisites to the drawing of valid praxeological conclusions.

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[1] For evidence of Shackle's influence, see *Method, Process, and Austrian Economics*, Israel M. Kirzner, ed. (Lexington, Mass.: Lexington Books, 1982).

[2] See *Human Action*, 3rd ed. (Chicago: Henry Regnery, 1966), chapters I–VI; *Epistemological Problems of Economics* (New York: New York University Press, 1981); *Theory and History* (New Haven: Yale University Press, 1957); and *The Ultimate Foundation of Economic Science* (Kansas City, Kans.: Sheed Andrews and McMeel, 1978).

[3] Ludwig M. Lachmann, "Ludwig von Mises and the Extension of Subjectivism," in Kirzner, *Method*, p. 32.

[4] Prof. Lachmann also refers to his own method as praxeology. In this study, the term *praxeology* is used in the narrower sense employed by Mises and Rothbard as well as by Kirzner in *The Economic Point of View* (Kansas City, Kans.: Sheed and Ward, 1976).

[5] Cf. Murray N. Rothbard, "Praxeology: The Method of Austrian Economics," in *The Foundations of Modern Austrian Economics*, Edwin G. Dolan, ed. (Kansas City, Kans.: Sheed Andrews and McMeel, 1976), pp. 19–39.

[6] *Epistemological Problems*, pp. 197–98.

[7] On empiricism and the "problem of induction," see Errol Harris, *Hypothesis and Perception* (London: George Allen & Unwin, 1970), chapters I-IV. Cf. also Hume's *Treatise of Human Nature*, book I, part III, section VI.

[8] *Epistemological Problems*, p. 5.

[9] See Brand Blanshard, *Reason and Analysis* (La Salle, Ill.: Open Court, 1973), p. 82.

[10] See Lawrence H. White, *The Methodology of the Austrian School of Economics* (Auburn, Ala.: Ludwig von Mises Institute, 1984), p. 7.

[11] William James, *The Principles of Psychology* (New York: Dover, 1950), p. 8.

[12] Murray Rothbard, "In Defense of 'Extreme Apriorism'," *Southern Economic Journal* XXIII (3) (January 1957), pp. 314–20.

[13] *Epistemological Problems*, p. 30.

[14] See William P. Montague, *The Ways of Knowing*

(London: George Allen & Unwin, 1925), p. 90: "The truth of a given proposition is proved to be necessary when its contradictory implies self-contradiction." As a general point, it should be noted that the positivist assertion that all a priori statements are either tautologous or meaningless is itself a priori and therefore, by their criteria, meaningless (since it is by no means a tautology). See Blanshard, p. 240. The source of the argument from contradiction is Aristotle's *Metaphysics*, Book Γ, Chapter 3.

[15] *Contra* John B. Egger. See "The Austrian Method," in *New Directions in Austrian Economics*, Louis M. Spadaro, ed. (Kansas City, Kans.: Sheed Andrews and McMeel, 1978), p. 20.

[16] But see Marion Bowley, *Nassau Senior and Classical Economics* (New York: Octagon Books, 1964), chapter I, on Senior's anticipation of the praxeological method.

[17] Richard Langlois says, regarding the notion of "apodictic certainty," that "the post-Humean mind rebels at the hubris of such a claim" ("Austrian Economics as Affirmative Science: Comment on Rizzo" in Kirzner, *Method*, p. 82). According to defenders of praxeology, such "post-Humean" thinking is itself problematic. It involves a denial of necessity and causation that, taken seriously, would lead to the abandonment of all theoretical and historical pursuits. (Cf. Morris Cohen, *The Meaning of Human History*, pp. 64, 101–2). We shall see that the controversy in Austrian economics is a direct consequence of misguided attempts to apply such "post-Humean" thinking to the theoretical science of human action.

[18] See Weber's essay "'Objectivity' in Social Science and Social Policy" in *Methodology of the Social Sciences*, Edward Shils and H.A. Finch, ed. (Glencoe, Ill.: Free Press, 1949), pp. 49–112.

[19] We shall see how this view applies to the concepts of entrepreneurial profit and equilibration in the section "Equilibration and Coordination."

[20] *Epistemological Problems*, pp. 180–81.

[21] Ibid., p. 149. See also Mises, "The Treatment of 'Irrationality' in the Social Sciences," *Philosophy and Phenomenological Research* IV (4) (June 1944), pp. 527–53.

[22] Frank Knight, "The Limitations of Scientific Method in Economics," in *The Ethics of Competition and Other Essays* (New York: Harper Bros., 1935), p. 25.

[23] See Ludwig Lachmann, *The Legacy of Max Weber* (Berkeley: The Glendessary Press, 1971), p. 25.

[24] Thus, in his *Methodology of the Social Sciences*, Weber

writes:

> Pure economic theory . . . utilizes ideal-type concepts exclusively. [It] makes certain assumptions which scarcely ever correspond completely with reality but which approximate it in various degrees and asks: how would men act under these assumed conditions *if* their actions were entirely rational? It assumes the dominance of *pure economic interests* and precludes the operation of political or other non-economic considerations, (pp. 43–44) (emphasis added)

Compare this to Mill's summary of the classical method: "Political economy . . . reasons from *assumed* premises—from premises which might be totally without foundation in fact, and which are not pretended to be universally in accordance with it." (John Stuart Mill, *Essays on Some Unsettled Questions of Political Economy*, 2nd ed. [London: Longmans, Green, Reader, and Dyer, 1874], p. 137).

[25] Mises, *Notes and Recollections* (South Holland, Ill.: Libertarian Press, 1978), p. 122. See also *Epistemological Problems*, pp. 74–79.

[26] *Loc. cit.*, p. 159.

[27] English translation by George Walsh and Frederick Lehnhart (Evanston, Ill.: Northwestern University Press, 1967), pp. 242–45.

[28] Ibid., p. 244.

[29] Ibid., p. 245. Mises refers to Schutz's book in *Epistemological Problems* (pp. 125–26fn.), but proposes to "reserve dealing with [Schutz's] ideas for another work." The promised discussion has never appeared in print.

[30] From the reprint in Maurice Natanson, *Philosophy of the Social Sciences* (New York: Random House, 1963), p. 342 (emphasis added).

[31] Ibid., p. 345.

[32] *Epistemological Problems*, p. 77.

[33] Mises, *Ultimate Foundation*, p. 43 (emphasis added).

[34] Mises, *Theory and History*, p. 311.

[35] Ibid.

[36] Mises, *Ultimate Foundation*, p. 49.

[37] Ibid., p. 50.

[38] Mises, *Theory and History*, p. 311.

[39] Hayek's "Economics and Knowledge" was first

published in *Economica* IV (New Series, 1937), pp. 33–54, and reprinted with revisions in *Individualism and Economic Order* (Chicago: University of Chicago Press, 1948), pp. 33–56. All references are to the reprint.

[40] Hayek only recently made public his rejection of the praxeological method. (See "An Interview with F.A. Hayek," Cato *Policy Report* 5, February 1983, pp. 67.) Nevertheless, he has long maintained that his intention in 1937 had been to show Mises the deficiencies in the praxeological approach.

[41] Compare Mises, *Ultimate Foundation*, pp. 44ff., and *Human Action*, pp. 38–41.

[42] "Economics and Knowledge," p. 33 (emphasis added).

[43] Ibid., p. 55.

[44] Ibid., p. 47fn.

[45] Ibid., p. 34.

[46] This reference to social causation purposefully avoids mention of the element of time. In fact, as will be shown, what social causation actually implies is not merely that people will have the capacity to understand the *past* valuations of other people, but that they will have some insight into the relationship of these valuations to *future* valuations. Only in this way may actors have reason to assume that, given their own actions *A*, some set of reactions *B* will follow rather than an entirely random, unpredictable result. The existence of social causation implies that future social events are in some sense molded by the past. An implication is that there will be a degree of qualitative regularity and uniformity in values and institutions.

[47] G.L.S. Shackle, *Epistemics and Economics* (Cambridge, England: University Press, 1972), p. 91.

[48] Ibid., in the preface. Cf. also "Time, Nature, and Decision" in *The Nature of Economic Thought* (Cambridge, England: University Press, 1972), pp. 71–84.

[49] *Theory and History*, p. 269. Spiro J. Latsis, in his paper "A Research Program in Economics" (*Method and Appraisal in Economics*, Cambridge, England: University Press, 1976, pp. 1–41) is also unable to comprehend the difference between the rationalism of praxeology and that of neoclassical equilibrium analysis. Thus, he describes Mises' principle as one that asserts that "human actions *are adequate or appropriate to the situations in which they occur*" (p. 4, emphasis in the original). In fact, praxeology does not reckon actions as "adequate" or "appropriate." According to it, the actions of a tribal witch doctor are no less rational than those of a modern surgeon. They

are simply guided by different beliefs. Thus, contrary to Latsis's suggestion (p. 7), it is impossible for an agent to act in such a way as to "falsify" the praxeological thesis of rationalism.

[50] "Mises and the Extension of Subjectivism," p. 37.

[51] Of course, discussions of evolutionary processes and other exercises in conjectural history may be viewed as more "dynamic" than investigations in the pure logic of choice, but the latter remain dynamic nonetheless.

[52] Further discussion of the differences between praxeology and neoclassical general equilibrium analysis appears later in this article.

[53] See in particular his "Reflections on Hayekian Capital Theory" (unpublished ms., 1975); "From Mises to Shackle: An Essay in Austrian Economics and the Kaleidic Society," *Journal of Economic Literature* 14 (March 1976), pp. 54–62; and "Mises and the Extension of Subjectivism," op. cit.

[54] Ludwig M. Lachmann, classroom communication.

[55] This point is also stressed in White, *Methodology*, pp. 26–27.

[56] See Roger Koppl, "Alfred Schutz and George Shackle: Two Views of Choice" (unpublished ms., 1982).

[57] "Economics and Knowledge," p. 45.

[58] It is therefore necessary to reject Lawrence H. White's attempt to distinguish between arbitrage and entrepreneurship by suggesting that in the former, profit opportunities may be said to have an "objective" existence. See White's essay "Entrepreneurship, Imagination, and the Question of Equilibrium" (unpublished ms., 1976), p. 4.

[59] Israel M. Kirzner, *Competition and Entrepreneurship* (Chicago: University of Chicago Press, 1973).

[60] While profit opportunities cannot be defined *ex ante* by "objective" criteria (being fundamentally products of entrepreneurial imagination), this does not mean that their successful exploitation *ex post* does not ultimately rest upon appeal to consumer wants. The *success* of entrepreneurial imagination depends crucially upon existence of market prices, which inform entrepreneurial understanding. More will be said about this in later sections.

[61] Lawrence H. White, "Uncertainty and Entrepreneurial Expectations in Economic Theory" (unpublished ms., 1977), pp. 68–69.

[62] *Phenomenology of the Social World*, p. 9.

[63] Thus, even Kirzner is forced to hedge on such

fundamental issues as the "completeness" of the competitive process by remarking (in *Competition and Entrepreneurship*, p. 97) that competition is "at least potentially present" even if entrepreneurs fail to be alert.

[64] Mises, *Human Action*, p. 229.

[65] Murray N. Rothbard, *Man, Economy, and State: A Treatise on Economic Principles* (Princeton, N.J.: D. Van Nostrand, 1962), p. 542 (emphasis in the original).

[66] Ibid., p. 543.

[67] Yet these conditions are not sufficient. Successful calculation also depends on entrepreneurial understanding.

[68] Attempts to explain market phenomena by referring to "divergent expectations" or other uncaused "natural" failures of entrepreneurial understanding are not truly explanations at all.

[69] In his article, "The Role of Expectations in Economics as a Social Science" (*Economica* 14, February 1943, pp. 108–19) reprinted in *Capital, Expectations, and the Market Process* (Kansas City, Kans.: Sheed Andrews and McMeel, 1977), pp. 6580, Lachmann denies that the conclusions drawn by the Austrian theory of the trade cycle follow necessarily from the premises involved in that theory. Lachmann claims that a timely adjustment of entrepreneurial expectations may prevent the usual consequences from arising due to the existence of a market rate of interest (r) below the natural rate (n). Mises, in his reply ("'Elastic Expectations' and the Austrian Theory of the Trade Cycle," *Economica* n.s. 10, August 1943, pp. 251–52) concedes the validity of Lachmann's claim. Nevertheless, properly worded, the theory remains logically valid; its conclusions refer to consequences that arise *if* authorities succeed in promoting investment beyond levels warranted by the supply of voluntary savings (S_V) by way of the issue of created credit (Sc). Now the market rate of interest, r, is the rate that equates the total demand for bank credit, D, with its *total* supply, $S_V + S_C$, so that the market clears. In the absence of created credit, the market rate r equates S_V with D and so is equal to the natural rate, n. The adjustment of expectations described by Prof. Lachmann can only refer to a reduction in D such as is needed to prevent it from exceeding S_V even in the face of the banks' offer of credit at cheaper prices. In other words, the banks' attempt to issue created credit are frustrated. (Alternatively, expectations may operate through the anticipatory raising of prices, so that although the nominal demand for credit rises, there is no increase in real demand.) In either case, the effect is to prevent a

divergence between *r* and *n* from ever occurring. Therefore, the "elasticity of expectations," far from suggesting a possibility wherein a discrepancy between *r* and *n* does not have trade-cycle implications, merely suggests that entrepreneurs may frustrate attempts by banks to create the necessary discrepancy in the first place. The validity of the trade-cycle theory is not affected.

[70] This is not to deny that certain propositions generally granted praxeological status may be seen at some point to depend upon unacknowledged empirical assumptions. Yet it is not the case that the greater part of catallactics is comprised of such propositions merely because they presume a "tendency toward equilibrium." This conclusion is defended in the final section of this article.

[71] See Mises, *Human Action*, pp. 22–27.

[72] An exception is the evenly rotating economy, which is a limiting case, as will be discussed later in this article.

[73] Mises, *Human Action*, p. 251.

[74] Lachmann is led to note, concerning the importance of market prices ("Reflections," p. 129), that "The beacon that had been designed to keep entrepreneurs from straying from the narrow path of convergent expectations turns out, on most nights, to be rather dim." It might be countered that a dim beacon is better than none at all, but this answer will not persuade those who believe that the future is truly kaleidic.

[75] It is respecting the extremes of perfect knowledge (neoclassical schema) and complete uncertainty ("kaleidic society") that Roger Garrison upholds the view of "Austrian Economics as Middle Ground" (in Kirzner, *Method*, pp. 131–138). Garrison notes that these polar views "represent the extreme circumstances under which economic theory is either trivial or impossible. It is on that expansive band between the two poles that Mises' concept of human action . . . has applicability." See also Oskar Morgenstern, "Perfect Foresight and Economic Equilibrium," in *Selected Economic Writings of Oskar Morgenstern*, Andrew Schotter, ed. (New York: New York University Press, 1976), pp. 169–83.

[76] On this distinction, see *Theory and History*, pp. 117–80.

[77] Ibid., p. 178.

[78] Ibid., p. 177.

[79] Karl Popper, "Of Clocks and Clouds," in *Objective Knowledge* (Oxford, England: Oxford University Press, 1972), p. 217.

[80] Mises, *Human Action*, p. 23. See also *Ultimate*

Foundation, p. 20: "All we can say about causality is that it is a priori not only of human thought but also of human action."

[81] New York: Basil Blackwell, 1984.

[82] Mises, *Theory and History*, p. 316.

[83] See Morris Cohen, *Reason and Nature: An Essay on the Meaning of Scientific Method* (New York: Dover, 1978), pp. 334–41.

[84] Morris Cohen, *The Meaning of Human History*, 2nd ed. (La Salle, Ill.: Open Court, 1961), pp. 63–64.

[85] Ibid., p. 64. This is what is implied by the denial of what I have called social causation.

[86] "Perfect Foresight and Economic Equilibrium," in *Selected Economic Writings of Oskar Morgenstern*, Andrew Schotter, ed. (New York: New York University Press, 1976), p. 175.

[87] All discourse, scientific or otherwise, presupposes mental causation: it involves belief that there is an exploitable relationship between our ideas and actions and the ideas and actions forthcoming in our fellows. Through discussion, and theoretical discussion especially, one attempts to *cause* others to *change* their beliefs and actions in some anticipatable manner. This is not simply a metaphorical way of putting things. It appears so only because we are thoroughly ignorant of the causal process involved. Similarly, entrepreneurial actions presuppose social causation. This is the basis for the belief on the part of entrepreneurs that they may successfully predict (understand) and influence the future choices of others.

[88] Cf. Mises, *Epistemological Problems*, chapter 2, and Karl Menger, *Problems of Economics and Sociology* (Urbana: University of Illinois Press, 1963).

[89] Cohen, *Human History*, p. 64.

[90] Mises, *Ultimate Foundation*, pp. 15, 21.

Competition and Political Entrepreneurship: Austrian Insights into Public-Choice Theory

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Public choice can be defined as the application of economic theory and methodology to the study of politics and political institutions, broadly defined. Neoclassical price theory has been one of the principal tools of the public-choice theorist, having been applied to address such questions as why people vote, why bureaucrats bungle, the effects of deficit finance on government spending, and myriad other questions regarding the operations and activities of governments. There has indeed been a public-choice "revolution" in economics. But neoclassical price theory has its limitations, many of which have been investigated by Austrian economists. These limitations have implications for the study of public choice. Namely, if neoclassical price theory is itself flawed, then perhaps its applications to the study of political decision making has produced uncertain results.

In this article, I shall explore two strands of Austrian economics—theories of competition and of entrepreneurship—and their implications for public-choice theory. I do not claim to provide an exhaustive examination of public-choice theory from an Austrian perspective, but only to offer a few insights. The first section notes some limitations of applying the neoclassical competitive model to the study of political decision making. The next discusses the implications of placing more emphasis on the role of political entrepreneurship in the study of public choice. The final section contains a summary and conclusions.

Competition, Entrepreneurship, and Public Choice

One area in which the neoclassical competitive model has been applied by public-choice theorists is the economics of local public finance. There exists a large volume of mostly empirical

research purporting that when metropolitan areas are composed of larger numbers of governments, competition among governments for population and, consequently, tax base induces them to be more cost-conscious, thereby putting downward pressures on government spending (DiLorenzo, 1981a, 1981b, 1982, 1983). Thus, on efficiency grounds, public-choice economists often take the position that more governments within a metropolitan area are preferred to fewer. This is a direct application of the neoclassical competitive model, which holds that more firms in an industry leads to stronger competitive forces. It is also derived from the related structure-conduct-performance (SCP) paradigm of industrial organization theory.

Industrial Organization and Public Choice

The SCP paradigm asserts that a more concentrated market structure is likely to be more monopolist because, in such a setting, the cost of collusion is lower. But this assumption has been called into question by research that constitutes yet another revolution in economic theory—a revolution in the field of industrial organization (Goldschmidt, Mann, and Weston, 1974; Brozen, 1982). One of the significant features of the "revolution" in the field of industrial organization is that many researchers have taken a more dynamic view of the market as a process. Thus, they have moved closer to the Austrian view of the nature of competition. By taking a more dynamic view of how industries evolve over time, economists have learned (or relearned, according to DiLorenzo and High, forthcoming) that an important reason why industries become concentrated is the superior efficiency of one or a few firms. "Dominant" firms can only remain that way by continuing to offer competitive products at favorable prices, in the absence of government-imposed entry barriers. Substitutes and potential entry have placed effective limits on monopoly pricing by firms in concentrated industries (Brozen, 1982). Thus, the traditional antitrust prescription of divestiture to avoid monopolization is now widely believed to be sometimes harmful. Focussing attention on the reasons why industries become concentrated has advanced our knowledge over the days when it was simply assumed that market concentration meant monopolization and "market power."

This shift in research emphasis is welcomed by many Austrians, who for decades have criticized the neoclassical competitive model as almost devoid of behavioral content, given

its emphasis on static equilibrium conditions rather than the process of competition. “Competition is by its nature a dynamic process whose essential characteristics are assumed away by the assumptions underlying the static analysis. . . . Advertising, [price] undercutting, and improving . . . the goods or services produced are all excluded by definition—‘perfect’ competition means indeed the absence of all competitive activities” (Hayek, 1948, p. 96). By viewing competition as a static equilibrium condition rather than as a dynamic, rivalrous process, economists are prone to condemn competitive activities as monopolistic.

These developments in the economics of industrial organization are relevant to the study of public choice. If the neoclassical competitive model—and its derivative, the structure-conduct-performance (SCP) paradigm—are themselves flawed, perhaps the model’s applications to the study of the local government “industry” are also subject to question. I contend that by relying on static, market structure models of the local government “industry,” public-choice economists have often drawn false conclusions. However, by relying on static models, they have not erred in the same direction as the structuralist industrial organization economists. Rather than condemning as monopolist many practices that are inherently competitive, they have done the opposite. By focussing on government structure at a point in time rather than on the dynamic, historical process by which the institutional structure of government evolves, they have sometimes praised as “competitive” government actions that are inherently monopolistic.

Consider, for example, how public-choice economists often interpret U.S. Census Bureau data on local government structure. Among public-choice economists who have studied local government, it is generally agreed that the greater the number of government units in a metropolitan area (the more “fragmented” the governmental structure), the better. Fragmentation creates interjurisdictional competition, which supposedly provides incentives for lowering the costs of service provision. This purportedly lowers expenditures and taxes and also results in higher-quality government services. These conclusions are usually drawn from cross-section data on government expenditure, regressed against several “determinants” of public expenditures, with some sort of proxy for interjurisdictional competition, i.e., number of government units in a metropolitan area. More often than not, the independent variable for government structure reveals that more fragmented metropolitan

areas have lower levels of government expenditure, *ceteris paribus*. These empirical studies are similar to the early empirical work in industrial organization that found a positive correlation between market concentration and profitability. More concentrated metropolitan governments are thought to lead to higher levels of *political* "profits" in the form of higher spending than would otherwise occur.

But just as taking a more dynamic or historical view of industrial market structure can yield different interpretations of the causes of market concentration, it can also change one's view of the meaning of a more or less concentrated structure of local government. Consider the example of off-budget government spending at the state and local levels (Bennett and DiLorenzo, 1983).

Off-budget Spending and the Government Process

Historically, tax revolts and fiscal constraints in the form of statutory or constitutional restrictions on taxing, spending, or borrowing at the state and local levels of government have been met by politicians not by catering to "the will of the people," but, rather, by subverting that will by creating off-budget enterprises (OBEs) that permit them to preach fiscal conservatism by continuing to practice fiscal profligacy. The "solution" politicians have for more than a century applied to the "problem" of taxpayer demands for tax or expenditure restraint is disarmingly simple: Separate corporate entities are created by state and local governments, which could issue bonds that are not subject to the legal restrictions on public debt or even to voter approval. These entities are called a variety of names, including districts, boards, authorities, agencies, commissions, corporations, and trusts. Regardless of their title, an essential feature of all such organizations is that their financial activities do not appear in the budget of the government unit that created them. One distinguishing feature of OBEs is that their operations, at least in theory, are not financed from taxes, but from revenues generated by their activities. Because the taxpayer is not deemed to be liable for the financial obligations of OBEs, voter approval is not required for the debt issued by such organizations and, more importantly, debt restrictions do not apply. However, the idea that off-budget finance should not require voter approval because the projects financed are self-supporting is a myth, for billions of taxpayer dollars are used to subsidize OBE activity

(Bennett and DiLorenzo, 1983). The array of activities undertaken by OBEs is quite large and includes the financing of school buildings, airports, parking lots, recreation centers, courthouses, subways, bridges, tunnels, highways, parks, lakes, sewer systems, sports arenas, electric utilities, race tracks, outer space programs (in California), and housing, to name a few examples. In short, any activities that are undertaken on budget by state and local governments (or by private enterprises, for that matter) are also undertaken by OBEs in every state.

Even if debt restrictions did not exist, politicians would benefit from off-budget activities. The public sector is constrained by numerous regulations designed to protect the public interest. Virtually none of these applies to any OBE. For example, civil service regulations do not apply, so it is easier for politicians to create patronage jobs off-budget; there are no requirements for competitive bidding procedures on contracts, so campaign contributions can be obtained and loyal supporters can be rewarded; the members of the boards of directors of every OBE are political appointees who are not elected or responsible to voters, so that the will of politicians cannot easily be frustrated by a recalcitrant bureaucracy. OBEs are given wide powers by law. They are granted monopoly franchises, may have powers of eminent domain, can override zoning ordinances, are exempt from regulations and paperwork that impose heavy costs on private enterprises, have no legal restrictions on collective bargaining agreements, and are often specifically exempted from antitrust laws regarding price fixing.

Unfortunately, it is impossible to obtain accurate data on the number of OBEs that exist or on their activities. Most states do not keep statistics on their numbers. One thing is known with certainty, however: There are thousands of OBEs throughout the nation, including more than 2,500 in Pennsylvania alone as of 1977 (Schlosser, 1977).

One implication of this research for public choice theory is that the structure of the local government industry at any one point in time does not necessarily reveal how “competitive” government is. Bureau of the Census data on the number of government units in metropolitan areas includes many OBEs, designating them as special districts, public corporations, statutory authorities, and so on. But an increase in the number of such entities often results in a government that is increasingly detached from the consent of the governed, is not subject to direct voter approval at the ballot box, and grants itself

extraordinary powers—even by government standards—of eminent domain, zoning authority, and immunity from civil service, collective bargaining, antitrust, and other laws that others in society must comply with. A strong argument can be made that avoiding taxpayer demands for fiscal restraint is the whole purpose of off-budget spending, which renders government more monopolist. To designate these developments as "competitive" or "efficient" is misleading, at best. But this is precisely the problem public-choice economists experience when applying the neoclassical competitive model to the study of local government (see, for example, Blewitt, 1984).

Efficiency and the Structure of Local Government

Competitive markets are praised by neoclassical economists because, among other reasons, they promote allocative efficiency. Austrian economists, however, have little use for such notions because of their belief that all costs and benefits are subjective. To state that a certain allocation of resources is allocatively efficient and maximizes "social welfare" is to assume that benefits and costs are objective and measurable by some outside observer/social engineer. Moreover, to claim that one allocation of resources is superior to another on neoclassical efficiency grounds requires one to make interpersonal utility comparisons, a sheer impossibility. For instance, if an industry is judged to be producing less than the competitive level, a common policy prescription to promote efficiency is to somehow induce the firm(s) to increase their production (through divestiture, for instance). This may harm the producers since it forces them to do something they did not voluntarily choose to do, but it is said to be efficient because the utility gain to some other group in society—usually called consumers—is said to outweigh the utility loss to the producers.

Policy recommendations based on such efficiency norms often attenuate the rights of political minorities such as "monopolist" producers on the grounds that their utility loss is outweighed by the utility gains of others. This arbitrarily assumes that the property rights of the former group are unimportant. In short, what passes for science is loaded with normative judgments.

There is an alternative (and equally normative) definition of "efficient" institutions that has its roots in Adam Smith's *Wealth of Nations* and embraces the notion of individualist property

rights norms: Those institutions are efficient that facilitate mutually advantageous, voluntary exchange (Buchanan, 1964). From this perspective, a "better" allocation of resources can only be determined by people themselves, not by professional maximizers of social welfare functions. The standard of evaluation is ultimately consent among individuals. Also, according to this perspective, the proliferation of the number of local governments cannot be said to be "efficient," since the growth of government embodies a further reallocation of resources from the private to the public sector. The private sector is the exclusive domain of mutually advantageous exchange. Outside of its role of enforcing and protecting private property rights, all government resource allocation is necessarily coercive in the absence of direct democracy and voting rules mandating unanimous consent. The proliferation of local government units, on- or off-budget, represents an expansion of the domain of rent-seeking behavior, which is necessarily coercive, at the expense of a contracted private sector and of the domain of voluntary exchange.

Public-choice economists typically criticize a consolidated local government structure as monopolist compared to the alternative of a larger number of jurisdictions within a metropolitan area. In many instances, this criticism is probably well grounded. One centralized school district, for instance, is likely to be even more monopolist than if there were several to choose from by "voting with your feet." As George Orwell might have said, all governments are monopolist, only some are more monopolist than others.

However, it is not clear that the relevant alternative to a fragmented government structure within a metropolitan area is a more centralized, monopolist government. Another alternative is a return to private-sector provision of the *private goods* now supplied by local governments: education, libraries, hospitals, airport operation, fire protection, parking lot operation, water supply, police protection, sewerage treatment, parks and recreation, operation of liquor stores, mass transportation, and myriad other activities. One thing all these activities have in common is that no strong case can be made that any of them is a public good. They are all divisible in consumption and exclusion is not costly. Moreover, they are all things that are supplied throughout the country by private businesses as well as by governments, leading one to question the existence of any economic rationale for government provision.

Governments usually grant themselves distinct advantages whenever direct competition with the private sector is permitted (which it often is not) by not having to pay taxes or comply with costly regulations imposed on private enterprises. Thus, these are often money-making operations for local governments that have taken over services that would have alternatively been provided by private businesses. Government imperialism is a more likely explanation than market failure for why these activities are carried out by hundreds of local government jurisdictions. Governments are redirecting resources from the private to the public sector as private firms are either banned by law from competing with government monopolies or are driven out of business because of the special advantages that government service providers have. Viewed in this way, it appears that the public-choice characterization of the "efficient" organization of local government is grossly misleading.

Public Choice and Political Entrepreneurs

Austrian economists often claim that neoclassical economics ignores many important economic phenomena by not sufficiently emphasizing the role of entrepreneurship in the economic organization. Ludwig von Mises broadly defined entrepreneurship to encompass capitalists, workers, consumers, and others: "Economics, in speaking of entrepreneurs, has in view not men, but a definite function" (1966, p. 246). The function of the entrepreneur is to react to (and create) change in the market. The efficiency of markets does not depend upon the equality of price to marginal costs, the familiar equilibrium condition of neoclassical price theory, but, rather, "it depends on the degree of success with which market forces can be relied upon to generate spontaneous corrections. . . at times of disequilibrium" (Kirzner, 1974, p. 6). Entrepreneurship is the engine of economic growth and wealth creation in capitalist economies, for according to Robert Tollison:

> When competition is viewed as a dynamic, value-creating, evolutionary process, the role of economic rents in stimulating entrepreneurial decisions and in prompting an efficient allocation of resources is crucial. . . . [P]rofit seeking in a competitive market order is a normal feature of economic life. The returns of resource owners will be driven to normal

> levels . . . by competitive profit seeking as some resource owners earn positive rents which promote entry and others earn negative rents which cause exit. Profit seeking and economic rents are inherently related to the efficiency of the competitive market process. Such activities drive the competitive price system and create value (e.g., new products) in the economy. (1982, p. 577)

But neoclassical economics does not view competition as a "dynamic, value-creating, evolutionary process." Rather, it is a static equilibrium condition. And in equilibrium, there is no place for the function of entrepreneurship, since in equilibrium, there are no changes in the given data of endowments, technologies, or preferences. By downplaying or ignoring the role of entrepreneurship and of competition as a dynamic, rivalrous process, neoclassical economics has probably underestimated the wealth-creating and welfare-enhancing capabilities of capitalism.

Similarly, by applying the static, neoclassical model to the study of political "markets," public-choice theorists have probably downplayed or ignored the role of *political* entrepreneurship. But this has not led them to ignore the role of entrepreneurship in *creating* wealth and facilitating exchange, as with the study of private markets. The essence of political entrepreneurship is to *destroy* wealth through negative-sum rent-seeking behavior. Thus, adherence to the static, neoclassical model is likely to lead one to understate the beneficial economic effects of private markets while, when applied to the study of public choice, understating the destructive effects of politics.

In much of public-choice theory, interest groups are viewed as entities that coalesce to express a demand for wealth transfers. In seeking political profit, politicians respond by supplying the transfers through legislation and regulation. Politicians are accordingly labeled "brokers" of legislation (Tollison and McCormick, 1981). Thus, just as a perfectly competitive, profit-maximizing firm would cater to consumer demands, politicians passively respond to the wishes of interest groups. But the price theory analogy is not entirely accurate, for in a world of uncertainty, producers are constantly searching for and *creating* profit opportunities by advertising, offering new or different products, and other activities aimed at stimulating the demand for their goods or services. They do not merely respond to changing consumer demands. Similarly, political entrepreneurs

do not just passively respond to interest-group pressures; they also try to stimulate the demand for their "services," i.e., the provision of wealth transfers (Mitchell, 1984). Although it has been relatively neglected in the public-choice literature, Richard Wagner (1966) described the importance of political entrepreneurship in a hypothetical example where interest groups are outlawed.

> Consider farm interests after pressure groups are outlawed. It clearly seems contrary to intuition and common sense to claim that farmers would no longer have [political] activities undertaken to increase their real incomes. For a reconciliation we must turn to the political entrepreneur and observe the impact of the outlawing of lobbying upon his profit opportunities. If a political profit existed before the institutional change [i.e., outlawing lobbying], what reason exists for the belief that such profit will not exist after the change? Clearly, for a reduction in the political profit from farm votes, either voting or organizational rules must be changed. Since the outlawing of pressure groups is unrelated to either of these two features, the profit must still exist after pressure groups are outlawed. Therefore, some political entrepreneur would carry their cause to congress. (p. 165)

Wagner further stated that various institutional arrangements often emerge to promote individual interests when free-rider problems prevent the formation of effective interest groups. For instance, one role of government bureaucracies is to serve the wishes of political entrepreneurs with whom they share a common objective: an expansion of the agency's activity (and budget). Bureaucracies have strong incentives to promote and stimulate a perceived need for their activities—every bureaucracy is a vigorous lobbyist. Peter Woll (1977) noted the importance of bureaucratic lobbying in his book, *American Bureaucracy*:

> The ability of administrative agencies to marshal support in favor of particular programs is often severely tested, and as a result the agencies have frequently created public relations departments on a permanent basis to engineer consent for their

> legislative proposals. It has been estimated that the executive branch spends close to half a billion dollars [in 1971] a year on public relations and public information programs. . . . [A]gencies are expending huge amounts of funds, time, and effort on indirect and direct lobbying activities. (p. 194)

As recent examples of bureaucratic lobbying expenditures, the U.S. Department of Agriculture in 1984 officially employed 144 full-time public affairs persons with a budget of $6.5 million. The entire department, including subagencies, employs 704 people involved in public affairs (Palmer, 1985). The Department of Education had 21 public affairs professionals and a $1.5 million budget; and the Pentagon listed 1,066 full-time public relations employees. Similar programs are sure to be found in other agencies as well.

The effect of political advertising is likely to be public acquiescence in the continued growth of the government wealth-transfer process. Unlike private advertising, political advertising does not foster competition and lower prices by facilitating comparison shopping, for no comparisons are permitted. Governments usually grant themselves statutory monopolies in the goods and services they provide. Nor are there strong constraints on false advertising by government because of the absence of competitive pressures. Few private businesses, for instance, would risk criticizing false advertising by government enterprises for fear of regulatory retribution by the government authorities. Nor can one expect government regulatory agencies such as the Federal Trade Commission to crack down on fraudulent claims made by government itself. Thus:

> Politicians cannot be held liable for their promises. If a hot dog manufacturer's all-meat product turns out to be 30 percent chicken and bread crumbs, he will most likely encounter difficulty with the government, even if consumers buy the product. But when the government's comparable product turns out to be 60 percent baloney, no regulatory agency will take action. (Wagner, 1976, p. 81)

Moreover, the principal function of political advertising "would seem to be to promote acquiescence about the prevailing public policies. The purpose of public advertising would be to reassure citizens that the fact that their public goods are composed of 60

percent baloney indicates good performance" (Wagner, 1976, p. 97). In this way, political entrepreneurship in the form of public advertising facilitates the process of rent seeking.

Another example of political entrepreneurship is tax-funded politics (Bennett and DiLorenzo, 1985). Hundreds of millions of dollars per year are doled out by the federal government to special interest groups including Ralph Nader-type consumer groups, environmentalists, welfare rights lobbyists, civil rights organizations, labor unions, senior citizens organizations, and various conservative political activists, to name a few examples. The funds are obtained through grants and contracts ostensibly for helping consumers, the unemployed, the elderly, minorities, the environment, and so on, but then are diverted (illegally) for partisan politics. In these instances, Congress is directly stimulating the perceived demand for its "services" by giving taxpayers' money to special interests to lobby, campaign, register voters, publish books (as well as op-eds and political training manuals), hold media events, and conduct other forms of partisan politics. Politicians use tax-funded politics to fabricate demands for legislation and government activity to stimulate the demand for their services. Interest groups that receive government funding can be more blatant in their political activities than government bureaucracies can since it is illegal for government employees to engage in on-the-job political activity. And, as Gordon Tullock (1983) pointed out, "interest groups normally have an interest in diminishing the information of the average voter. If they can sell him some false tale which supports their particular effort . . . it pays. They . . . produce misinformation" (p. 71).

In sum, focussing on the role of political entrepreneurship is likely to improve one's understanding of the government process. Demand-side models of the political process (such as the median voter model) can be misleading if they fail to incorporate the fact that political entrepreneurs are experts at fabricating false crises to convince the public to acquiesce in their policy proposals. Voters are rationally ignorant, and much of the information about politics they do receive is propaganda issued by self-serving politicians, interest groups, and bureaucracies. It does not pay to be as well informed about politics as about one's own personal affairs, which permits political entrepreneurs to manufacture a false "will of the people." Joseph Schumpeter (1942) recognized this more than four decades ago: "Human nature in politics being what it is, [politicians] are able to

fashion and, within very wide limits, even to create the will of the people. What we are confronted with in the analysis of political processes is largely not a genuine but a manufactured will. . . . [T]he will of the people is the product and not the motive power of the political process" (p. 263).

Even though private and political entrepreneurship both serve to transmit information, they produce fundamentally different results. The nature of market activity is to enhance people's propensity to truck, barter, and exchange—generally a positive-sum game—and entrepreneurship facilitates this process. By contrast, the nature of most government activity, including political entrepreneurship, is to promote wealth transfers, which is, at best, a zero-sum game. Mancur Olson (1982) provides evidence that such rent seeking is, in fact, a negative-sum game and a major cause of economic stagnation.

Conclusions

Austrian economics and public choice are two of the most exciting areas of economic research. With its emphasis on competition as a dynamic, rivalrous process and the role of entrepreneurship, Austrian economics clarifies how markets work. Public-choice theory has been absolutely revolutionary in focussing attention on how the tools of economics can be employed to better understand how governments work. This article is, if anything, a plea to consider the two research programs as complementary. Economic reasoning can and will be applied to advance our understanding of the political process, but one need not adopt the entire neoclassical economic framework to do so. The two strands of Austrian economics discussed here—theories of competition and of entrepreneurship—offer some insights into the government process that neoclassical economics ignores, at best, and possibly even misinterprets. One implication of this is that the type of public-choice research conducted might take on a different focus. Specifically, it would be a wise investment of intellectual resources to conduct more historical studies of the evolution of political institutions from a public-choice perspective. Public choice *is* often a study of comparative institutions, but economic history is one research approach which has, unfortunately, been relatively neglected by public-choice theorists. There is much to learn from economic and political history from a public-choice perspective that just cannot be captured by regression equations

of the "determinants" of government spending, taxing, and borrowing.

Not only can a careful consideration of the usefulness of Austrian economics to the study of public choice expand our knowledge of government institutions; it can also prevent us from making mistakes. I have claimed elsewhere (DiLorenzo, 1984) that the economics of rent seeking has become confused. One reason for this is the failure to properly distinguish between rent seeking and profit seeking by not viewing real-world competition as a dynamic, rivalrous process. Consequently, some authors have condemned as "wasteful rent seeking" many activities (e.g., competitive advertising, product innovation, research and development, the market for corporate control) that are an essential part of a dynamic, competitive market. This is a step backward in the public-choice revolution, something that might have been avoided by being aware of some of the limitations of the neoclassical competitive model and its applications to public choice.

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Why the Austrians Are Wrong about Depressions

Gordon Tullock

For many years, I have been critical of the Austrian theory of depressions and this led Walter Block to ask me to put my criticisms in print. Since in oral discussions, I am frequently accused of misrepresenting the theory, I asked him to give me a canonical version and he gave me the Rothbard pamphlet, "Economic Depressions: Causes and Cures."[1]

The pamphlet begins by presenting a Ricardian theory which is, of course, the foundation not only of the Austrian theory, but of most modern monetarist work. Rothbard, as I, thinks the Ricardian theory a major step forward, but incomplete. Our differences concern what should be added on to that theory. I shall not here attempt to derive a correct theory of depressions, but simply explain why I feel that the Austrian theory is not a serious contender for that honor.

Before turning to my main criticism, however, I would like to pick three nits. First, Rothbard never explains why the inflation that is part of his theory cannot simply be continued or even accelerated. I understand why Mises without our modern experience thought that it was impossible, but anyone familiar with the present world must realize that inflations can, at least, continue for very long periods of time and reach very high levels of monetary depreciation. As a personal item, I have lived through three hyperinflations and can testify that it is undeniably unpleasant, but not really a disaster.[2] It's the flu, not pneumonia.

The second nit has to do with Rothbard's apparent belief that business people never learn. One would think that business people might be misled in the first couple of runs of the Rothbard cycle and not anticipate that the low interest rate will later be raised. That they would continue unable to figure this out, however, seems unlikely. Normally, Rothbard and the other Austrians argue that entrepreneurs are well informed and make correct judgments. At the very least, one would assume that a well-informed business person interested in important matters concerned with the business would read Mises and Rothbard and,

hence, anticipate the government's action.

My third nit deals with Rothbard's apparent belief that the depression and booms are cyclical. There are statistical tests that will detect cycles if they exist and these have been applied to the historic data. The result of the tests is a random walk rather than a cycle. Since Rothbard urges as one of the strong points of his theory explaining the cyclical nature of depressions and booms, this statistical finding would seem to be of considerable importance to him.

These are nits and not my major objection. My major objection, putting it quite bluntly, is that if the process that Rothbard describes did occur, there would be many corporate bankruptcies and business people jumping out of the windows of office buildings, but there would be only minor transitional unemployment. In fact, measured GNP would be higher as a result.

Suppose, then, the government forces down the rate of interest:

> For business men, seeing the rate of interest fall, react as they always would and must to such a change of market signals: they invest more in capital and producer's goods. Investments, particularly in lengthy and time consuming projects, which previously looked unprofitable now seem profitable, because of the fall of the interest charge. In short, businessmen react as they would react if savings had *genuinely* increased.[3]

This passage deserves a little analysis. First, it should be noted that if the business people are now building more factories than they were before, which is what Rothbard says, then, in fact, savings that are available for building factories must have increased. In fact, they have. What has happened is that the government by inflationary measures is transferring a certain amount of money from the general citizenry into the investment accounts and, hence, the money for building these additional factories is made available.

The second point that must be emphasized is his argument that investments in "lengthy and time consuming projects" are made. It should be noted here that Rothbard may possibly be confused by the Austrian theory of capital which involves a waiting time theory. In fact, most manufacturing processes take relatively little time. There are, of course, exceptions—building

ships, large buildings, wine (if anyone is determined to let it reach its maximum market value), etc.—but mostly what takes the time is building the factory, not the actual production once the factory is completed. Austrians are quite correct in referring to this as a roundabout method of production, but one should not believe that because Henry Ford, shall we say, paid immense amounts of money in the 1920s mechanizing his factory, it actually took a long time for iron ore entering the River Rouge plant to be turned into a model T. The roundaboutness was building the steel mill and the assembly line and then depreciating it.

This matter is of some importance because the interest rate is of great significance in deciding whether or not to build a new factory, buy an expensive machine, etc., but of very little significance in deciding how much to produce in an existing factory. In my own experience as member of the board of directors of a small company, we frequently discuss interest rates at great length when we are considering capital expenditures. I cannot recall the interest rate even being mentioned in any of our discussions of production matters.

Let us assume with Rothbard that, after a while, the government finds itself unable to keep the interest rate low and its shoots up again. Business people, to quote Rothbard, "had overinvested in capital goods and underinvested in consumer products."[4] I am not positive exactly how business people invest in consumer products. Walter Bloch suggests that this phrase "refers not only to retail inventories, but also to actual manufacture and also promotion of items of final consumption."[5] I shall accept that interpretation for what follows.

For our analysis, we shall assume that the interest rate which should have been 5 percent had been forced down to 3 percent although that seems a rather large cut granted the generally quite feeble instruments that governments have for lowering the interest rate. If they have not anticipated the later rise, some businesses will clearly go bankrupt, but let us go through a number of different possible situations.

First, a good deal of the productive capital will in fact have been inherited from the period before the government began to drive interest rates down. This is particularly true with such things as buildings and ships which are long and hard to produce, but it will also be true with much other equipment.[6] There is no reason why this machinery should be particularly

damaged by what has happened, nor is there any reason to believe that there is too much of it under the current circumstances.

The second issue would be those new capital investments made during the period of the artificially depressed interest rate and that have been completed. Let us for this purpose consider only those capital investments that have been made in industries that produce consumer goods and leave the investments in industries producing capital goods until later.

Clearly, the businesspeople who made these investments will lose money; some of them will go into bankruptcy. But this is a sunk cost. There is no reason why this equipment should stop being used. Indeed, there is now more equipment of this sort than there would have been had the government not depressed the interest rate. Thus, the demand for labor to work with it will be higher than it would have been had these investments not been made.[7] What happens is that the products of these industries would have to be sold at a price that covered their operating cost but not their capital cost.

Bankruptcies again would occur, but we would anticipate that as a result of this additional capital equipment and additional production—together with the fact that the material has to be sold at a price that does not cover capital cost (hence, a lower price than had originally been planned)—there should be higher living standards.

We must now consider those factories (factories designed for consumer products) that have not yet been finished when the interest rate rises. Whatever has already been built is once again a sunk cost, a cost that should be ignored in deciding whether or not the machinery or factory should be finished. Thus, if the interest rate went from 3 to 5 percent, most factories that are more than about 40 percent finished would still be completed. The same rule would apply to those special machines that take a long time to build. Once again, bankruptcies and loss of money would be expected, but the additional investment necessary to complete the machinery or the factory would be capable of paying 5 percent.[8]

Rothbard apparently believes that the 1920s was a long period of artificially depressed interest rates.[9] The overwhelming bulk of all capital investment caused by those low interest rates would have been completed by 1929 or, at least, brought close enough to completion so that even under the higher interest rates, finishing it off would be a profitable

operation. The number of factories, apartment buildings, ships, etc. left incomplete because the operation had not gotten far enough along so that it was still profitable to complete them, would have been a fairly small part of the total new equipment acquired in the 1920s. Thus, once again, one would anticipate higher living standards and high employment.

But there would be those factories and machine tools that were less than 40 percent completed and, hence, for which production stopped. This brings us to the producer goods industries. The first thing to be said here is that the producer goods industries are always a fairly small part of the economy. In that small part, however, undeniably a Rothbard, Austrian type of depression would cause a cutback in production and laying off of personnel. Many factories, apartment buildings, and machine tools would be far enough along so that their completion would still be sensible with the new interest rates, and the cutback would not be total, but nevertheless it would be painful.

Note that new investment in equipment for the capital goods industries benefits from much the same effects as the new equipment investments anywhere else. That is, the equipment or factory that had been completed would now be available for production whenever prices rose above the current operating cost. Once again, an outburst of bankruptcies would be anticipated.

That producer goods industries are highly unstable, with booms and depressions that are much more severe than for the rest of the economy, is very well known.[10] Certainly, everybody in those industries knows it. If people in the capital goods industries failed to make their plans for the contingency of a very severe depression, one would be most surprised.[11] Under the circumstances, one might anticipate difficulties in these industries, but one would also assume that everybody in such industries realized that it was a temporary phenomenon and it was only a question of sitting on your hands for a while. Further, one would also assume that the bulk of them had taken precautions against such readily predictable contingencies. After all, these industries are well known to be extremely unstable, and one would assume that both capitalists and skilled laborers who invest in acquiring a position in the industry would have done so with full knowledge of the situation.

The end result of all of this is that we would anticipate that in an Austrian-style depression, there would be a good deal of unemployment in the capital goods industries, but this is, after

all, a small part of the total industrial picture. Of course, such industries would not be able to buy as much in the way of consumer goods as they would otherwise, and this would add to the fall in prices which would have to be absorbed by other industries. Indeed, it would increase the bankruptcy rate. Because of the size of the capital goods industries compared to the rest of the economy, however, the forcing down of prices in other industries made necessary by this unemployment would once again cause bankruptcies but not unemployment.

Consider another way of stimulating investment. Suppose that the government taxed consumer goods and used the money to subsidize investment. Suppose further that after a while, it stopped the subsidy. This is not good policy, but the net effect would be that production after the end of the subsidy would be higher than if no such subsidy had been offered. Indeed, we have a sort of example in the farm program. Among the many effects of this bit of government mismanagement, there has been an increase in farm capital above what would have occurred without the program. If the program were terminated tomorrow, there would be bankruptcies among farm owners, but both *hired* labor and consumers would benefit.

Looked at from the standpoint of ordinary employees in a nonproducer goods industry, the Austrian cycle would mean that their living standard was artificially depressed during the boom period, because funds that they would prefer to spend on consumption were being diverted to investment. During the depression however, their living standard would benefit, first, because with more capital goods, the demand for complementary services (mainly labor) is greater than it otherwise would be and, second, because prices for consumer goods are lower. Laborers would be exploiting the capitalists.

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[1] Although "Economic Depressions: Causes and Cures" appears on the cover of the pamphlet, the title page gives *Depressions: Their Cause and Cure*. Whatever the title, it is published by Constitutional Alliance, Inc., Lansing, Mich. (no date).

[2] I was personally somewhat protected from them since I was an American diplomatic official.

[3] Rothbard, p. 21.

[4] P. 22.

[5] Letter of 5 Jan., 1987.

[6] The factory that I am associated with in Iowa is still

using some machinery which is over twenty-five years old. This is probably typical.

[7] Leftists might disagree. Capital-induced unemployment through labor-saving machines is part of their orthodoxy.

[8] Under modern circumstances, prefabricated factory buildings do not really take very long to erect. Nor is the manufacture of most production equipment a long process. The roundaboutness of investment occurs in the depreciation.

[9] Probably the largest single government action lowering interest rates was the rapid retirement of a sizable fraction of the war debt. For some reason, Austrians never mention it.

[10] As a child in the machine tool center of Rockford, Illinois, who remembers the Great Depression, I can testify to this.

[11] Here again, Rothbard appears to believe that one of the advantages of the Austrian theory of depressions is that it explains why the producer goods industries suffer more in depressions than other industries (p. 25). It does, but so far as I know, so do all other theories of depression except those highly abstract theories that do not look at interindustry impact. In any event, why they are particularly depressed in depressions and particularly booming in boom times is fairly obvious.

“Social Utility” and Government Transfers of Wealth: An Austrian Perspective

David Osterfeld

The Nature of the Free Market

One of the tenets of the Austrian position is that the free market invariably increases “social utility.” If government interferes with the market process, Ludwig von Mises wrote, “it can only impair satisfaction; it can never improve it” (p. 744). The reasoning is as follows. Since any voluntary exchange will take place only when each participant expects to benefit, “the very fact that an exchange takes place,” says Murray Rothbard, “demonstrates that both parties benefit (or more strictly *expect* to benefit) from the exchange.” Thus, since the free market is nothing more than “the array of all voluntary exchange that takes place in the world,” and since “every exchange demonstrates a unanimity of benefit for both parties concerned, we must conclude” that, provided all major externalities have been internalized, as they would be in a world of universal private property, “*the free market benefits all its participants*. . . . We are led inexorably, then,” says Rothbard, “to the conclusion that the processes of the free market always lead to a gain in social utility. And we can say this with absolute validity as economists, without engaging in ethical judgments.” (1956, p. 250).

This statement demands careful consideration in order to understand precisely what is and is not being claimed. In the real world, peoples’ expectations about the future are often mistaken and, hence, businesses suffer losses or go bankrupt and anticipated profits from investments often do not materialize. Further, individuals are often disappointed because their *proferred exchanges* are rejected. Are not both of these cases examples of where the market renders at least one individual worse off and thus refutes the Austrian position that the market

always increases social utility?

Future Expectations

It is certainly true that businesses sometimes go bankrupt and the expected profits from investments do not materialize. But the Austrian claim is that individuals maximize their utility *ex ante*. This is certainly consistent with bankruptcy, unprofitable investments, the purchase of (losing) lottery tickets, etc. This can be easily demonstrated. Assume for simplicity that one has a .5 chance of having an investment yield a profit and a .5 chance of suffering a loss. If the individual believed that a profit would increase *future* utility more than a loss would reduce it, the discounted *present* value of that investment would be positive. This means that, *regardless of the actual outcome*, the decision to invest would increase one's present utility, while the decision not to would reduce it. Thus, the decision to invest would increase one's utility *ex ante*, even if it proved to be a mistaken choice and thus reduced utility *ex post*.

The significant point is that it is not the market, itself, that was responsible for reducing one's utility, but the uncertainty of the future. And this uncertainty, it must be emphasized, is an ineradicable element of nature and is therefore *independent* of any particular economic system.

In fact, since there are gains from trade to be made on the market by enabling others to reduce the risks they face, the market actually works to minimize uncertainty by enabling individuals to purchase insurance against practically any risk imaginable (Rothbard, 1970a, pp. 498–501; Rothbard, 1970b, p. 161).

In short, reduced utility resulting from mistaken expectations about the future is not inconsistent with the Austrian position regarding decisions *ex ante*. Further, such mistakes are due to the uncertainty of the future. This uncertainty is not the result of the market but is inherent in nature (Mises, pp. 105–6; Rothbard, 1970a, p. 5). Finally, it is actually the market process that operates to minimize this uncertainty.

Rejected Offers

But what of the second category of action? Would it not be correct to say that one who had an offer of an exchange rejected

had utility reduced?

Assume for the sake of simplicity that two job applicants, Abbott and Costello, have equal ability. If Abbott offers to work for, say, $5.00 per hour while Costello makes an offer of $4.75 per hour, the employer will hire Costello. But if Abbott makes a counter offer of $4.50 per hour, the employer would then hire Abbott. Costello must now decide whether he will offer less than $4.50 per hour. Suppose he decides against this. Abbott would then be hired at $4.50. Clearly, both participants, the employer and Abbott, gain. But what of Costello? Did he not lose? Was not his utility reduced? The answer is no. First, Costello had the option of underbidding Abbott. The fact that he did not do so indicates that for him no job was a better option than a job at less than $4.50 per hour. Thus, Costello chose the better of the two options that actually faced him. That option was to make no exchange. That is, if Costello were coerced, either by a gun-wielding employer or the government, into working for less than $4.50 per hour, his utility would be *lower* than it would be in the absence of coercion. Thus, Costello made the choice which maximized his utility given the options facing him at the time of that choice.

But Costello desired a job at $4.75 per hour. His hopes were dashed when Abbott offered to work at $4.50 per hour. Was not his utility reduced by having his hopes for the job at $4.75 dashed? Costello's failure to get the job does not mean that he is any worse off than he was *before* he made his offer. He did not have the job before he made the offer; he does not have the job after his offer was rejected. Thus, his *realized* or *real-world* utility plane is unchanged. What has happened is that his hoped-for increase in utility did not materialize; that is, his *realized utility plane* is lower than his hoped-for or *fancied utility plane*, i.e., the utility resulting from an alternative that either could not occur or could occur only through the use of violence. Of course, there must always be a discrepancy between one's actual and desired abilities, between one's realized and fancied utility planes. If this were not the case, if everyone's desires were fully satisfied, all action would cease, for any action would, by definition, entail a reduction in utility (Mises, pp. 13–14).

Put differently, the free market operates to increase every individual's *realized* utility plane. To complain of a discrepancy between realized and fancied utility planes is simply to complain that one's desires have not been fully satisfied. But this complaint reduces itself to the mundane observation that more is better

than less, that abundance is better than scarcity. But scarcity, like uncertainty, is an ineradicable element of nature that is independent of any particular economic system. In fact, while scarcity cannot be eliminated, one can point out that the market is the most efficient institution for production yet discovered and is therefore a powerful engine for reducing scarcities. This can be briefly demonstrated.

Since consumers only buy what they intend to use, one can make a profit only by producing what consumers desire. This, of course, means that it is the consumers who ultimately direct production by their buying and abstention from buying. To produce their goods, the entrepreneurs must bid for the needed resources. They therefore stand in the same relation to the sellers of factors of production as the consumers do to the sellers of final goods. Thus, the price for the factors of production tend to reflect the demand for them by the entrepreneurs. Since what the entrepreneur can bid is limited by expected yield from the final sale of a product, factors are channeled into production of those goods most intensely demanded by consumers. If returns are not high enough to cover the cost of a particular operation, there is, in the eyes of the consumers, a more important use for the factors of production elsewhere. The market, therefore, allocates resources to their most productive point relative to the priority system that the consumers have established.

This can be demonstrated by the following. Assume that the market is in equilibrium. Also assume that a new technological breakthrough has enabled the production of a new commodity that is highly valued by consumers. The production of the commodity, however, requires the use of factor *A*. Those entrepreneurs who perceive this new profit opportunity will begin to bid for the factor. This increased competition for the available supply of *A* will cause its price to rise, forcing some of the users to *A* to curtail their purchases. But who will be the ones forced to curtail their purchases? Clearly, it will be those utilizers of *A* who are receiving the least remuneration for their product from the consumers, i.e., those who are employing *A* in its least productive point. In this way, the supply of *A* is channeled from uses that the consumers value less highly into uses they value more highly. But further, the rise in the price of *A* will encourage other entrepreneurs, also anxious to make profits, to expand the production of *A*. In this way, the free market works to employ "every possible factor of production for the best possible satisfaction of the most urgent needs of the consumer" (Mises, p.

744).

The important point is that if market prices are interfered with, they become distorted and no longer reflect the demands of society. Resources are misallocated and production impeded. Since these inefficiencies reduce the size of the economic product relative to what it would have been on the unhampered market, intervention can only serve to increase the discrepancy between realized and fancied utility.

The Nature of Government

Government is the agency that exercises a monopoly on the legal use of coercion in society. Government is not a productive institution. It has no resources that it has not first taken from others. This means that in order for it to *defend* individuals from aggression by others, it must *first* exercise *prior* aggression, *viz*., taxation, in order to obtain operating revenues. Thus, violence is inherent in every act of government.

In order to understand what may be called the logic of the Austrian analysis of government, it is necessary to distinguish between the actual or *real-world situation* (the existing state of affairs) and what may be termed the *counterfactual situation* (the state of affairs that *would have occurred* had its emergence not been coercively prevented). Since on the free market, all individuals must either remain on the same utility plane or move to a higher one, the market (provided major externalities have been internalized) increases "social utility." And because coercion, either present or prior, is inherent in government, *any* government intervention into the market *must* reduce at least one individual's actual or realized utility relative to that person's counterfactual utility, that is, to what it would have been on the unhampered market. The conclusion of the Austrian approach is, as Rothbard points out (1956, pp. 252–53), that "no act of government . . . can increase social utility." Hence, he continues, "a free and voluntary market 'maximizes' social utility," provided, he quickly adds, terms such as *maximize* and *increase* are interpreted in an ordinal rather than a cardinal sense.

Currently, in excess of 50 percent of the budgets of practically all governments in the world are devoted to transfer payments. This makes wealth transfers, at least quantitatively, the most important function of government. The official justification for these activities is that they increase "social utility." Since transferring wealth from some individuals to

others reduces choice sets of the former while expanding them for the latter, this means that some are forced to choose between options that provide them with less utility than those they would have chosen on the market, while others are able to choose from options that would not be open to them on the market. Since the utility of some is reduced while that of others is increased, any claim that social utility has been increased implies the ability to compare, if not measure, the utilities of different individuals. Thus, the *justification* for wealth transfers clearly implies the use of utility in its cardinal sense (Simon), defined here as the ability to measure and/or compare the utilities of different individuals. Those who maintain that wealth transfers can and do increase social utility should be able to support this claim with adequate evidence. The claim will be examined using two different standards: (a) what may be termed absolute *or apodictic certainty* and (b) the more relaxed standard of *reasonable certainty*.

What can be said with *absolute certainty* about the effect of government wealth transfers on utility in a cardinal sense? Since, despite numerous creative attempts, no one has been able to show that direct interpersonal comparisons of utility are possible, *nothing* can be said with absolute certainty about social utility when there are both gainers and losers. It is possible that the beneficiaries benefit more than the losers are harmed, thereby increasing social utility. The reverse is also possible. This means that it is impossible to ascertain whether a given government action increased or decreased net social utility or left it unchanged. As Rothbard has put it (1956, p. 252), "As economists we can say nothing about social utility in this case since some individuals have demonstratably gained, and some have demonstratably lost in utility, from the government action." But there is *one* possibility from which it is possible to draw conclusions that are *absolutely certain* even when coercion is present. If a coercive act (a) makes no one better off, but (b) leaves at least one person worse off, it follows that social utility is reduced.

The results of the foregoing are interesting. One may say with certainty that the market *always* increases social utility. On the other hand, one can *never* state with certainty that any act of government ever increases social utility, and the only conclusion one could ever make with absolute certainty is that a given act of government *reduced* "social utility." And this, as we shall see, is not as unlikely as might be thought.

This is as far as one can go while remaining in the realm of

absolute certainty. However, by relaxing the standards from absolute to *reasonable* certainty, one can say much more.[1] There are two ways to examine this issue: (1) indirect, interpersonal utility comparisons within a given time-slice and (2) intrapersonal utility comparisons over time. The question is, even using the relaxed standard of reasonable certainty, do these approaches provide any convincing evidence that coercive wealth transfers may increase social utility?

Indirect, Interpersonal Utility Comparisons

In ordinary speech we make interpersonal comparisons of mental states. We often hear or make statements to the effect that *A* is happier, sadder, more in love, or in greater pain than *B*. Granted that such loose talk can hardly qualify as scientific assessments, nevertheless, it would be rash to dismiss it as meaningless.

There is, it is obvious, wide variation in *what* makes different individuals happy or sad plus some variation in *how* individuals express these mental states. But that there is a great deal of sameness or commonality, especially in the outward expressions of our mental states, cannot be denied. For example, laughter denotes happiness; a grimace, pain. One can state with conviction, even of strangers, that they had happy expressions, showed friendly faces, were pictures of health, did not look well, or were in pain.

In a similar vein, people's tastes are in large part a product of their past personal histories, the quality and quantity of their education, and their culture. It is therefore reasonable to suppose that there is a great deal of variety, especially cross-culturally, in what affects our utilities. Observation appears to confirm this. But, again, this should not be interpreted as meaning that there are not equally significant similarities. Observation bears this out as well. Whenever and wherever people in socialist countries have been permitted to express their preferences (as in post-Mao China and, to a lesser extent, in the countries of Eastern Europe and the Soviet Union during the past two decades or so), they have opted for higher standards of living. A major reason socialist politicians have been so successful in the third world is that they have been able to convince large numbers of people that "redistribution" from the rich to the poor will bring them abundance. It seems clear that such politicians would receive very little support if they promised oppression and poverty. Indeed, the uniformity of the desire for material wealth, even

cross-culturally, is remarkable, with Japan being only the most striking example. It is not too much to say that the life-style of the "materialistic West" is the envy of the world. Indeed, the lure of the "American Way of Life" sparked the largest migration in the history of the world (Sowell, 1981, p. 3).

This is not to say that all individual preferences are identical —which is obviously not the case. It is only to say that there is probably enough similarity to enable us to make rough comparisons with reasonable certainty.

This conclusion is strengthened by the "law of marginal utility" which informs us that *all* individuals *always* act to satisfy their most urgent (satisfiable) desire first, their second most urgent desire second, their third most urgent third, etc. This, of course, deals solely with intrapersonal rankings of preferences and therefore does not, in itself, permit interpersonal comparisons, much less measurement, of utility. But while this law says nothing about either the content or degree of particular individuals' utilities, it does show that all individuals act according to the same *process* or *principle*, *viz*., the maximization of their utility, broadly conceived.

Put differently, the fact that all of us are members of the same species, homo sapiens, means not only that we must, by definition, possess certain essential traits in common, it also means that *introspection* is an available tool in understanding the members or units of that class. "Whenever we discuss intelligible behavior," Hayek has observed:

> We discuss actions which we can interpret in terms of our own mind. . . . If we can understand only what is similar to our own mind, it necessarily follows that we must be able to find all that we can understand in our own mind. . . .
>
> If what we do when we speak about understanding a person's action is to fit what we actually observe into patterns we find ready in our own mind, it follows, of course, that we can understand less and less as we turn to beings more and more different from ourselves. But it also follows that it is not only impossible to recognize, but meaningless to speak of, a mind different from our own. What we mean when we speak of another mind is that we can connect what we observe because the things we observe fit into the way of

our thinking. (pp. 66–68)[2]

If Hayek is correct, then such universal principles of human action as the law of marginal utility combined with the observed similarities in such things as individual preferences and the outward manifestation of mental states permit us, after making due allowance for the observed variation in individual preferences, not to measure utilities but, rather, to make reasonably certain rough comparisons of utility.

If one insists on conceiving of utility in cardinal rather than ordinal terms, it follows that one must view it, just like any other phenomenon amenable to measurement, in terms of a continuum rather than a dichotomy. But since one cannot make *exact* measurements but, at best, only rough comparisons, the result would resemble a black/white color spectrum. One can distinguish black from white, but as one moves down the spectrum, one cannot tell where black ends and white begins. There is a massive "gray area" in between which is neither black nor white. Similarly, one can distinguish a child from an adult. One can even chart the evolution of the child into an adult, marking not just the years, but the months, days, hours, and even seconds. Yet, despite the precision of the measuring instrument, one is still unable to point to an exact time that the child becomes an adult. The same is true of the "utility continuum." Given (a) the differences in individual preferences and (b) the indeterminacy of interpersonal utility comparisons, assessments of differences in interpersonal utility planes are possible with even reasonable certainty *only at polar extremes*. To expect any more than this would be like trying to thread a needle with a jackhammer.

What, then, can be said with reasonable certainty of interpersonal utility comparisons? Compare, for example, the position of multimillionaire Robert Baron, III, with that of an indigent, Herb, living at or near starvation. An extra dollar would enable Robert to satisfy a preference that is ranked, say, one millionth on his utility scale while that same dollar would enable Herb to satisfy a preference that is ranked fifth on his. It is reasonable to suppose that the satisfaction of Robert's one millionth preference would not provide as much utility to Robert as the satisfaction of Herb's fifth preference would provide to him. It is, of course, conceivable that the reverse is the case. But for a dollar to provide Robert with more satisfaction than the indigent would so deviate from what observation, experience,

and introspection tell us is typical for human beings as to be characterized as abnormal. And, since an abnormality is, by definition, a departure from the norm, the burden of proof is on those who assert an abnormality to demonstrate its existence rather than on others to disprove the assertion. In the absence of some fairly convincing demonstration of why and how either Robert's or Herb's sensibilities differ so markedly from those of ordinary human beings, the claim can be treated with a large degree of skepticism, if not contempt.

Does this lead to the conclusion that a massive redistribution of wealth would increase social welfare? I think not.

Wealth transfers can be divided into three types: (1) upward wealth transfers, where wealth is transferred from poorer to wealthier individuals or groups, (2) intragroup wealth transfers, where wealth is transferred from one poor individual or group to another poor individual or group, or from one middle-class individual or group to another, etc., and (3) downward wealth transfers, where wealth is transferred from wealthier individuals or groups to poorer ones.

Upward transfers of wealth would reduce the choice set among those whose choice set is already relatively small and expand the choice set among those whose choice set is already relatively large. The result is clear. It would reduce preference satisfaction among those who were already in the position of satisfying the fewest of their preferences. And it would increase satisfaction among those already in the position of satisfying the largest number of their preferences. Since such transfers move us in the position of polar extremes, one can be reasonably certain that upward transfers of wealth reduce social utility and, therefore, could not be justified on the basis of welfare criteria.

Since polar extremes are not present in intragroup transfers, it is reasonable to suppose that the benefits of the recipients are roughly offset by the costs to the payers. It is not possible, therefore, with any degree of certainty to show that transfers either did or did not increase social utility. Given this uncertainty, such transfers in and of themselves could not be justified on the basis of welfare considerations.

Downward transfers present the most interesting case. We have already seen that it is reasonable to assume that an additional dollar for Herb would increase Herb's utility more than the loss of a dollar by Robert would reduce his utility. Hence, downward transfers would appear to increase social utility. But appearances can be deceiving. For transfers,

especially if they are either downward or intragroup, initiate a process whose outcome makes even the initial beneficiaries of the transfers worse off than they would have been even without the transfer. In order to understand this process, we need to turn to the second approach, the intrapersonal comparison of utility over time.

Intrapersonal Utility Comparisons over Time

The second approach differs from the first in that it does not attempt to compare the utilities of different individuals, but to compare the utilities of the same individual at different times.

Wealth can be obtained through two fundamentally different means: (1) voluntarily (i.e., through production, by exchange, or as a gift) or (2) coercively (i.e., by taking it from others).

Assume that Roberts wealth was obtained coercively. The transfer of all or a large part of Robert's wealth would reduce his utility. But there are additional results. Since he could no longer benefit from his coercive activities, the transfer would act as a deterrent or disincentive to coercion. And if Robert were permitted to retain noncoercively obtained wealth, the transfer would operate as an incentive for him to divert his energies from coercion to production. The result would be not only an increase in Robert's utility from what it was after the transfer, but his production would increase "social output" and, therefore, social utility. Moreover, if the transfer went to those who had originally earned the wealth, not only would it increase their utilities immediately, but keeping the rewards or gains from their production would, it is likely to assume, stimulate producers to expand their outputs, thereby increasing not only the utilities of the producers but social utility as well.

If we assume that Robert obtained his fortune voluntarily, the incentives created by wealth transfers are exactly reversed. The immediate effect of the government transfer from Robert to Herb would be, as shown in figures 1 and 2, to reduce Robert's utility while increasing Herb's. But this is only the beginning of the process. How would Robert react to the continued appropriation of his earned income (the area *ABCD* in figure 1)? Put differently, how would he react to policies that prevented him from raising his utility beyond a certain level, say *A* in figure 1?

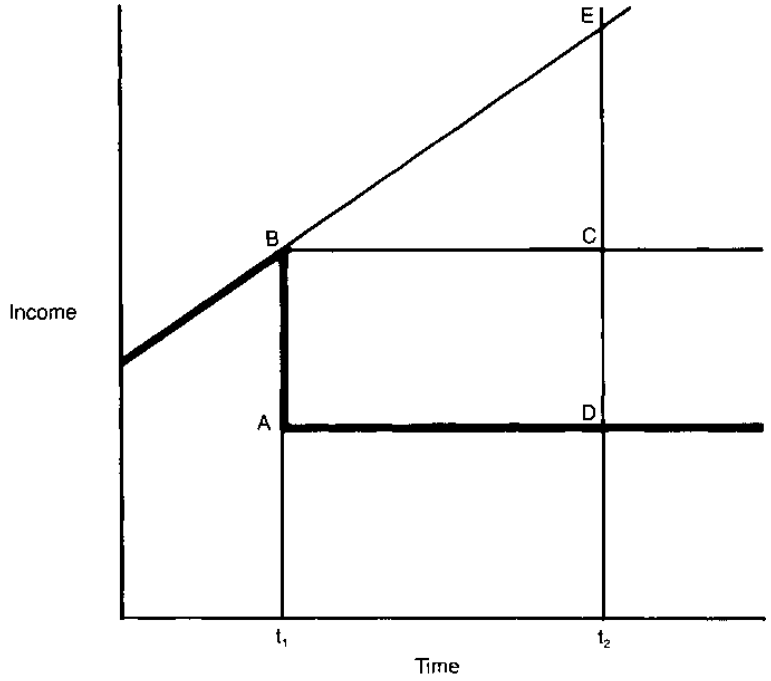

Figure 1. Robert

If Robert has obtained the highest utility plane possible under the circumstances, he would, of course, cease trying to increase his utility and rest content with simply maintaining it at the current level. This means that the transfer activities would, at time t_2, result in a discrepancy between Robert's realized income, *D*, and his counterfactual income, *E*. Moreover, it means that society as a whole would be impoverished by the loss of Robert's production equal to the area *BCE*.

The wealth transfer is likely to have an equally significant impact on Herb's behavior. Since the transfer brings about an immediate increase in Herb's income from *A* to *B* (in figure 2), and since Herb knows that the government will not permit his income to drop below that level, it is obvious that it would reduce, perhaps even eliminate, his incentive to produce. So long as Herb's earned income falls below *B*, his work is simply wasted effort on his part. That is, since work is a disutility, any work yielding an income at or below line *BC* would reduce Herb's utility since he could obtain the same or greater wealth without work. Thus, the transfer means that Herb would be better off by reducing the hours he works or by not working at all. If, for simplicity, we assume that Herb reacts to the transfer, like

Robert, by maintaining his earned income at his current level (*A* in figure 2), the transfer, represented by the area *ABCD*, increases Herb's income at time t_1. At time t_2, his total income (earned income plus transferred income) is *C*. But this is the *same* income that he *would be enjoying* had he not received any transfers in the first place. Hence, other things being equal, Herb is no better off at t_2 with transfers than he would have been in their absence; and "society" is poorer to the extent of Herb's lost production, i.e., the area *ACD* in figure 2.

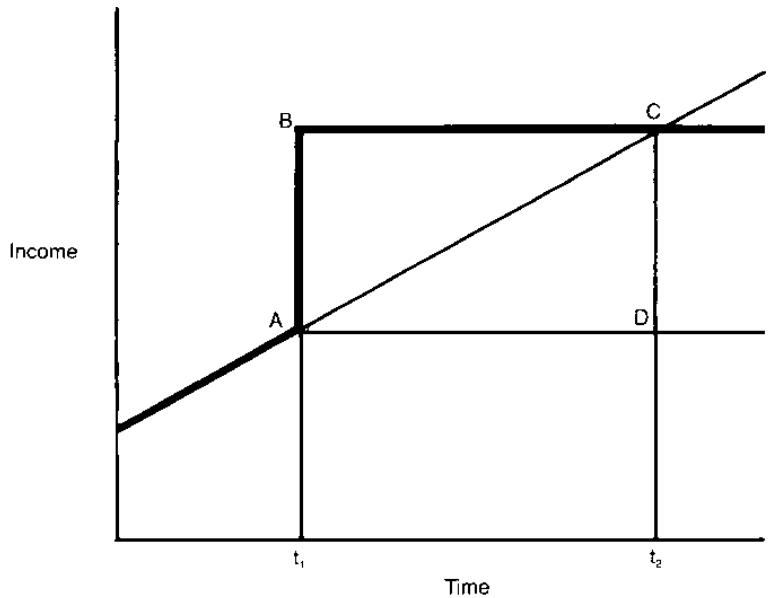

Figure 2. Herb

The result is interesting. The government transfer hurt Robert. On the other hand, it did not benefit Herb, at least in the *long run*. Since no one was benefited and at least one person was hurt, the transfer "benefits" actually *reduced* social utility in this case.

One possible counterargument is that both Robert and Herb simply exchanged more leisure and a smaller income for a larger income with more work, and, since leisure is a valuable good which contributed to one's utility, neither has had their utility levels reduced. We are constantly making incremental adjustments between leisure and wealth. But it is important to recognize that if one's preferred option is additional wealth and if this option is coercively barred, then even if additional leisure is the best of the remaining options, it still represents a decline in

utility. If there is a reduction in the overall economic growth rate in a particular country and if that reduction can be traced to government policies, it is clear that most if not all of that government's citizens would have preferred the additional wealth. This, of course, would be especially true if the slowdown resulted from declining productivity and therefore produced little if any additional leisure. Recent empirical studies (see, e.g., Landau; Olson; and Krauss, especially pp. 157–60), provide some indication that this, in fact, is the case.

Similarly, if economic output increases following a reduction in government regulation, one can conclude that all or most members of the society preferred additional income to leisure and that enforced leisure, provided there was some, meant that the members' realized utility was below their counterfactual utility. The dramatic increase in agricultural output in those third world countries that have recently reduced government interference in the agricultural sector compared to the continued low or even declining outputs of those countries with prohibitive taxes on and extensive government involvement with agriculture indicates that low economic output does not represent a preference for leisure over wealth (*The Economist*; Osterfeld, 1985a; *Time*; and Francis).

One can also argue that there is no reason that long-run interests should take precedence over short-run interests. But it is a serious mistake to phrase the issue in this way. Individuals maximize their utility by making trade-offs "at the margins." They choose to consume X units of good A, $X + 1$ units of good B, and $X - 2$ units of good C, etc. In similar fashion, individuals maximize their utility by choosing to satisfy some desires in the present, others at $t + 1$, and still others at $t + n$. One may choose to eat a hamburger now, buy an automobile next year, and go to college in ten years. We live in both the present and the future. We are constantly making trade-offs between satisfying certain desires now and satisfying other desires at various times in the future. The important point is that if one is to choose the optimal mix of present and future satisfactions, the "rules of the game" should not be rigged so as to encourage or even induce individuals to behave in the short run in ways that produce long-run results that even the actors themselves would disapprove of. For example, a 100 percent tax on all production would, it is fair to assume, eliminate all productive behavior. This would be the result even though the consequences would be (a) easy to foresee and (b) those that everyone would disapprove

of. In short, the tax would induce or *trap* people into behaving in the short run in ways that would produce in the long run results which they not only could predict but would regard, *even at the time of their choices*, as undesirable or irrational. Whether or not a choice is rational depends on both the goals and values of the individual making the choice and the context within which the choice is made. It is possible that *within a given context*, the most rational choice open to individuals has consequences that even they would regard as "irrational," i.e., counter to their own preference rankings. There is increasing evidence that government tax policies, transfer payments, and the like place individuals within decision-making contexts of this type.

There is, for example, substantial evidence that the Great Society and War on Poverty programs of the 1960s not only failed to eliminate poverty in the United States but actually led to an increase not only in the number but in the percentage of poor. In trying to explain this phenomenon, Charles Murray (p. 9) pointed out that "A government's social policy helps set the rules of the game—the stakes, the risks, the payoffs, the tradeoffs, and the strategies for making a living, raising a family, having fun, defining what 'winning' and 'success' mean. . . . The most compelling explanation for the marked shift in the fortunes of the poor," from the mid-1960s on, says Murray,

> is that they continued to respond, as they always had, to the world as they found it, but that we . . . had changed the rules of their world. . . . The first effect of the new rules was to make it profitable for the poor to behave in the short term in ways which were destructive in the long term. Their second effect was to mask these long term losses—to subsidize irretrievable mistakes. We tried to provide more for the poor and produced more poor instead. We tried to remove barriers to escape from poverty, and inadvertently built a trap.

Numerous other studies, both of the United States (see, for example, Gwartney and McCaleb; Gallaway and Vedder; Lee; Osterfeld, 1980) and of foreign nations (Lee; Kraus, Bauer, Bauer and Yamey; Sowell, 1983; Osterfeld, 1982; Osterfeld, 1985a; Osterfeld, 1985b, Bandow), reached much the same conclusions: government transfer programs, tax policies, and the like make it rational for the poor to choose options that will retard or even reverse their economic development, i.e., it induces individuals

to make choices counter to their *own* preferences.

There is one remaining but vitally important question: how long would it take for natural economic growth to put someone like Herb on a higher utility plane than he was on after the receipt of the income transfer? This cannot be stated with certainty. It depends on many factors such as the size of the benefits received by Herb and the overall disincentive impact of income transfers.

Nevertheless, some rough assessments can be made. Norman Macrae (p. 20) has shown that between the year 1 A.D. and 1776 (the date of publication of Adam Smith's *Wealth of Nations*), average per capita income remained fairly constant at about $250 (in 1975 dollars). The percentage of mankind living below the poverty level was 99 percent. Today, that percentage is considerably less than 65 percent. Since world population has increased sixfold during this time, this represents an *eightyfold* increase in world output in the two-hundred—year time span between 1776 and 1975.

If one uses more current data, Landau (p. 460) has shown that the annual growth rate of per capita GDP for the sixteen most developed market economies averaged 6.3 percent for the 1955–73 period. The average share of government was 27 percent in 1955, but rose to 43 percent by 1979. Interestingly, the average economic growth rate for the sixteen countries dropped to a mere 2 percent during the 1973–79 period. Landau's rather cautious conclusion (p. 473) is that "the growth of government consumption and investment expenditure has helped 'cause' the slowdown in economic growth."

If, then, one assumes that 6.3 percent is the *normal* growth rate for a free market economy, per capita output would double every eleven years. This means that if transfers increased Herb's income by, say, a relatively modest 33 percent, his realized income, even with transfers, would fall *below* his counterfactual income in less than four years. If growth rates were faster, which seems likely since the 6.3 percent growth rate occurred while government was consuming 27 percent of the GDP, the time frame would be even shorter.

Thus, there is good reason to believe that government transfers actually reduce "beneficiary" income over even relatively short periods of time. And since the evidence also shows that the vast majority of people prefer more wealth to less wealth, it is reasonable to conclude that government transfers from rich to poor reduce the intrapersonal utility of all involved

including the recipients.

Conclusion

The market process, provided it operates within a legal framework that internalizes externalities, operates so as to perpetually increase the utilities of all participants. In contrast, government intervention reduces social utility. This can be demonstrated with certainty when utility is interpreted in ordinal terms. Although nothing can be said with certainty when utility is interpreted in cardinal terms, we have found no convincing evidence that any government transfers ever increase social utility, but considerable evidence that they reduce it. In short, the best available evidence indicates that government transfers inevitably reduce social utility regardless of whether that concept is interpreted in ordinal or cardinal terms.

It may be objected that only government transfer policies have been considered and that other government policies may have very different effects. But the fact is that there are no "other" policies. All government policies transfer wealth either explicitly or implicitly. Minimum wage rates, for example, "represent an implicit transfer *within the least advantaged classes*, from the most unskilled workers (who can no longer get any sort of job) to the best unskilled (who are integrated relatively more easily into the labor market). In the last analysis it is a regressive social measure" (Lepage, p. 122), i.e., it is an upward transfer of wealth.

Recognition of this significant but often overlooked fact has profound ramifications. For, if *all* government policies transfer wealth and if all the available evidence shows that transfers reduce social utility regardless of whether that term is interpreted in ordinal or cardinal terms, then the inescapable conclusion is that, based on social welfare criteria, government is an unjustifiable institution. Yet, even such insightful and normally courageous Austrians as Mises and Hayek have stopped short of pushing their analyses to their logical conclusions. Mises, for example, noted that since there will always be antisocial individuals, the preservation of social order necessitates the use of violence to crush such peacebreakers. Thus, the state is *sine qua non* of any tolerable social order (Mises, pp. 148–49). Unfortunately, since Mises, much like John Locke three centuries before him, never entertained the notion that police and court services could be supplied competitively, he ignored the

anarchist implications of his own analysis and inconsistently advocated a (minimal) state.

More recently, several authors have investigated the possibility that police and court services might be supplied competitively and have concluded not only that this would be feasible but that it would be *desirable* as well. It is no accident that the most notable of these is Mises' protege Murray Rothbard (see Rothbard, 1970b; Rothbard, 1973. Also see Perkins and Perkins; Tannehill and Tannehill; Tuccille; Friedman; Sanders; and Osterfeld, 1986).

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[1] Whether one wishes to admit as evidence conclusions based on such relaxed or weak assumptions is another question altogether.

[2] Adam Smith (1969, pp. 3–5) reaches much the same conclusion:

> As we have no immediate experience of what other men feel, we can form no idea of the manner in which they are affected, but by conceiving what we ourselves should feel in the like situation. Though our brother is upon the rack as long as we ourselves are at our ease, our senses will never inform us of what are his sensations. . . . By our imagination we place ourselves in his situation, we conceive ourselves enduring all the same torments, we enter as it were into his body, and become in some measure the same person with him, and thence form some idea of his sensations, and even feel something which, though weaker in degree, is not altogether unlike them. . . . Whatever is the passion which arises from any object in the person principally concerned, an analogous emotion springs up, at the thought of his situation, in the breast of every attentive spectator.

Austrian Methodology: The Preferred Tax Type

Jeffrey Herbener

This article illustrates the usefulness of the methodology of the Austrian school of economics. No scientific inquiry can occur without a method, be it carefully considered or willy-nilly. Yet, mainstream economists pay little attention to the methods they use. Apparently they are satisfied to mimic the method of physics.

For economists as a whole, the Austrians stand virtually alone as students of methodology. The usefulness of the economic theory developed from their method challenges mainstream economists to reconsider their own methodology.

This article poses such a challenge by presenting an Austrian school critique to the indifference curve analysis proof that an individual prefers an income tax to an excise tax of equal amount. The first section gives a brief overview of the Austrian methodology, a theory of property rights plus the resulting market system, and, finally, the effect of invasion into the market. The second section reviews indifference curve analysis and its application to tax types. The third contains the Austrian critique of indifference curve analysis and its application to tax type. The last section provides concluding remarks.

Austrian Methodology

Austrian economists study all human action, including economics, using the axiomatic-deductive method of logic.[1] This methodology employs the rules of deductive logic to derive conclusions from basic premises. These conclusions will be true if the premises are true and the logical steps used in their derivation are valid.

The science of economics begins with the premise that each individual human acts. The existence of human action is self-evident. Furthermore, the premise rises to the status of a axiom since any attempt to refute the premise is human action. The entire body of economic theory derives from the fundamental

axiom (and, as needed, ancillary premises).[2] For example:

> Let us consider some of the immediate implications of the action axiom. Action implies that the individual's behavior is purposive, in short, that it is directed toward goals. Furthermore, the fact of his action implies that he has consciously chosen certain means to reach his goals. Since he wishes to attain these goals, they must be valuable to him; accordingly he must have values that govern his choices. That he employs means implies that he believes he has the technological knowledge that certain means will achieve his desired ends. Let us note that praxeology does not assume that a person's choice of values or goals is wise or proper or that he has chosen the technologically correct method of reaching them. All that praxeology asserts is that the individual actor adopts goals and believes, whether erroneously or correctly, that he can arrive at them by the employment of certain means.
>
> All action in the real world, furthermore, must take place through time; all action takes place in some present and is directed toward the future (immediate or remote) attainment of an end. If all of a person's desires could be instantaneously realized, there would be no reason for him to act at all. Furthermore, that a man acts implies that he believes action will make a difference; in other words, that he will prefer the state of affairs resulting from action to that from no action. Action therefore implies that man does not have omniscient knowledge of the future; for if he had such knowledge, no action of his would make any difference. Hence, action implies that we live in a world of an uncertain, or not fully certain, future. Accordingly, we may amend our analysis of action to say that a man chooses to employ means according to a technological plan in the present because he expects to arrive at his goals at some future time.
>
> The fact that people act necessarily implies that the means employed are scarce in relation to the

> desired ends; for, if all means were not scarce but superabundant, the ends would already have been attained, and there would be no need for action. Stated another way, resources that are superabundant no longer function as means, because they are no longer objects of action. Thus, air is indispensable to life and hence to the attainment of goals; however, air being superabundant is not an object of action and therefore cannot be considered a *means*, but rather what Mises called a "general condition of human welfare." Where air is not superabundant, it may become an object of action, for example, where cool air is desired and warm air is transformed through air conditioning. Even with the absurdly unlikely advent of Eden (or what a few years ago was considered in some quarters to be an imminent "postscarcity" world), in which all desires could be fulfilled instantaneously, there would still be at least one scarce means: the individual's time, each unit of which if allocated to one purpose is necessarily not allocated to some other goals. [3]

This scarcity implies that an individual cannot fulfill all goals but must allocate means to the most highly valued ends, leaving less valued ends unfulfilled.

Means used to accomplish ends are called goods. Conceptually, action toward means can be either production, consumption, or exchange. Production is an act that furthers a good toward its final stage where it is consumed. Consuming a good renders service (value) to the individual consumer. Voluntary exchange of goods is an act of production that moves goods from less valuable to more valuable uses. All such voluntary trades occur in (or constitute) the market.

Property Rights. Since individuals exchange possession of goods and service (alienable property) in the market, any explanation of markets must contain a theory of ownership rights to property. [4] Briefly, the system of property rights that generates free market exchange as a by-product contains five parts: (1) Each individual owns himself, some parts of which are exchangeable (e.g., labor) and some parts of which are inalienable (e.g., free will). (2) When an individual mixes his labor with other resources, he comes to own the property created. (3) In a similar

manner, the first individual to transform virgin land becomes its just owner. (4) The only other way to justly acquire ownership rights to property is voluntary exchange. (5) An individual can defend his property against aggressive violent invasion—coercion—by using a proportional amount of defensive violence to repel the invader. Finally, these rights are absolute and equal for all individuals.

The Market. Free market exchange will result from this system of property rights, with the following effects.[5] First, each voluntary exchange provides benefit for all traders. Individuals demonstrate their gain by the very act of voluntary trade. Taken together, all such acts create the greatest possible value of goods and, thus, maximize the utility of the individuals in the market. Second, harmony exists between individuals since each person's welfare depends on gaining the voluntary cooperation of others. If a person disrupted this harmony, he would injure himself. Third, man extends his power over nature to produce goods because he claims them as his own. This occurs through specialization and division of labor which the existence of trade makes possible. Fourth, individuals produce in a pattern desired, not by themselves, but by others. That is the only way to earn wealth on the market. Fifth, voluntary trading results in a set of market prices. These prices are established in accord with the values individuals place on various goods; therefore, each individual can use these prices to calculate how to effectively serve others. These activities create wealth which is reflected in the increased value of goods and the existence of profit. Finally, the market contains incentives for production and improved living standards. This is a direct consequence of ownership of produced property. The market renders mutual benefit, harmony, peace, power of man over nature, efficiency, calculation, and productivity. But what of involuntary exchange—the opposite of the market? The next section traces the effects of placing a protection racket that engaged in such coercion within a market community.

Invasion of the Market. The protection racket will engage in several actions. First, the racket extracts payment from individuals with the use or threat of physical violence. This involuntary exchange violates the individual's property rights by establishing a hegemonic relationship of command and obedience. The racket and its favorites benefit while the victims suffer. Second, the racket provides differing amounts of

protection to different individuals regardless of an individual's desire for it. Without voluntary payments, the racket cannot know the strength (if any) of the individual's demand for protection. Thus, even if it desires to, the racket cannot efficiently provide the pattern of protection services that individuals desire. Third, the racket's activity does not increase the value of goods in the community and probably decreases their value. When providing protection, the racket diverts resources from producing goods that individuals demonstrably desire on the market. Instead, these resources produce what the protection racket and its favorites desire. The preracket pattern of market production, exchange, and consumption is completely transformed into a less efficient (less valuable) pattern. These effects will hold true when any group establishes the hegemonic relationship.

Government. The effects of government activity are analogous to those of the protection racket. Taxes are involuntary payments extracted by the threat or use of force. If not, individuals would gladly make these payments voluntarily and could voluntarily withdraw them. Taxes cannot exist in the market, but are always invasions into the market. As with any other form of violence, taxes disrupt the effectiveness of voluntary activity (destroy wealth).

In the same manner as the protection racket, all government activity (i.e., taxing and spending) transfers wealth from one group to another, destroying some in the process. This misallocation occurs as government coerces individuals to give up part of their income (which was created by servicing the desires of others) and then uses these funds to bid resources away from them. Individuals are burdened and resources are reallocated from serving individual desires to satisfying the ends of government officials. The extent of the burden of this misallocation is directly proportional to the level of taxation and government expenditures compared to the level of private income. In other words, the type of tax is much less significant than the level of taxation (and expenditure).

Because of the coercive nature of government activity, two additional results come forth. First, by voluntarily purchasing an item on the market, an individual demonstrates that he values the item more than the money price. But in paying taxes, he makes no such demonstration. The government does not know, as a business does, the value individuals place on its activity.

Since government cannot obtain the information and incentive by demonstrated preferences of individuals, they cannot efficiently serve individuals. Second, the government creates a disjunction between benefit from and payment for their activities. The taxpayer pays and the benefits go to government officials and those who obtain government expenditures. This creates both a class of forced riders and a class of free riders. In Rothbard's words:

> One of the conclusions of this analysis is that the purely free market maximizes social utility, because every participant in the market benefits from his voluntary participation. On the free market, every man gains; one man's gain, in fact, is precisely the consequence of his bringing about the gain of others. When an exchange is coerced, on the other hand—when criminals or governments intervene—one group gains at the expense of others. On the free market, everyone earns according to his productive value in satisfying consumer desires. Under statist distribution, everyone earns in proportion to the amount he can plunder from the producers. The market is an interpersonal relation of peace and harmony; statism is a relation of war and caste conflict. Not only do earnings on the free market correspond to productivity, but freedom also permits a continually enlarged market, with a wider division of labor, investment to satisfy future wants, and increased living standards. Moreover, the market permits the ingenious device of capitalist calculation, a calculation necessary to the efficient and productive allocation of the factors of production. Socialism cannot calculate and hence must either shift to a market economy or revert to a barbaric standard of living after its plunder of the preexisting capital structure has been exhausted. Any and every intermixture of government ownership or interference in the market distorts the allocation of resources and introduces islands of calculational chaos into the economy. Government taxation and grants of monopolistic privilege (which take many subtle forms) all hamper market adjustments and lower general living standards.

> Government inflation not only must injure half the population for the benefit of the other half, but may also lead to a business-cycle depression or collapse of the currency.
>
> We cannot outline here the entire analysis of this volume. Suffice it to say that in addition to the praxeological truth that (1) under a regime of freedom, everyone gains, whereas (2) under statism, some gain (*X*) at the expense of others (*Y*), we can say something else. For, in all these cases, *X* is not a pure gainer. The indirect long-run consequences of his statist privilege will redound to what he would generally consider his disadvantage—the lowering of living standards, capital consumption, etc. *X*'s exploitation gain, in short, is clear and obvious to everyone. His future loss, however, can be comprehended only by praxeological reasoning.[6]

Such is the nature of government and the effects of its activity derived from the Austrian method. The next section discusses the indifference curve analysis and its application to the problem of optimal tax type.

Traditional Analysis

Methodology

The indifference curve analysis attempts to construct a model of individual behavior using the axiomatic-deductive method.[7] It begins with five premises. First, an individual can compare different market baskets (combinations) of goods. In any comparison, the individual either prefers basket *A* to basket *B*, prefers *B* to *A*, or finds *A* and *B* of equal value. Second, an individual has transitive preferences: if *A* is preferred (indifferent) to *B* and *B* is preferred (indifferent) to *C*, then *A* is preferred (indifferent) to *C*. Third, the individual prefers more of any good to less of the good. Fourth, only two goods (*X* and *Y*) exist. Fifth, an individual will trade successively smaller amounts of *X* for each additional unit of *Y* he can acquire while maintaining a fixed amount of utility.

From these premises, the following conclusions (stated in geometric terms) are derived. The first premise implies the existence of indifference curves. Each curve shows all

combinations of the two goods that render equal satisfaction. From the second premise it can be inferred that indifference curves do not intersect. The third premise implies that (1) indifference curves have negative slopes and (2) the farther a curve lies from the origin, the greater the level of utility. Finally, indifference curves are convex to the origin as implied by the fifth premise.

Proof

This section reviews how various authors have used the indifference curve technique to "prove" that an excise tax makes a consumer worse off than an income tax of equal amount.[8] An individual has the choice between commodity X and other goods (M). These options plus the individual's income render the budget constraint $M_O X_O$ in figure 3. Given a set of preferences that generate a well-behaved indifference map, the individual selects the combination at point A obtaining a utility level of U_O. From this initial situation, the traditional analysis seeks to show that an excise tax reduces utility more than an income tax when the two raise the same amount of tax revenue.

The proof proceeds by imposing an excise tax, then allowing the individual to adjust to the tax, then offering an income tax, and finally letting the individual select between the two posttax situations. Imposition of an excise tax on X increases the price of X, causing the budget line to rotate inward to $M_O X_E$. As a result, the individual adjusts to combination B with a utility level of U_E. After the adjustment, the government receives $M_O M_I$ in tax revenue.

An equal income tax raises the same tax revenue ($M_O M_I$) as the excise tax, but does not alter relative prices. Graphically, the income tax shifts the original budget line parallel to $M_I X_I$. Compared to the excise tax budget line, the individual's feasible opportunities increase by the triangle $BX_I X_E$. The individual responds by purchasing more X and less M, moving from point B to point C. This readjustment increases satisfaction from U_E to U_I, while allowing the government to raise the same tax revenue. Furthermore, this conclusion does not depend on the individual's relative preference for X and M. Starting at point B, there must exist a combination on BX_I that renders more utility than combination B. A well-behaved indifference map (implying the tangency of U_E at point B) insures this result.

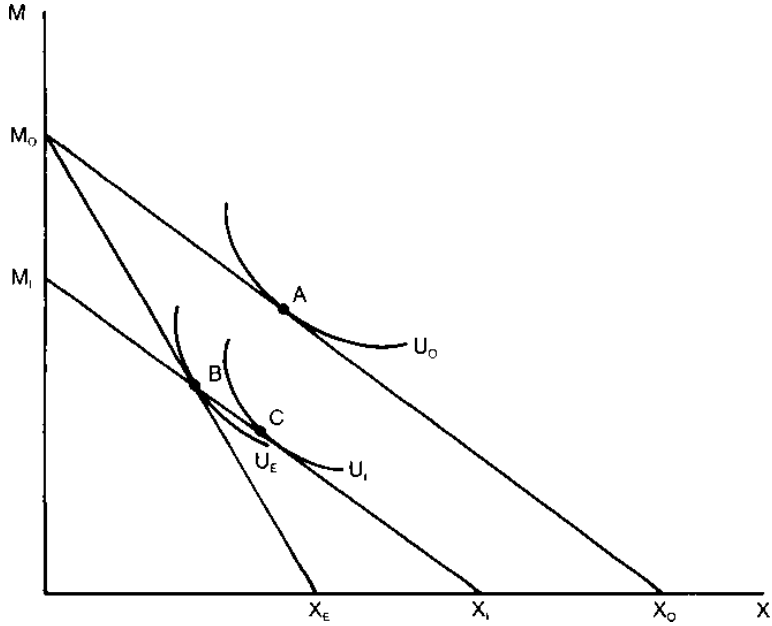

Figure 3

The rationale for preferring the income tax stems from the substitution effect of the excise tax. By construction, the income effects of the two taxes are identical. Thus, the excise tax differs from the income tax by increasing the relative price of *X*. As a result, the individual suffers from both an income effect and a substitution effect. (The latter further restricts the individual's feasible opportunities beyond the harm done by the income tax.) Faced with fewer alternatives, the individual must endure a decline in utility.

Austrian Critique

Methodology

In the axiomatic-deductive method, a true conclusion emerges if the premises are true and the logic is valid. A false conclusion could stem from one or a combination of two types of errors: a false set of premises and/or invalid logic. For the preceding analysis, these errors are analyzed in turn beginning with the premises.[9]

Preferences are subjective to each individual. The existence of human action implies that an individual can rank different alternatives from highest valued to lowest valued. An observer

can discover a small piece of this ranking only when the individual demonstrates his preferences in voluntary action. Such demonstrations only occur in choosing one alternative instead of another. Indifference never leads to choice; thus, it has no role in a value-free model of preference.

For example, examine the typical construction of an indifference curve.[10] The individual begins with some market basket, say basket *A*, in his possession. Then he is offered basket *B*. He has two alternatives: retain *A* (forgo *B*) or acquire *B* (forgo *A*). There exists no "indifference" alternative. He may *say* he is indifferent, but by choosing one alternative over the other, he *demonstrates* preference.

Furthermore, subjective preferences of different alternatives depend upon the individual's situation. Each time that environment changes, so can his entire preference ranking. Even if an indifference map existed, it could continually shift during the course of an analysis as the individual accepted different market baskets.

Turning to the process of logic, the indifference curve method makes an unanalyzed switch from verbal to mathematical logic between premises and conclusions. This can create error depending on the case involved. Given the premises, an indifference curve is drawn by connecting, with a smooth curve, all market baskets that render the same amount of satisfaction. The conclusions are stated as mathematical properties of this smooth curve. Yet, drawing the curve implies a level of quantification far beyond ranking. It implies that the individual's subjective values can be expressed as a functional relationship between two goods. In addition, the function is smooth and continuous and, thus, it has derivatives at each point. Yet, these characteristics cannot be derived from the premises. They have the status of unanalyzed assumptions. Since their truth is unestablished, so is the truth of any conclusion drawn from them by deduction.

This shift to mathematical logic also implies that mathematical operations can be performed on the satisfaction acquired from different goods. Utilities can be added, subtracted, multiplied, divided, differentiated, etc. These are also conditions not contained within the premises and, thus, they are open to the criticisms just listed.

In addition, under analysis, these assumptions are false. No unit of measure exists to quantify preferences; thus, they cannot be measured. Furthermore; calculus cannot be employed since

derivatives imply infinitesimal changes. But human action only occurs in perceptible discrete lumps. What is true for the derivative is true for the slope of a curve at a point.

Application

Using indifference curve analysis, authors have concluded that with a given amount to pay, an individual prefers an excise tax to an income tax. Assuming the validity of the indifference curve method, several criticisms exist regarding this application.

Return to the protection racket analogy to recreate the analysis. The racket decides to make the burden of its plunder as light as possible on the victims. (Why they or the government would want to do this is left to your imagination.) It tells each citizen the following: "You must pay x amount in tribute, but we will allow you to choose one of two payment methods. Either we will take x out of your income or we will raise the price of electricity (or some other good) that you purchase until your expenditure on electricity increases by x." When the citizen selects one or the other method, we have an answer to the question. But suppose a mainstream economist conducted an analysis and found that each citizen would always prefer the first alternative because, compared to the second, he will suffer less. The citizen's response would likely be, "Why should I suffer at all? I really prefer no protection racket." In fact, returning to figure 3, the mainstream economist's method actually shows that the individual prefers no tax (point A) to either type. To conclude that the individual is better off at point C, the mainstream economist must make a massive value judgment in favor of the protection racket's claim to take the citizen's wealth (comparable to validating the same claim by the government). He becomes an ethicist by recommending that the government should use the income tax. In turn, the hapless citizen knows what to think of this "value-free science."

It does not suffice to retort that the government provides services to the individual; so does the protection racket. The point is that the individual demonstrates that these services are not worth their opportunity cost when he chooses not to purchase them on the market. In addition, the indifference curve technique says nothing about the benefits of government activity, only about burden. This is as it should be since coercion (the method of government) divorces payment for a service from reception of the service—creating forced and free riders.[11]

Beside resting on a value judgment, the indifference curve analysis never asks and, thus, never answers the question it claims to answer. Using the protection market analogy, it proceeds as follows. First, the racket would increase the price of electricity. Second, it would allow the individual to adjust to this tax and then measure the resulting tax revenue. Third, the racket would say, "you can continue to pay x amount via the higher price (which requires buying the same amount forever) or pay x amount out of your income and we will lower the price of electricity to its original level." This is a much different situation for the victim. (Why would the racket or government create such a situation?) His selection of the income tax does not prove that he prefers an income tax to an excise tax of equal amount. It proves that he prefers lower prices to higher prices (as a buyer) and that he prefers more alternatives to choose from than fewer.

The indifference curve analysis does not take as given the amount of tax and then compare the two alternative tax types. It allows the individual to choose the amount of tax under the excise form and compares that solution to the income tax. Imposing other sequences shows why this specific sequence is used.

In figure 4, the individual begins with a budget constraint of $M_{\mathrm{O}}X_{\mathrm{O}}$. Optimum purchase occurs at point A with a utility level of U_{O}. If the government imposes an income tax, the original budget constraint shifts inward parallel to $M_{\mathrm{I}}X_{\mathrm{I}}$. The individual selects point B with a reduction of satisfaction from U_O to U_{I}. As a result, the government tax revenue equals $M_{\mathrm{O}}M_{\mathrm{I}}$.

Now the government offers the individual an excise tax designed to raise the same amount of tax revenue. How can they calculate this tax? If they assume the individual will purchase combination B with either tax, the excise tax budget constraint appears as $M_{\mathrm{O}}X_{\mathrm{E}}$. Yet, under these conditions, the individual will select combination C and increase utility from U_{I} to U_{E}. The resulting government revenue equals $M_{\mathrm{O}}M_{\mathrm{E}}$. The government may react to this loss in tax revenue by increasing the excise tax rate. But the effect on tax revenue depends on individual preferences which remain hidden from government. These preferences only reveal themselves in voluntary choice; thus, no basis exists for the government to make the calculation necessary to collect equal tax revenue (as long as it does not force the individual to buy a given amount). This parenthetical effect constitutes the real "extra" burden of the excise tax, as the problem is constructed. In other words, unless the government

prevents any posttax freedom of choice with the excise tax, it cannot conduct the postulated experiment.

The government's problem intensifies if the two tax types are offered simultaneously. Referring to figure 4, such an offer would render a kinked budget constraint such as M_IBX_I. An individual with a strong preference for X would select an income tax. His purchase combination would lie on the segment BX_I, resulting in a smaller tax bill than the excise tax for any point selected along the segment BX_E. An individual with a weak preference for X would select a point along M_OB involving less tax than any point selected along M_IB. Again, the government cannot equate tax revenues from the two types. In this case, it makes no sense to even propose such a constraint.

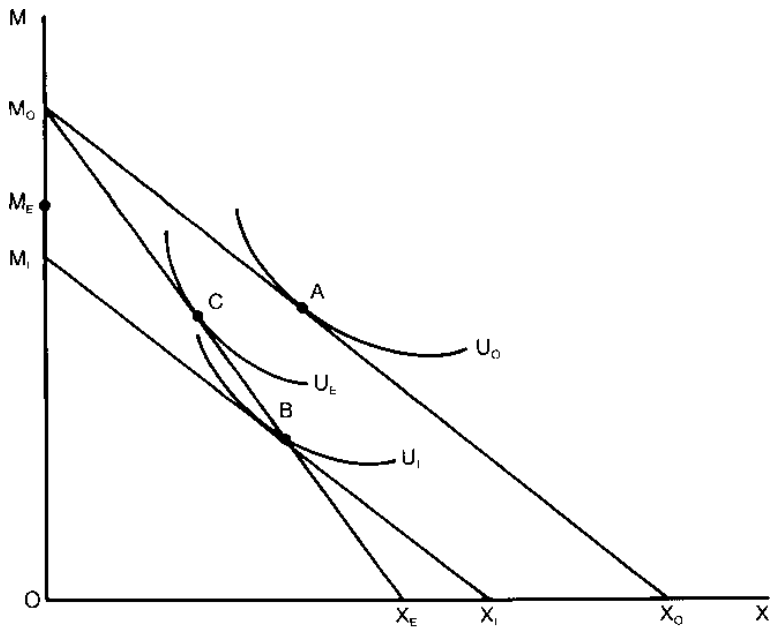

Figure 4

Only in one of three conceptual cases can the government enforce the equal—tax-revenue constraint (while allowing the individual freedom to choose quantities). The validity of the traditional proof as just rendered relies on the excise-tax-then—income-tax sequence. Yet, no justification is given for this sequence. Surely, it is not based on the observation that the government actually makes such offers. More likely, authors use this sequence because only it allows the government to conduct the postulated experiment. Yet, it does not answer the question

posed by the analysis.

As just noted, the individual's preferences are unknown to the government. In addition, they may change during the analysis. For example, the individual may despise the income tax and, thus, prefer the excise tax. Allowing for such an unstable indifference map invalidates the results. Yet, a stable indifference map reduces the individual to a robot reacting to input with an unchangeable programmed set of responses.

In addition to shifting preferences, the budget lines may shift during the analysis. For example, the individual may sell a product that competes with the good the government taxes. The excise tax would shift demand to his product, shifting his excise tax budget line outward. Such an individual may prefer an excise tax. The indifference curve analysis does not incorporate this important effect.

Finally, since the tax represents a burden to the individual, he will try to avoid paying. Thus, he may choose the excise tax, even if its initial burden is greater, in anticipation of easier avoidance in the future.

This burden has two forms: the loss of income and the distortion of resource use. The indifference curve analysis cannot measure the latter and, thus, is (even if valid) a wholly inadequate framework for this problem. As already demonstrated, the Austrian view is broad enough to incorporate both these effects.

Additional Effects

The major difference between an income tax and an excise tax is that the latter penalizes the production of certain goods.

> The excise tax . . . *in addition*, penalizes the particular industry backward to the factors working in the industry. Now, however, the tax exerts pressure on nonspecific factors and entrepreneurs to leave the taxed industry and enter other, non-taxed industries. *During the transition period*, the tax may well be added to cost. As the price, however, cannot be directly increased, the marginal firms in this industry will be driven out of business and will seek better opportunities elsewhere. The exodus of nonspecific factors, and perhaps firms, from the taxed industry *reduces the stock of the good that will*

> *be produced*. This reduction in stock, or supply, will raise the market price of the good, given the consumers' demand schedule.[12]

The major additional harm done by the excise tax relative to the income tax is the further distortion in the use of resources to satisfy consumers. The price increase (which traditional analysis focuses on as a substitution effect) is just a by-product of this distortion. Taking the Austrian view,

> Everyone in the market suffers as a result of an excise tax. Nonspecific factors must shift to fields of lower income; since the discounted marginal value product is lower there, specific factors are hit particularly hard, and consumers suffer as the allocation of factors and price structure are distorted in comparison with what would have satisfied their desires.
>
> In addition to these specific effects, the excise tax also has the same general effect as *all other taxes, viz.*, that the pattern of market demands is distorted from private to government or government-subsidized wants by the amount of the tax intake.[13]

Turning to the income tax, the Austrian method analyzes not only the decline in real income included in the traditional analysis, but five other effects.

First, the income tax makes work more expensive relative to leisure, tending to induce less work. Counterbalancing this effect is the increased marginal utility of money due to having less income. This effect may induce a person to work harder. In either case, the individual's living standard declines in the form of either less leisure or less income.

Second, an income tax penalizes work for money relative to work for a return in kind. This tends to reduce specialization and break down the market, resulting in lower living standards.

Third, the income tax will raise the individual's time preference, leading to an increase in consumption relative to saving. This will leave fewer funds for capital formation and, thus, lower future living standards.

Fourth, the income tax reduces saving and investment in another way. Even though some of the funds raised by taxation would have been saved, expenditure by government officials is

all consumption. All funds saved by so-called transfer-payment recipients represent malinvested funds. If the transfer is discontinued, this saving/investment of nonproducing individuals will be replaced by saving/investment of producing individuals.

Fifth, the income tax taxes the interest payment on savings and, thus, lowers the net interest rate. This induces less saving and investment in marginal investments.

Conclusion

Indifference curve analysis contains several methodological errors. These are sufficient to render its applicability severely limited at best and probably nil in utility analysis. This status should not change unless authors demonstrate the truth of its implicit assumptions. Until then, any conclusions drawn from applying indifference curve analysis should be given the same useless status.

In addition, many errors are committed in the application to selecting an optimal tax type, the foremost being the prior value judgment in favor of the government's claim to an individual's wealth. Perhaps it is time for mainstream economists to reevaluate their methodology.

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[1] For further elaboration of this method in economics, see L. Mises, *The Ultimate Foundation of Economic Science* (Kansas City, Kans.: Sheed Andrews and McMeel, 1976) or M. Rothbard, "Praxeology: the Methodology of Austrian Economics," in *The Foundations of Modern Austrian Economics*, ed. E. Dolan (Kansas City, Kans.: Sheed and Ward, 1976).

[2] For excellent examples of economic science from this method, see L. Mises, *Human Action: A Treatise on Economics* (New Haven: Yale University Press, 1949) or M. Rothbard, *Man, Economy, and State: A Treatise on Economic Principles* (Los Angeles: Nash, 1970).

[3] M. Rothbard, "Praxeology: The Methodology of Austrian Economics," in *The Foundations of Modern Austrian Economics*, ed. E. Dolan (Kansas City, Kans.: Sheed and Ward, 1976), pp. 20–21.

[4] M. Rothbard, *For a New Liberty* (New York: Macmillan, 1978), pp. 23–44.

[5] For a comparison of the effects of a market and hegemony, see M. Rothbard, *Power and Market: Government and the Economy* (Kansas City, Kans.: Sheed Andrews and McMeel,

1977) pp. 262–66.

[6] Ibid., p. 261.

[7] For examples of this analysis, see any intermediate microeconomic textbook, such as J. Hirshleifer, *Price Theory and Applications*, 3rd ed. (Englewood Cliffs, N.J.: Prentice-Hall, 1984), pp. 56–81; or E. Browning and J. Browning, *Microeconomic Theory and Applications* (Boston: Little, Brown, 1983), pp. 27–62.

[8] The original version of the proof appears in M.F. Joseph, "The Excess Burden of Indirect Taxation," *Review of Economic Studies*, Vol. 6 (June 1939), pp. 226–31. Subsequent versions occur in J.R. Hicks, *Value and Capital* (London: Oxford, 1939), pp. 41–45; G.J. Stigler, *Theory of Price* (New York: Macmillan, 1946), pp. 81–82; E.D. Allen and O.H. Brownlee, *Economics of Public Finance* (New York: Prentice-Hall, 1974), pp. 343–45; M.W. Reder, "Welfare Economics and Rationing," *Quarterly Journal of Economics*, Vol. 59 (August 1945), pp. 577–97; A. Henderson, "The Case for Indirect Taxation," *Economic Journal*, Vol. 58 (December 1948), pp. 538–53; K.E. Boulding, *Economic Analysis*, 2nd ed., (New York: Harper & Row, 1984); and E. Schwartz and D.A. Moore, "The Disturbing Effects of Direct Taxation: A Re-evaluation," *American Economic Review*, Vol. 41 (March 1951), pp. 139–48. More recent versions include: E. Browning and J. Browning, *Microeconomic Theory and Applications* (Boston: Little, Brown, 1983), pp. 104–05; L. Truitt and D. Truitt, *Intermediate Microeconomics* (New York: West, 1984), pp. 76–77; D. Watson, *Price Theory and Its Uses*, 3rd ed. (Boston: Houghton Mifflin, 1972), pp. 109–111; D. Kamerschen and L. Valentine, *Intermediate Microeconomic Theory*, 2nd ed. (Cincinnati: South-Western, 1981), pp. 141–43; H. Kohler, *Intermediate Microeconomics* (Glenview, Ill.: Scott Foresman, 1982), pp. 64–66.

[9] For a more complete critique, see M. Rothbard, "Toward a Reconstruction of Utility and Welfare Economics," in *Center for Libertarian Studies: Occasional Papers Series* 3 (New York: Center for Libertarian Studies, 1977), pp. 9–15.

[10] For examples of this construction see the last five entries of note 8.

[11] When the government offers the good at a zero (or very low) price, it creates free riders—those who are not excluded based on their lack of willingness to pay. In turn, when the government raises tax funds to gain the revenue to provide the service, it creates forced riders—those who pay taxes in excess of

the benefit they receive from the service.

[12] M. Rothbard, *Power and Market*, p. 93 (emphasis added).

[13] Ibid., pp. 93–94 (emphasis added).

The Neglect of the French Liberal School in Anglo-American Economics: A Critique of Received Explanations

Joseph T. Salerno

For roughly the first three quarters of the nineteenth century, the "liberal school" thoroughly dominated economic thinking and teaching in France.[1] Adherents of the school were also to be found in the United States and Italy, and liberal doctrines exercised a profound influence on prominent German and British economists. Although its numbers and authority began to dwindle after the 1870s, the school remained active and influential in France well into the 1920s. Even after World War II, there were a few noteworthy French economists who could be considered intellectual descendants of the liberal tradition.

Despite its great longevity and wide-ranging influence, the scientific contributions of the liberal school and their impact on the development of European and U.S. economic thought—particularly on those economists who are today recognized as the forerunners, founders, and early exponents of marginalist economics—have been belittled or simply ignored by most twentieth-century Anglo-American economists and historians of thought.

A number of doctrinal scholars, including Joseph Schumpeter, have noted and attempted to explain the curious neglect of the school in the English-language literature. In citing the school's "analytical sterility" or "indifference to pure theory" as a main cause of its neglect, however, their explanations have overlooked a salient fact: that many prominent contributors to economic analysis throughout the nineteenth and early twentieth centuries expressed strong appreciation of or weighty intellectual debts to the purely theoretical contributions of the liberal school.

In this article, I present evidence demonstrating that economists as diverse in analytical approach and ideological

preference as Eugen von Böhm-Bawerk, Vilfredo Pareto, Francesco Ferrara, Gustav Cassel, and Othmar Spann found scientific merit in the works of various liberal economists. In addition, I suggest that the Turgot-Say subjective value tradition, as embodied and extended in the works of later French liberal economists, was the primary scientific inspiration for two important movements in the evolution of nineteenth-century Anglo-American economics.

One such movement involved British Commonwealth economists writing in opposition to the declining but entrenched Ricardo-Mill orthodoxy in the 1850s and 1860s. Their explicit and thorough grounding in subjectivist liberal economics led them to construct alternative theoretical organons which comprised significant marginalist insights. This movement culminated in the publication of William Stanley Jevons' momentous work (Jevons [1871] 1970).

The second movement, which was heavily indebted to the French liberal Frederic Bastiat, emerged in the post—Civil War United States and involved a thoroughgoing attempt to recast economics as a pure science of exchanges or catallactics whose foundations lie in the subjective data of human wants. American catallactic economists also perfected a tradition of analysis of money, banking, and macroeconomic fluctuations that was traceable to earlier French liberal economists, especially Count Destutt de Tracy. Significant elements of the United States catallactic tradition were embodied in the work of Francis A. Walker, one of the first American economic theorists to achieve worldwide recognition.

In the second section of this article, I adduce significant evidence of the neglect of the French liberal school in the Anglo-American doctrinal literature. The third section surveys the explanations of this oversight proposed by earlier writers and suggests that these explanations fail to come to terms with the extensive influence of liberal economics on the evolution of general economic theory in the latter half of the nineteenth century. Detailed exploration of some of the channels of this influence is undertaken in the next section. The article concludes with a brief suggestion of the direction in which an alternative resolution of the issue must be sought.

Evidence of Neglect

The leaders of the later British classical school dismissed their

French contemporaries as, at best, epigones of Adam Smith and David Ricardo. As Marian Bowley ([1937] 1967, 85) points out, compared to Ricardo's abstract analysis, "Say's work necessarily appeared superficial and to have been directed solely to the elucidation of what Ricardians considered the simple problems of market value."

For example, the arch-Ricardian J.R. McCulloch ([1864] 1965, 13–14) charged that "almost all continental economists," in following Say's utility approach to value and price theory, "stumble at the very threshold of the science" and "have yet to make themselves acquainted with its merest elements."

In the view of J.E. Cairnes ([1873] 1965, 232), "every great step in the progress of economic science (I do not think an important exception can be named) has been won by English thinkers." With respect to the French liberal school, Cairnes wrote that "the most characteristic doctrines of the English school of Political Economy . . . found some of their most powerful champions and most skilful [sic] expositors on the other side of the Channel." Cairnes proceeded to characterize a number of leading liberal economists, including J.-B. Say, Joseph Gamier, J.G. Courcelle-Seneuil, and A.E. Cherbuliez, as "the interpreters to their countrymen of Adam Smith and Malthus, Ricardo and Mill" ([1873] 1965, 313).

Not only did Cairnes portray liberal economists as little more than popularizes of classical doctrines, he also questioned their scientific methods. Regarding Say, he argued that "his reasoning on economic problems is throughout carried on with a side glance at the prevalent socialistic doctrines" (Cairnes [1888] 1965, 30). In particular, Cairnes ([1888] 1965, 31) questioned the *Wertfreiheit* of Say's protomarginal productivity theory of factor pricing, which conceived the various income shares as dependent on "the utility of the functions which land, capital, and labor respectively perform in the creation of the ultimate product." According to Cairnes ([1888] 1965, 31), in this theory, "economic laws . . . are confounded, in order to introduce a *moral* argument in defense of the existing structure of society."[2] In general, Cairnes found "characteristic of the French school . . . a tendency to vicious generalization . . . which, instead of elucidating, darkens the problems."[3] The attitude of the British classical economists, typified by the statements of McCulloch and Cairnes, that the liberal school contributed nothing that was both original and worthwhile to scientific economics carried over to mainstream Anglo-American

economics in the neoclassical era. As T.W. Hutchison (1973, 177) has noted:

> The history of economic thought in the first half or three-quarters of the nineteenth century was and still is portrayed in very Anglo-centric terms, as though the theories which achieved for so long in Britain such an extraordinary dominance and authority . . . enjoyed a similar hold and authority elsewhere in Europe.

This is most clearly evidenced in the fact that standard Anglo-American histories of economic thought typically include treatments of one or two isolated French economists, usually Say and Bastiat, as examples of classical thought on the Continent. Those authors who do identify a specifically French tradition in economics still end up conflating the liberal and classical schools.

For example, Lewis Haney (1949, 847) duly recognizes that "the French school of Liberalists has never been quite identical with the English in its thought." However, Haney (1949, 856) does not acknowledge any substantive doctrinal differences between the two schools and ultimately judges the "Liberalists" to be the "French representatives of the Classical School."

Eric Roll (1953, 319–21) points out that Say's work is firmly rooted in the utility approach to value theory initiated by eighteenth-century Italo-French writers such as the Abbé Condillac. In view of his development and refinement of this approach, Roll (1953, 323) regards Say "as one of the chief founders of the formalist, equilibrium analysis which is the essence of present-day value theory." He also notes that Say "had an almost immediate influence in setting up a tradition. No important French economist after him returned to the Ricardian theory of value" (Roll 1953, 323). And yet, in the same work (318–19), Say is characterized as "an immediate and most faithful disciple of Smith," who gave a peculiar "twist" to the master's doctrines. With the exception of a deprecatory reference to the "optimism" and "providential harmony" characterizing Bastiat's work, Roll (1953, 302) does not discuss Say's French successors in the subjective-value tradition.

The liberal school fares no better in more recent works on economic thought. Two illustrations will suffice.

In his text on economic thought, Henry William Spiegel (1983, 257–60) disposes of Say's contributions in a few pages at the end of a chapter entitled "The Details of Smith's System and

Its Reorganization by Say." For Spiegel (1983, 258), Say's *Traité* was not a scientific contribution in its own right, but "the foremost instrument of propagating Smith's thought in the early nineteenth century." Spiegel attributes the great success of Say's book on this level to the fact that "French writers have the great gift of orderly and coherent exposition, which displays logic and consistence in a manner especially suited for purposes of instruction." Finally, Say's position in the subjective-value tradition is given short shrift by Spiegel (1983, 259), who contends that Say was "a forerunner more of the thought than of the full-fledged theory [of subjective value], of which there were earlier pioneers in French economic thought." Following up on this view, Spiegel (1983, 340) summarily dismisses Say's successors in the liberal school with the comment that "classical economics found a persuasive apologist in Bastiat, but there was little scientific work that would have continued the tradition of Say."

Similarly, D.P. O'Brien, in his survey of the classical economists, does not recognize a unique French tradition in economics that extended beyond Say. Thus he writes: "Say it is true was followed by Destutt de Tracey [sic] but the latter was a minor writer and Say's influence was on the whole limited at least in respect of his value theory. Only in Dublin, at Trinity College, was there a continuing tradition of subjective value theory" (O'Brien 1975, 106).

O'Brien's statement epitomizes the almost total ignorance of nineteenth-century French economics that characterizes modern English-speaking economists and even historians of thought. In fact, as I shall argue below, for over one century following the publication of Say's *Traité*, the keystone of French theoretical economics was precisely the subjective theory of value as it was formulated by Say.

Previous Attempts at Explanation

Since World War II, there have been a number of attempts by doctrinal scholars conversant with the development of Continental economics to explain and rectify the lack of recognition accorded the French liberal school in the Anglo-American literature. In his monumental *History of Economic Analysis*, Joseph Schumpeter (1954, 491) challenged the long-entrenched British classical view of Say as one "who had been able to rise to Smithian, but had failed to rise to Ricardian,

wisdom." Schumpeter (1954, 492) countered with the insight that Say's work "grew purely from French sources" and represented a development of the great "Cantillon-Turgot tradition" which reached back to the Scholastics. More importantly, Schumpeter (1954, 497) called attention to Say's successors "in spirit and in doctrine" as a self-conscious school of thought which, dating from the appearance of the *Traité*, "boasts of a history of about a century."

Additionally, Schumpeter suggested a number of factors that tended to militate against due recognition of the liberal school. First, Say's facility for clear and concise expression or "superficiality of exposition" is easily confused—and was so confused by the Ricardians—with "superficiality of thought." Ironically, it was the very success of Say's *Traité* that "confirmed contemporaneous and later critics in their diagnosis that he was just a popularizer of A. Smith" (Schumpeter 1954, 491). Second, Say's later followers, in reaction to a strong socialist presence in France prior to 1848, were vociferous in their support of laissez-faire and anti-étatiste doctrines and policies, and, according to Schumpeter (1954, 497), "this naturally accounts for the hostility of modern critics [to Say]." Finally, as a result of their almost exclusive focus on economic policy, French liberal economists "lacked interest in purely scientific questions and were in consequence almost wholly sterile as regards analytic achievement" (Schumpeter 1954, 497).

Seven years prior to the publication of Schumpeter's work, Maurice Lamontagne (1947) published a neglected though important article on French contributions to economic theory in which he anticipates some of the main points made by Schumpeter.[4] In this article, Lamontagne (516–17) notes that Say drew his inspiration, especially in value and price theory, from eighteenth-century Italian and French subjective-value theorists such as Galiani, Turgot, and Condillac. By virtue of their adherence to a utility-based explanation of value and price, liberal economists following Say constituted a self-conscious school of thought, one distinct from the British classical school. According to Lamontagne, "the psychological aspect of value, so clearly indicated in Condillac's work, has never disappeared from the French economic literature. Even Say and his immediate disciples followed the tradition; for that reason they never identified themselves with English Classicism" (522).

Lamontagne demonstrates, moreover, that Say's influence on French economics persisted well into the twentieth century. He

concludes that “Say is probably the economist who exerted the greatest influence in France; we have to go back to him if we want to give a full explanation of the trend which economic theory has followed in that country. He set up a tradition which is still strong, even in present-day literature” (LaMontagne 1947, 523).

Finally, like Schumpeter, Lamontagne (1947, 528) attributes the modern neglect of the liberal school to its lack of innovation in pure theory dating from the time of Walras.[5] Unlike Schumpeter, however, he ascribes the alleged theoretical sterility of the school to Say’s methodological aversion to “the use of formal mathematics” (LaMontagne 1947, 523). He argues further that Say’s strictures against the use of mathematics in economics also account for the failure of the Lausanne school and of marginal utility theory to have taken root in France.

In his recent treatise on economic thought, the late Karl Pribram (1983, 191), a European-trained economist, has emphasized the “fairly general indifference of the French nineteenth-century economists to problems of economic theory.” He does not believe that this fact can be fully explained by the liberal economists’ overriding concern to refute the claims of socialism or by a narrow institutional focus absorbed from the Physiocratic tradition. Rather, Pribram (1983, 191) argues along the lines of Lamontagne that strict adherence to methodological precepts originally laid down by Say “prevented the elaboration of concepts of higher abstraction and the development of procedures of refined hypothetical reasoning.”

According to Pribram (1983, 190), Say’s position was a reaction against Ricardian economic theorizing that “started from abstract principles which were not perfectly founded in the facts.” Say “insisted on the use of Baconian methods of observation as exclusive instruments of economic analysis.” Thus, for Say, the task of political economy was to establish “connections among observed facts.”[6]

Peter Groenewegen has recently reaffirmed and elaborated Turgot’s influence on Say and the liberal school. Groenewegen (1983, 599–605) demonstrates that it is precisely in those areas in which Turgot’s influence on Say and French economics is strongest (namely, value and interest theory and economic policy) that the differences between the British classical and French liberal schools are greatest. Even the characteristic French liberal welfare doctrine of “the existence of social harmony under conditions of free trade” is shown to be

foreshadowed in Turgot's writings (Groenewegen 1983, 603). In general, the liberal economists considered Turgot "a hero and great precursor of their views" (Groenewegen 1983, 602).

Groenewegen (1983, 605) also argues that the neglect that Turgot's economics has suffered in the twentieth century is largely due to the fact that "his uncompromising position of economic liberalism was seized upon and fully exploited by the French school and carried to extremes." Nor did it help matters that the liberal school, as the bearer of Turgot's influence in theoretical economics, "was not strong in economic analysis" (Groenewegen 1983, 603).

In sum, doctrinal experts have cited three factors as contributing to the neglect of Say and the French liberal school by English-speaking economists. First, there is the tendency to perceive Say as a superficial expositor of Smithian doctrines, due to the unusual clarity of his style. Second, the tenacity with which Say and the liberal school opposed socialism and government intervention in the economy has provoked the view, especially among modern critics, that liberal economists in general were little more than polemicists and apologists for ultra-laissez faire liberalism. Finally, there is the apparent unwillingness or inability of the school to initiate or absorb innovations in economic theory, especially after the advent of the marginalist revolution.

The problem with ascribing the lack of recognition received by the liberal school wholly to these three factors is that it fails to explain a salient fact: that many prominent nineteenth- and early twentieth-century economists throughout Europe and in the United States expressed a strong appreciation of the purely theoretical contributions of the school. The following section provides a survey of the attitudes of leading Continental economists toward the liberal school and an appraisal of the influence of liberal economic theory on prominent British and American economists who rejected the Ricardian-classical orthodoxy.

The Liberal School's Influence on the Development of Economic Theory

A Survey of Continental Economists

Leading Continental economists were quite cognizant of the French liberal school and its scientific contributions. This is

illustrated by numerous references to individual liberal economists in the scientific works of a doctrinally diverse group of Continental authors.

The Swede Gustav Cassel (1903, 25) credits Say with "having introduced the conception of pure interest into the science" and with having "separated the functions of the capitalist from those of the '*entrepreneur*,' capital from business ability, and interest from the reward for such ability." Cassel (1903, 25) also expresses appreciation for Say's "very complete and profound analysis of the mechanism of the market." With this analysis, Say has "provided the general scheme into which every explanation of particular points or sides of [the interest] problem must be fitted as parts of an organic whole."

In Cassel's eyes, however, Say's explication of the market mechanism has implications for economic science far beyond the narrow confines of interest theory. According to Cassel (1903, 27), "greatest honour" is due Say for having "for the first time, stated *the mutual dependence of demand, price, and cost of production*." Compared to what Cassel conceives as Say's mutual interdependence analysis of market processes, the account of the market mechanism provided much later by the Austrian school is, according to Cassel (1903, 26 n. 1), "much inferior."

Cassel (1903, 39–40, 62) also notes certain "valuable remarks" of Frederic Bastiat on the conception of the lender's function and points to Bastiat as an earlier writer who formulated the idea of time preference "in very much the same words as those used by Böhm-Bawerk."

Finally, Cassel (1932, 310) attributes to Paul Leroy-Beaulieu, as well as to the American Francis A. Walker, the seminal development of a theory of wages which "sees in the productivity of labour the essential determinant of wages" and which, therefore, foreshadows the marginal productivity theory of factor pricing.

Although he is emphatically out of sympathy with their approach, Knut Wicksell ([1934] 1977, 4–5, 27–28) gives recognition to the "harmony economists," including Bastiat, and "their numerous disciples in different countries." In particular, Wicksell ([1934] 1977, 146) identifies Bastiat's and J.R. McCulloch's conception of the nature of interest as representative of the pre-Bohm-Bawerkian view.

In his monumental *History and Critique of Interest Theories*, Böhm-Bawerk (1959) singles out the interest theories of a number of liberal economists for careful and extended scrutiny.

These include Say, Pellegrino Rossi, Bastiat, and Courcelle-Seneuil.

Despite his strong criticisms of Say, Böhm-Bawerk acknowledges the great influence of the latter on the development of nineteenth-century interest theory. Böhm-Bawerk (1959, 80) writes that "despite the obscurity of his views, Say occupies a preeminent position in the history of the theories of interest. He constitutes a sort of junction point at which two of the most important theoretical branches of economic science begin their respective courses."

Although he undertakes a scathing refutation of Bastiat's interest theory, Böhm-Bawerk (1959, 191) is constrained to admit that the theory "created a great sensation in his [i.e., Bastiat's] day . . . and has exerted considerable influence right down to the present" (1884).

In general, however, Böhm-Bawerk appreciates the scientific merit of the endeavors of liberal economists in this field of economics. For example, he refers to Cherbuliez as one of "the more prominent among the economists" who adhered to Senior's abstinence theory of interest (Böhm-Bawerk 1959, 190). Maurice Block is cited as an "outstanding scholar" and "the learned and brilliant author" who penned "richly charged discussions of our theme" (Böhm-Bawerk 1959, 426). Leroy-Beaulieu's work on distribution theory is hailed as "the most highly respected monograph to appear in France on the distribution of wealth" (Böhm-Bawerk 1959, 88). And Rossi is chosen by Böhm-Bawerk (1959, 323) to represent the many economists who offered eclectic combinations of the productivity and abstinence theories of interest, partly because Rossi's "version of the productivity theory has some marks of originality."

The French liberal school had a profound effect on the course of development of Italian economic thought in the nineteenth and early twentieth centuries.

Francesco Ferrara[7] is generally recognized as the key figure in the revival of scientific economics in Italy in the late nineteenth century.[8] He was an unabashed admirer of the liberal economists and adopted most of their theoretical as well as political doctrines. Indeed, Ferrara's views so closely parallel those of the liberal school that modern doctrinal scholars consider him virtually a member of the school. Thus Schumpeter (1954, 513) refers to Ferrara as an "ultra-liberal," and Haney (1949, 833) describes his views on economic method, theory, and policy as similar to "those of Bastiat and the French

optimistic school."[9]

As a proponent of liberal economics, Ferrara considered Say to be the most eminent successor of Adam Smith (Weinberger 1940, 95–96); he also held in high esteem French liberal economists Charles Dunoyer and Michel Chevalier (Cossa 1893, 494). At the same time, Ferrara considered Ricardo's importance to be "overrated," especially in relation to his theory of value (Weinberger 1940, 96), and he belittled the merits of Mill's work (Cossa 1893, 494). Seen in this light, it is clear that Ferrara's innovative "cost-of-reproduction" theory of value, with which he attempted to unify the whole of economic theory, was not intended as a mere improvement on the Ricardian-classical labor theory of value but as the definitive answer to it from the liberal-subjectivist perspective.

As Piero Barucci (1973, 260) argues in his important article on the dissemination of marginalism in Italy, Ferrara's value theory:

> Was meant to be a critical reply to Ricardo's labor theory of value, in which Ferrara did not see any element of subjectiveness. With his reproduction cost he intended to work out a theory of value which took into account both the element of cost and that of utility of goods. The value of a good would be, in this way, the comparison between the utility attributed by a subject to the good itself and the cost he thinks he would have to incur to reproduce the good. Indeed, this theory emphasized the fact of the utility of goods.[10]

Ferrara founded a school that dominated economic thought in Italy from the 1850s to the early 1870s.[11] Like Ferrara, the members of his school "belauded Carey and Bastiat, considered Ricardo and Stuart Mill as dangerous and sophistical theorists and abhorred the German economists" as advocates of socialism and interventionism (Loria 1900, 116).

The historicist and Ricardian reaction of the 1870s in Italy overwhelmed Ferrara and his immediate followers, but it did not end the liberal school's influence on Italian economics.[12] In fact, Ferrara's subjectivist and proto-Austrian theory of value and distribution had prepared the ground for what Barucci (1973, 264) refers to as "the army of marginalist-liberalists"[13] that coalesced in Italy in the years 1886–90, mainly under the influence of the Austrian school.[14] By 1890, the doctrine of

marginal utility was well entrenched in Italy and "the work which Ferrara had patiently prepared was complete at last" (Barucci 1973, 264).[15]

Among the later Italian marginalists who revolutionized public finance theory, Vilfredo Pareto and Giovanni Montemartini owed a substantial intellectual debt to the French liberal economist Gustave de Molinari. In anticipating modern public-choice theory, Pareto and Montemartini drew heavily upon Molinari's path-breaking socioeconomic analysis of the state.

Specifically, Pareto (1966, 18, 108–11) employed Molinari's concept of "tutelage" in developing his own theory of aristocracy.[16] Pareto (1966, 136–37) also integrated his famous theory of the circulation of elites with Molinari's concept of the "silent revolution."[17] At the conclusion of a discussion in his *Manual* of how public office and the taxing process are sought after as means enabling one class to despoil other classes in society, Pareto (1971, 347 n. 8) directs the reader to "the numerous works of G. de Molinari." Finally, we are informed by S.E. Finer (Pareto 1966, 18) that Molinari was "a man whom [Pareto] admired till his dying day."

In his classic protopublic choice analysis of the state as a profit-seeking "public enterprise," Montemartini employs key elements of Molinari's thought. Montemartini ([1900] 1958, 142–43) accepts Molinari's characterization of war as political competition among public enterprises designed to gain and secure income for its proprietors (politicians and bureaucrats) by enabling them to extend their hegemony and taxing power over the populations of rival states.[18] Montemartini ([1900] 1958, 141–42) also affirms Molinari's point that "the suppression of all political enterprise . . . would imply a reduction of costs for the community, because the political enterprise is always a costly form of enterprise, and also because it does not allow free play to private initiative." Barring the economically optimal solution of total abolition of the state, Montemartini ([1900] 1958, 142), following Molinari, expects a reduction in costs as the rights of secession and of formation of competing public enterprises become more widespread.[19]

German economists have always recognized the formative influence of Say and the liberal school on the evolution of theoretical economics in Germany.

Melchior Palyi (1928, 213), in his classic discussion of the introduction of Smithian ideas on the Continent, contends that

"it was the Smith-Say combination rather than Adam Smith alone which, for the following generation in Germany, as all over the Continent, served as the basis for economic thought." On the other hand, "for the German economists, disregarding Thunen, Ricardo remained for at least another fifty years the originator of some rather curious *weltfremd* exaggerations and never became really influential" (Palyi 1928, 191).

Palyi (1928, 214–15) notes that, particularly in the area of value theory, "a strong tradition of theoretical analysis prevailed . . . mostly in the sense of the Smith-Say type of approach." This tradition produced a line of price theorists who formulated supply-and-demand analysis "with an additional emphasis on the subjective factor" and "with closer approach than in the works of the classical writers to modern price-equilibrium concepts." The tradition culminated in the work of F.B.W. Hermann who, starting from basic concepts formulated by Say, developed an approach to price theory "emphasizing consumers' desires and incomes," which came to serve later "as the starting-point of Menger's utility analysis."

In the case of one German theorist who attempted to develop a labor theory of value, which contradicted his earlier subjectivist approach, Palyi (1928, 214) points out that the author was "influenced, as most of the early labor-value theorists on the Continent were, probably more by [the liberal economist] Destutt de Tracy than by Ricardo." Palyi (1928, 209) also recognizes the tremendous influence of Bastiat, whose *Harmonies Économique* "hammered the doctrine of laissez faire and of the natural division of labor into the capitalist minds of the whole Continent."

Hayek (1952, 529) argues that "classical doctrines never really established themselves in Germany" because due "partly to the influence of Condillac and other French and Italian authors of the eighteenth century a tradition had been kept alive which refused to separate value entirely from utility." The writers in this tradition, "of whom Hermann was probably the outstanding and most influential figure . . . tried to combine the ideas of utility and scarcity into an explanation of value, often coming very near to the solution provided by Menger."

Schumpeter (1954, 600) also notes the "utility-theory tradition" that developed in Germany, "perhaps in part under French influence." Hermann is named by Schumpeter (1954, 644) as one who attacked the British classical wage-fund theory, on the basis of Say's insight that "production and distribution

reduce to an exchange of services."

Böhm-Bawerk (1959, 124) has called attention to the fact that the use theory of interest, after its original suggestion by Say, had been worked out "entirely by German economists." In particular, it was Hermann who, prior to Menger's perfected formulation of the theory, "put the theory on a firm foundation."

The influence of the French liberal school in Germany is also recognized by the rabidly anticlassical founder of German "universalist" economics, Othmar Spann. In his history of economics, Spann (1930, 108) refers to Say as "the godfather of Adam Smith's doctrines on the Continent" and declares that it was Say's "brilliancy" in systematizing and propounding the ideas of Smith that played a "notable part in their diffusion." Spann (1930, 109) also points out that the long series of "German Smithians," whose "most notable member" was Hermann, rejected Smith's labor theory of value and, following Say, "tried to explain value as arising out of utility." The textbook by K.H. Rau, an early member of this German "use-value" school, "dominated German economic thought for half a century, and had an influence in foreign countries as well" (Spann 1930, 109).

Spann (1930, 209) also remarks on the fact that "Bastiat's teaching . . . exerted much political influence in Germany as well as France," and supplied the theoretical underpinning of the German Manchester school.

In his discussion of contemporary developments in pure theory, Spann (1930, 307) is led to sharply distinguish between German "universalist theory" and "the individualist Anglo-French doctrine." He (Spann 1930, 308) recommends Leroy-Beaulieu's four-volume treatise on liberal economic theory and policy (Leroy-Beaulieu 1910), along with Marshall's *Principles of Economics* and J.B. Clark's *The Distribution of Wealth*, as important textbooks of "individualist classical economics."

The British Anticlassical Movement

The liberal school had an important and substantive influence on a number of eminent representatives of the anticlassical movement that had begun to flourish in Britain during the two decades between the appearance of J.S. Mill's *Principles* and the marginalist revolution. This heterodox group of anti-Ricardians included among its number not only historicists, but also writers whose roots lay in the subjective-value tradition, such as Henry

Dunning MacLeod, William E. Hearn, and, of course, Jevons.[20]

The weightiest challenge to the prevailing classical attitude toward the French liberal school was issued by Jevons. In his eagerness to work his way free from the hidebound Ricardian orthodoxy, Jevons looked to Continental, and especially French, economic thought for inspiration and guidance. Thus, in the concluding paragraph of his seminal marginalist work, Jevons ([1871] 1970, 261) expressed appreciation for "a long series of French economists from Baudeau and Le Trosne down to Bastiat and Courcelle-Seneuil." These economists, he argued, had been unduly neglected, "because the excellence of their works was not comprehended by David Ricardo, the two Mills, Professor Fawcett and others who have made the orthodox Ricardian school what it is."

Two years later, in a review of Cairnes' *Essays in Political Economy*, Jevons strongly defended Bastiat against Cairnes' criticisms and upheld the scientific merit of the former's work. In a telling passage, Jevons (1873, 6) lauded Bastiat for, in effect, standing J.S. Mill on his head:

> While Mr. Mill has most erroneously denied that consumption of wealth is a branch of political economy, Bastiat logically commenced with human wants and made the consequent demand and consumption of commodities the natural basis of the science of human wealth. It is probable that when the true logical order of treatment of the science comes to be carefully reconsidered, the order adopted by Mr. Mill will be rejected, and that of Bastiat more nearly followed.

In a lengthy preface to the second edition of his *Theory of Political Economy*, Jevons took pains to identify his predecessors in the mathematical and the subjectivist approaches to economics. At one point, he dismisses the classical doctrine of the wage fund and contends that "the true doctrine may be more or less clearly traced through the writings of a succession of great French economists," including members of the liberal school such as Say, Destutt de Tracy, Bastiat, and Courcelle-Seneuil (Jevons [1871] 1970, 67). Jevons ([1871] 1970, 67) is thus led to conclude that:

> The only hope of attaining a true system of economics is to fling aside, once and for ever, the

> mazy and preposterous assumptions of the Ricardian school. Our English economists have been living in a fool's paradise. The truth is with the French school, and the sooner we recognize the fact, the better it will be for all the world.

Finally, in surviving fragments of what was intended to be a comprehensive treatise on economic theory, Jevons (1905, 6) grounds economic science on utility, which he declares to be "plainly the subject matter of economics from beginning to end" and "the alpha and omega of the science." In adopting this approach, Jevons (1905, 7) is explicitly following the French economists, "who, almost from the birth of political economy, have placed a chapter on 'Besoins' [wants] at the beginning of their treatises." In sharp contrast, "with few exceptions, English economists have entirely omitted to notice the groundwork of their own science" (Jevons 1905, 7).

Most importantly, there is clear indication in this work that Jevons (1905, 4–5) has come to perceive the marginal concept itself as a means to amend and complete Say and the liberal school's utility approach to the explanation of price formation. [21] In the same vein, Cairnes ([1874] 1967, 17) criticizes Jevons' value theory as no more than an ingenious attempt to revive Say's theory, allegedly already refuted by Ricardo.

Another important anticlassical writer who owed a substantial intellectual debt to the liberal school was William E. Hearn, an Australian economist, historian, and legal theorist of Irish descent.[22] A contemporary of Jevons, Hearn's major work on economics, *Plutology* (Hearn 1864), was published in Australia in 1863 and was first issued in London a year later (Copland 1935, 19; La Nauze 1949, 96). Although the book received almost no critical notice when it first appeared, it later found use as a university textbook in Great Britain (Copland 1935, 19).

The work eventually garnered high praise from a number of prominent economists, including Jevons, Marshall, Edgeworth, F.A. Walker, Sidgwick, and Ingram (La Nauze 1949, 49–52; Copland 1935, 18–19). Of modern economists, Hayek (La Nauze 1949, 52) has referred to Hearn as a "great economist . . . who had a singular gift for stating original and penetrating observations in the most apt and lucid language."

Jevons recognized Hearn as a kindred spirit in the struggle against the Ricardian orthodoxy. Having favorably cited *Plutology* a number of times in the main body of his *Theory of Political*

Economy, Jevons devotes a section of the concluding chapter to "Professor Hearn's Views." In this section, Jevons ([1871] 1970, 258–59) declares: "I have the more pleasure and confidence in putting forward these somewhat heretical views concerning the general problem of economics, inasmuch as they are nearly identical with those arrived at by Professor Hearn. . . . It would be a somewhat long task to trace out exactly the coincidence of opinions between us."

Regarding this "coincidence of opinions" between Hearn and Jevons, Schumpeter (1954, 826 n. 2) acknowledges that Hearn's work "in parts does read curiously Jevonian," especially in light of the fact that the work contains a clear statement of the concept of diminishing marginal utility. However, Schumpeter hastens to defend "Jevons' independence as regards the utility aspect."[23]

Turning to the issue of the doctrinal roots of Hearn's economics, the very title of his treatise suggests a strong French influence. As Hearn (1864, 7) notes in explanation, *plutology* is borrowed from the prominent liberal economist Courcelle-Seneuil, who adopted the term to designate the "pure science" of economic theory[24] and distinguish it from the "art" of economic policy, to which he applied the term *ergonomy*.

An examination of the substance of Hearn's treatise further reveals a profound doctrinal and expositional affinity with the liberal school. Like most French economists after Bastiat, Hearn commences with a chapter on human wants. As one modern writer (La Nauze 1949, 56–58) has pertinently commented:

> It was an innovation in English political economy to begin a treatise with a chapter on human wants, and to make the satisfaction of wants a central theme. . . . But this is an innovation only in English writing. The prominence which Hearn gives to wants is simply a reflection of his reading from French literature. His chapter is in places almost a transcription from Bastiat's *Harmonies*, and his sub-title echoes Bastiat's frequently repeated phrase, "Wants, Efforts, Satisfactions."[25]

Significantly, it is in this chapter that Hearn (1864, 17–18) formulates the concept of diminishing marginal utility. As Hearn presents it, the concept is a logical deduction from Bastiat's postulates that human wants are unlimited and are hierarchically ordered (Bastiat 1964, 34–46).[26]

In analyzing exchange, Hearn (1864, 237) adopts a sophisticated version of Bastiat's effort-saved approach, which emphasizes that the mutual benefits of exchange derive from the fact that each transactor "obtains at a smaller cost than he otherwise could the means of satisfying a desire or accomplishing a purpose." However, Hearn (1864, 238) advances beyond Bastiat's erroneous deduction that exchange reflects an equality of value between the two goods and anticipates the Jevonian position that "men give objects which they desire less, in return for objects which they desire more."

Hearn (1864, 244–53) employs Say's demand-and-supply approach in explaining the determination of market price. "Desirability" and "difficulty," comparable to Say's "utility" and "scarcity," are seen as the factors underlying demand and supply, respectively. Demand is implicitly treated in the modern sense of a schedule relating quantities purchased to prices, and Hearn (1864, 249–51) gives a clear literary exposition of elasticity of demand or "degrees of desirability."[27] There is also a discussion of the notion of "consumer's surplus" (Hearn 1864, 333, 338).[28]

In distribution theory, where the differences between the French liberal and British classical schools tend to be most pronounced, Hearn stands with the former on most of the disputed issues.

Hearn (1864, 329) explicitly distinguishes the entrepreneur from the capitalist and treats profit as a dynamic and residual income separate from interest. He analyzes wages and interest, not as a question of an aggregate distribution of income shares, but, following Say, as "an ordinary case of exchange" explicable "in the same manner as all other questions of price" (1894, 329). On the issue of land rent, Hearn (1864, 318–19) accepts without qualification the doctrine, peculiar to Bastiat and his followers, that "in human industry the cooperation of nature is always gratuitous." In this view, all rental income is theoretically resolvable into wage and interest income derived from the application of labor and capital to the transformation of natural resources to satisfy human wants (Hearn 1864, 318–25).

Although his discussion of capital may be heavily influenced by John Rae, as La Nauze (1949, 65–71) claims, Hearn (1864, 325–28) adopts the characteristically French doctrine that capital accumulation leads to a progressive reduction in the rate of interest and, hence, in the relative share of the capitalist vis-à-vis that of the laborer in the final product.[29]

Like most liberal economists, Hearn (1864, 389–94) strongly rejects the more pessimistic implications of the Malthusian population doctrine. His opposition rests on Bastiat's argument (Bastiat 1964, 412–42, 557–67) that a greater population brings with it greater per capita income and wealth. This result is deduced from the observed effects of a larger population, first, in facilitating an extension of the market and the concomitant intensification of the division of labor and specialization and, second, in stimulating increased capital accumulation and more intensive exploitation of economies of scale. The wealthier the population, in turn, the more powerfully does the preventive, as opposed to the positive, check to its growth operate.

Neither are there pessimistic implications to be drawn from the law of diminishing returns to agriculture, so emphasized by the Ricardian school. Hearn (1864, 116) argues that the "steady tendency toward diminishing returns" is not peculiar to land but applies to all "natural agents." As Hearn (1864, 117) correctly explains:

> The comparison has generally been made between a particular portion of land, and some other agent to the quantity of which no limit is expressed; and not, as it obviously ought to be, between a specific portion of each. If we direct our attention to some such definite portion of any other natural agent, we shall at once observe that it presents the same phenomena as land.

Moreover, as Hearn recognizes, the operation of the law assumes a static technology and cessation of capital accumulation. However, according to Hearn (1864, 118–19):

> The condition upon which the law of diminishing returns comes into operation is never realized. That condition assumes that the skill and the power of the labourer are unchanged. But the state of knowledge and of skill, and the resources for aiding his labour at the disposal of the labourer, never do remain unchanged.

Hearn's strikingly modern formulation of the law of diminishing returns is inspired by Say and the liberal school's proto-Austrian emphasis on the crucial link between capital accumulation and the growth of labor productivity, both of

which are understood to be theoretically, as well as practically, unlimited.[30] As Say ([1880] 1971, 118) wrote, "the powers of man, resulting from the faculty of amassing capital, are absolutely indefinable; because there is no assignable limit to the capital he may accumulate, with the aid of time, industry, and frugality."

Along with capital, Hearn (1864, 115–16) includes "invention" as another "aid to labour" serving to counteract the tendency to diminishing returns to land or natural resources. The prominent place given to invention in *Plutology* is further evidence of the French, and especially Bastiat's influence on Hearn.[31] This is recognized by La Nauze (1949, 70–71), who observes that the "very prominent place" given to invention in *Plutology*:

> was something new in an English theoretical treatise. . . . The prominence which Hearn gives to Invention is related to his stress upon Wants. . . . Wants are the compelling force in economic life; a confidence that their urgent presence will lead to improvement rather than misery is strengthened by faith in man's inventive ability.

Another noteworthy British anti-Ricardian of this period who drew on the ideas of the liberal school is the obscure, though not uninfluential, writer, Henry Dunning MacLeod. Schumpeter (1954, 1115 n. 7) has summed up MacLeod as "an economist of many merits who somehow failed to achieve recognition, or even to be taken quite seriously, owing to his inability to put his many good ideas in a professionally acceptable form."

Although his efforts were generally ignored by his contemporaries, seminal importance was attached to MacLeod's work by both Marshall and Jevons. Marshall (Haney 1949, 516–17) specifically mentions MacLeod as among the predecessors of Jevons "whose writings before 1870 anticipated much both of the form and substance of recent criticisms on the Classical doctrines of value in relation to cost, by Professors Walras and Carl Menger . . . and Professors v. Böhm-Bawerk and Wieser."

Jevons himself cites MacLeod a number of times in his *Theory of Political Economy*. In the final paragraph of the book, Jevons ([1871] 1970, 261) names MacLeod, along with Hearn and other British and French economists, as one whose work contains "valuable suggestions toward the improvement of the

science" but is neglected because of the "noxious influence" of the dominant Ricardian school. In the preface to the second edition of the book, Jevons reveals MacLeod's influence on his own thought. Remarking upon the "mathematical spirit" of the latter's works, Jevons ([1871] 1970, 57) declares: "While I certainly differ from him on many important points, I am bound to acknowledge the assistance which I derive from the use of several of his works."

MacLeod's important contributions to economics emerge from his endeavor to "lay altogether new foundations of the science" (MacLeod 1857, v). MacLeod was unhappy with the prevailing conception of political economy as the science of the production, distribution, and consumption of wealth. MacLeod (1857, 12) argues that "the subject of Exchanges" constitutes "the limit of the pure science of Political Economy." In other words, for MacLeod (1857, 12), political economy "treats of and includes all things, of whatever nature they may be, whether actually, or potentially existing, that may be bought or sold. These are . . . its proper limits, and its object is to discover and ascertain the laws which regulate their values."

It has been recognized that MacLeod developed his catallactic conception of economics under the influence of earlier British anti-Ricardians (such as Lord Lauderdale and Archbishop Richard Whately) and writers of the French subjective-value tradition, including Condillac, Say, and especially Bastiat (Haney 1949, 513–21; Kirzner 1976, 72–73).

In working out this catallactic approach to the science, MacLeod arrives at a number of protomarginalist insights. For instance, he denies the contention of Smith and Ricardo that the producer confers value on a thing, and he holds that "it is unquestionably certain that it is the *consumer* who bestows value" (MacLeod 1857, 111 emphasis in original). "Value does not spring from the labor of the producer, but from the desire of the consumer" (MacLeod 1857, 127). Political economy is therefore "founded upon the natural wants of the members of Society" (MacLeod 1857, xix).

In analyzing human wants as the foundation of economics, MacLeod (1857, 51) advances beyond Jevons and other early marginalists by explicitly purging the concept of all hedonistic or other psychological connotations. Thus, he reasons that:

> Political Economy has nothing to do with the reasons why people are led to desire certain objects

> rather than others. . . . [It] has no more to do with the reason *why* people desire certain things, than Astronomy has to do with the metaphysical cause of gravity. All it has to do is to accept the fact, and trace its consequences.

In explicating the determinants of "Instantaneous Value" or "the price actually paid in any transaction," MacLeod (1857, 98–99) clearly formulates the principle of diminishing marginal utility under the heading of "services of different degrees of intensity." The general rule, according to which price is determined, is then expressed by MacLeod (1857, 100) as follows: "Price varies directly as the intensity of the service rendered, and inversely as the power of the buyer over the seller [i.e., competition]." This rule is conceived to be "of universal application" and "to comprehend all transactions of whatever nature they be."

> In emphasizing that "the relation between demand and supply is the sole regulator of value," MacLeod (1857, 111), echoing the French subjective-value theorist, Abbé Condillac, anticipates the position of the Austrian marginalists, who were to argue that market prices unilinearly determine, rather are determined by, costs of production incurred. According to MacLeod (1857, 111):

> It is indisputably true, that things are not valuable because they are produced at a great expense, but people spend much money in producing because they expect that others will give a great price to obtain them. . . . Buyers do not give high prices because sellers have spent much money in producing, but sellers spend much money in producing because they hope to find buyers who will give more.

As noted, MacLeod's reconstruction of economics on catallactic foundations and the rich harvest of marginalist insights to which it gave rise were partly inspired by writers in the French subjective-value tradition. In tracing the development of economics as a catallactic science, MacLeod himself emphasizes the important contributions of members of this tradition. Thus, the Physiocrats are designated "the true founders of the Science of Political Economy," and Quesnay is called "the patriarch of modern political economy" and "the Copernicus of Political Economy" (MacLeod 1857, 4–5).

Condillac is viewed by MacLeod as one of the most important writers, along with Adam Smith, to have "emanated from [the Physiocratic] school" (MacLeod 1896, 69). Condillac's treatise, published the same year as the *Wealth of Nations*, "lays down the broad, general outlines of true Economics." Moreover, "in scientific spirit it is infinitely superior to Smith. It is beyond all question the most remarkable work that had been written on Economics up to that time, and it plays a most important part in the history of the science" (MacLeod 1896, 73). In particular, Condillac, like the ancients and the Italian economists of the eighteenth century, "places the origin and source of Value in the human mind, and not in labour, which is the ruin of English Economics" (MacLeod 1897, 70). It is a "fundamental doctrine" formulated by Condillac, namely, that the value of the product determines the costs incurred in producing it and not the other way around, that was later used by Archbishop Whately to send "a deadly shaft into the Economics of Smith and Ricardo" (MacLeod 1896, 71).

In assessing nineteenth-century French economists, MacLeod (1896, 113) severely criticizes Say for abandoning the catallactic approach to economics by defining it as the science of the production, distribution, and consumption of wealth. Say is also condemned for basing value on a nonsubjectivist and contradictory notion of utility as an intrinsic quality of an object (MacLeod 1896, 114).

Despite these criticisms, MacLeod (1896, 111, 120) views Say as a preeminent figure in economic thought, referring to him as a "very distinguished French writer" and to John Stuart Mill as a "disciple of Say," in Mill's rejection of "the fundamental concept of Economics as being the Science of Commerce, or Exchanges, or the Theory of Value." Again, in criticizing Mill's characterization of economics as an "*a priori* science," MacLeod (1896, 120) states that "Mill is in flat rebellion against his master Say," whom MacLeod (1896, 122) himself follows in identifying economics as an "experimental" science that reasons from observed facts and not hypothetical assumptions. Finally, MacLeod (1896, 135) tells us that "the Economics of J.B. Say reigned supreme in France" for one-half century and was introduced by Mill into England "though with many divergences."

The economist whom MacLeod (1896, 148) admires the most is Bastiat, although he apparently had not read the latter's works prior to his initial attempt at reconstructing economics.

Bastiat is described by MacLeod (1896, 135) as "the brightest genius who ever adorned the science of Economics." It was Bastiat's achievement to have "entirely abandoned" the "system of Say and Mill" and to have substituted for it the conception of economics as the "Science of Exchanges" or the "Theory of Value" (MacLeod 1896, 135–36). MacLeod (1896, 138) thinks so highly of Bastiat's contribution that he appears to abandon all scientific reserve when describing it: "Thus Bastiat entirely emancipated himself from the evil influence of J.B. Say. . . . He plucked up by the roots the noxious fallacies which are the Economics of Adam Smith and Ricardo. . . . He simply cleared away the stupendous chaos and confusion and mass of contradictions of Adam Smith and J.B. Say."

The American Catallactic Tradition

After the Civil War, there appeared on the scene a catallactic and subjectivist-oriented movement in American economics which was heavily indebted to liberal economic doctrines, especially as presented in the works of Say, Destutt de Tracy, and Bastiat. Adherents of this approach included such notable economists as Amasa Walker, Arthur Latham Perry, and the former's son, Francis Amasa Walker.

Say exercised an influence on American economic thought that is difficult to overestimate. His *Traité*, in particular, is recognized by doctrinal scholars to have been enormously influential (Haney 1949, 880; Ferguson 1950, 239; Conkin 1980, 28; Bell 1953, 486; Dorfman 1946, 2: 513–14). The book was translated into English in 1821 and went through numerous editions. It was widely used as a college textbook before the Civil War and continued to be used at some schools as late as the 1880s. Moreover, the American textbooks "which were commonly used were adjusted to the teachings of J.B. Say" (Pribram 1983, 206).

Say's influence on the American catallactic economists can be seen in a number of areas. One was methodology, where Say approached economic science as a system of theorematic deductions from a few general and "observable" facts of experience (Roll 1953, 322–23; Rothbard 1979, 45–48; Salerno 1985, 312–14). Say's utility-and-scarcity or supply-and-demand approach to price theory was accepted without reservation as was Say's catallactic approach to distribution theory which "takes value and distribution to be parts of one problem"

(Davenport [1908] 1964, 114). Say's emphasis upon the role of the entrepreneur or "undertaker," as distinct from that of the capitalist, also finds expression in some of the works of the American catallactic tradition.

Tracy's *Treatise on Political Economy* (Tracy [1817] 1970) was translated into English from the unpublished French manuscript under the supervision of his friend and disciple, Thomas Jefferson.[32] The book appeared in 1817, four years prior to the English translation of Say's *Traité*. It was Jefferson's stated hope that Tracy's work would become the "elementary book of instruction" in political economy (Tracy [1817] 1970, i), but the work "found little recognition in the colleges" (O'Connor [1944] 1974, 25). Nonetheless, Tracy's work had a formative influence on Jeffersonian economics and, through the writings of Jefferson himself and his early follower, John Taylor,[33] Tracy's ideas were transmitted to later American economists.[34]

One element of Tracy's thought that was reflected in the works of American economists was his emphatic depiction of society as a purely catallactic phenomenon.[35] Tracy ([1817] 1970, 6, 15, 92) stated it thusly:

> Society is purely and solely a continual series of exchanges. It is never anything else, in any epoch of its duration, from its commencement the most unformed, to its greatest perfection. And this is the greatest eulogy we can give to it, for exchange is an admirable transaction, in which the two contracting parties always both gain. . . . *Commerce is the whole of society*.

It therefore follows that, when the political authorities impose universal price controls that effectively preclude market transactions, "in the strictest sense . . . society is dissolved; for there is no longer any free exchanges."

The liberal economist whose works served as the immediate and explicit inspiration for the American catallactic movement, however, was Bastiat.

The initiator of this movement was Amasa Walker, whose main work, *The Science of Wealth* (1875), was published in 1866 and quickly "attained wide popularity as a textbook (Ferguson 1950)."[36] It went through eight editions and was also translated into Italian (Newton 1968, 6). A condensed "student's edition" was brought out in 1871 and had already gone through four editions by 1875 (Walker 1875, v–x).

In the tradition of Say, Walker (1875, v–vi) founds political economy "like every true science, upon the observation of facts." The foundations of the science reside in two facts (Walker 1875, 18): The "*first fact* of the science" (emphasis in original) and "the foundation of all" is that man "has wants." The second fact is that "these wants can only be satisfied by efforts." Since its premises are thus demonstrably true, Walker (1875, 19) argues, *contra* J.S. Mill, that political economy is a "positive," and not a "hypothetical," science:

> While the one element of wants or desires is secured in the constitution of man's being, the other element—viz., the relation of labor or effort to them —is fixed in the constancy of nature, and the permanence we attribute to the created world. . . . But, as man's being and nature's laws are found in experience, political economy is to be regarded as a positive science. Nothing in its fundamental principles is hypothetical or problematic.

As O'Connor ([1944] 1974, 264) has noted, "Walker extends the tendency to restrict economics to a science of values." According to Walker (1875, 22), political economy is the science of wealth where "the term 'wealth' includes all objects of *value*, and no other." In strict accuracy, political economy is the "science of values," but the term *wealth* is retained "as being more popular, and as nearer to the customary use of the words." *Value*, in turn, is defined catallactically as "the exchange power which one commodity has in relation to another" (Walker 1875, 23).

The notions of wealth and value employed by Walker come directly from Bastiat's *Harmonies*, and, indeed, Walker (1875, 24) declares that, "of all the writers on the subject, no one seems to have been more full and clear in the definition and illustration of value than M. Bastiat." Walker (1875, 24–27) follows this declaration with almost three pages of quotations and examples drawn from *Harmonies*, which are intended to establish the dual proposition that the value of a thing depends on "the will of the purchaser, as determined by his judgment" and "is the service or labor which [the thing] will command in exchange."

Without examining Walker's theoretical system in any great detail, suffice it to say that, in the departments of production and distribution, his doctrines show a much greater affinity with Say, Bastiat, and the liberal school than with the classical school.[37]

For example, Walker (1875, 27–31), like Bastiat, holds that Nature provides her "utilities" gratuitously, "adds *value* to nothing," and, therefore, land as a purely natural agent generates no income return for its owner. Rent, as conceived by Walker (1875, xiv, 325–26), is the "reward of fixed capital," i.e., the interest return to capital invested in land.

Following Say, Walker views the distributive shares accruing to the various factors of production as determined catallactically, i.e., by the laws governing exchange. Thus, according to Walker (1875, 276, 316–17, 320, 332):

> The law of value is the law of wages. . . . [Wages] depend essentially on the conditions of cost, supply, and demand. . . . The average rate of profits . . . is determined by the same law as wages. Profits are merely *wages received by the employer*. . . . If there are more laborers than are wanted, wages fall; if fewer, they advance: just so with employers or business undertakers. . . . Interest will be governed by the law of supply and demand. This is so evident as not to require argument or proof. . . . rents regulate themselves; or, in other words, are governed entirely by the operation of the laws of value.

Newton (1968, 6) has argued that "the primary contribution [of Walker's work], from the perspective of the development of American theory, was its conception of the entrepreneur as a separate productive factor which must be distinguished from the capitalist." This, of course, is completely consistent with the thesis that the primary influence on Walker's economics was the French subjective-value tradition, which, from the time of Turgot, sharply distinguished the function of the "undertaker" from that of the capitalist.[38]

Walker introduced his close friend, Arthur Latham Perry, to Bastiat's work (O'Connor [1944] 1974, 265; Dorfman 1946, 2: 981). Perry's reading of Bastiat inspired him to attempt a radical transformation of political economy from a "science of wealth" to a "science of exchanges."[39]

Perry's description of his efforts in this respect is instructive, because it brings to light the profound influence of Bastiat on his thought. After detailing the early misgivings he had entertained regarding the adequacy of the term *wealth* to encompass the phenomena treated by political economy, Perry (1878, *vi*)

declares:

> My mind had almost reached the conclusion in which it has now rested for many years with perfect composure, when my late friend Amasa Walker . . . recommended to me Bastiat's *Harmonies of Political Economy*. I had scarcely read a dozen pages in that remarkable book, when the field of the science, in all its outlines and landmarks, lay before my mind just as it does to-day. I do not know how much I brought to that result, and how much towards it was derived from Bastiat. I only know that, from that time, Political Economy has been to me a new science.

In Perry's hands, political economy is reformulated as the "Science of Buying and Selling," and its domain becomes "Value, or Sales, or Exchanges" (Perry 1891, 61, 66). Accordingly, the "law of supply and demand" is given center stage as "the most comprehensive and beautiful law in Political Economy," and Perry (1891, 52) devotes his treatise to "filling in" the details of this law.

Perry, like Bastiat, seeks the foundations of the science in subjective phenomena connected with human wants and their satisfaction. This is reflected in his dictum that:

> Invisible Desires and Satisfactions felt in connection with Exchanges are among the most constant elements of human nature; they . . . give birth to the relatively more transient (though visible) data of Efforts and Renderings; while inferences and conclusions and even predictions may be securely drawn from all of these, giving a solid ground for political economy to stand on. (Perry 1891, 31–32)

Perry's understanding of the subjectivist basis of economic activity leads him to a radical and un-Ricardian accentuation of the inherent changeability and unpredictability of economic data and outcomes. This is graphically illustrated in the following quotation (Perry 1891, 42):

> One of the chief charms of Political Economy is the open secret, that it deals not with rigidities and inflexible qualities and mathematical quantities and

> the unchanging laws of matter, but with the billowy play of desires and estimates and purposes and satisfactions, all of which are mental states, and all of which are subject in the general to ascertainable laws, though laws of a quite different kind from those of Mechanics. Values come and they go. Within certain limits and under certain conditions they may be anticipated and even predicted, but never with the precision of an eclipse or the result of a known chemical combination. . . . [The Science of Value] is a science that deals primarily with *persons* and only secondarily with *things*, with mind and not with matter. . . . And all this is so because Values are relative, because announcements in the market-place to-day may stand listed differently tomorrow and very differently next year, and because old values may disappear altogether and many new ones come in, all in accordance with the incessant changes in the wants and labors and fashions and projects of men.

Perry's theories of exchange and welfare are logically linked with his theory of human wants. Exchange is a mutually beneficial enterprise catering to increased want-satisfaction. Any barrier to this enterprise, such as government intervention, *ipso facto*, reduces economic welfare. The laissez-faire policy prescriptions of the liberal school are thus given a logical foundation in catallactic science.[40]

According to Perry (1891, viii):

> As these universal actions [i.e., buying and selling] among men are always voluntary, there must be also a universal motive leading up to them; this motive on the part of both parties to each and every Sale can be no other than the mutual satisfaction derivable to both; the inference, accordingly, is easy and invincible, that governmental restrictions on Sales, or prohibitions of them, must lessen the satisfactions and retard the progress of mankind.

In the theory of distribution, no less than the theories of value, exchange and welfare, Perry is greatly inclined to take up positions originally staked out by liberal predecessors, especially Bastiat.[41] Thus, for example, Perry (1891, 146–47) denies

Ricardo's dictum regarding the existence of "original and indestructible powers of the soil" and counters with the assertion that "There never was any land anywhere fit for cultivation and sale without more or less expenditure of human labor and reserved capital upon it." Moreover, the powers of the land are hardly "indestructible," but "require a constant application of labor and capital to keep up their fertility." For Perry (1891, 148), then "nearly all valuable lands are Capital also, that is to say, products reserved to aid in a further and future production."

From the inclusion of land under the rubric of "capital," Perry deduces several anticlassical and proliberal implications for distribution and production theory.

First, the essential identity of rent and interest is emphasized in the following proposition (Perry 1891, 151): "*the Rent of leased lands whether for buildings or harvests is the same in nature with the Interest on money loaned, and is the measure of the service rendered by the owners to the actual users of the Capital*." It follows that, since labor and capital are the only two productive factors, the only two distributive shares are interest and wages. Accordingly, "the aggregate products created by the joint agency of Capitalist and Laborer are wholly to be divided between the two. There can be no other claimant even" (Perry 1891, 235).

Second, far from denying the operation of the "law of diminishing returns" in agriculture, Perry (1891, 153), like Hearn, naturally broadens it to apply to all forms of capital, though only under static conditions: "Increase of efforts in connection with any form of capital unimproved by new inventions and uninvigorated by fresh skill, though they may indeed increase the aggregate return, cannot . . . *secure an increase proportioned to the increase of the efforts*"[42] (emphasis in original).

Based on the foregoing considerations, Perry (1891, 176) concludes that Ricardo's rent doctrine is "superannuated"; moreover, the doctrine is inadmissible in subjectivist-oriented catallactic science, because, according to Perry, Ricardo "makes everything turn on the Cost of Production of the Produce, which is Effort, ignoring the ever-varying demands for the produce, which is Desire."

Perry's circumscription of economics within the boundaries of catallactics leads him to reject classical teaching in other areas of distribution theory as well. For example, he argues the "irrelevancy of Malthusianism to the Science of Economics" (Perry 1891, 217), based partly on the view that population

questions should properly be regarded as data by a science focussing on exchanges. Perry (1891, 216) reasons that:

> Political Economy presupposes the existence of Persons able and willing to make exchanges with each other, before it even begins its inquiries and generalizations. How they come into existence, the rate of their natural increase, and the ratio of this increase to the increase of food, however interesting as physiological questions, have clearly nothing to do with our Science.

Additionally, while Perry (1891, 217) admits that there is an "abstract antagonism" between "the law of the increase of population" and "the law of diminishing returns from Land," he denies that there exists any "practical tendency" for this to be the case currently or in the future.

In analyzing distribution phenomena as the logical outcome of welfare-optimizing market-exchange processes, Perry affirms the liberal doctrine that the capitalist and laborer are natural allies, and not antagonists, in the production process.[43] Accordingly, Perry (1891, 238) characterizes the relationship between capitalist and laborer as "a case of pure Buying and Selling." As mutual beneficiaries of this ongoing exchange relation, capitalist and laborer coexist as "joint partners in the same concern," and their "interests are identical" (Perry 1891, 193). In normal circumstances, "The Demand of each class for the product of the other will continue unabated. Profits and wages reciprocally beget each other" (Perry 1891, 193). This is necessarily so, because "It is out of the return-service received from the *sale* of the commodities produced jointly by the capitalists and laborers, that both wages and profits must ultimately be paid" (Perry 1891, 195).[44]

To underscore the mutually beneficial catallactic relationship that is the basis of income distribution and to emphasize the fact that "Economics is a science of Persons from beginning to end," Perry (1891, 181, 183, 238) would replace the standard English terms *labor* and *capital* by *labor-givers* and *labor-takers*, respectively, which are English renderings of terms used by contemporary German economists.

Lastly, while Perry adheres to a flexible variant of the classical wage-fund theory (Newton 1968, 87; Bell 1953, 500),[45] he does affirm the proposition, enunciated by Bastiat and accepted by Hearn, that capital accumulation always results in

declining rates of profit and interest and a corresponding increase in the absolute and relative share of labor in the net product (Perry 1891, 233–35).

Perry has been described as "one of the best equipped economists that America produced prior to 1885" (Turner 1921, 179) and his work had a substantial influence in the United States. His textbook, *Elements of Political Economy*, was first published in 1866 and went through twenty-two editions (Bell 1953, 498). Furthermore, as Dorfman (1946, 2: 983) notes, "for almost a quarter of a century it was the most popular treatise in the country." O'Connor ([1944] 1974, 265) judges it "the outstanding book of its period." In 1876, Perry's text ranked third behind Mill's *Principles* and Smith's *Wealth of Nations* on a list of the ten "most salable books on political economy" (Bell 1953, 498). Also, the Japanese translation of the 1876 edition "became one of the main sources for the teachings of economics in the early years when Western ideas were being adopted in Japan" (Bell 1953, 498).

Perhaps the most influential American economist of the last quarter of the nineteenth century, however, was General Francis A. Walker, son of Amasa Walker. It has been said of the younger Walker that he "turned classical theoretical ideas on their heads" (Ekelund and Hebert, 1983, 402). And it may be added that he did so under the influence of liberal economic doctrines that he had absorbed from the American catallactic movement.

Walker had helped his father in preparing the latter's textbook for publication in 1866 (Bell 1953, 495; Newton 1968, 7). He published his own treatise on general theory in 1883 and "the book follows the same outline as his father's [book]" (Bell 1953, 507). The younger Walker's work quickly became "the most popular treatise used in the basic college economics course" and maintained that position until the turn of the century (Newton 1968, 12).

Although Walker diverged from his father and especially Bastiat and Perry on particular questions of scope and method, distribution theory, and labor policy (Newton 1968, 18, 20, 40, 51, 80, 84, 153–54), he generally adhered to the liberal-inspired catallactic approach in most departments of pure theory. Thus, for example, the French historian of thought, Carles Gide (1905, 23 n.1), includes Walker, along with Ferrara and a number of French economists, among the "principal representatives" of the liberal school in the nineteenth century.

Walker (1888, 1) identifies the subject of political economy

as “wealth,” where wealth is defined as comprising “all articles of value and nothing else.” Value is defined in Bastiat’s sense of “power-in-exchange.”

In his discussion of the appropriate methodology of economics, Walker places himself in the liberal camp. While Walker (1888, 27) chides certain liberal economists such as Bastiat for their lapses from strict *Wertfreiheit*, he declares that “the French writers . . . have, in general, been singularly just in their apprehension of the character and logical method of political economy.” He supports the position of Cairnes—which was also that of Say and his father, though Walker does not mention it—that the “premises” of political economy must be factual and realistic as against the position of J.S. Mill and what he refers to variously as “a priori,” “Ricardian,” or “English” political economy that the assumptions of the science are merely hypothetical (Walker 1888, 12–17).[46]

In value and price theory, also, Walker (1888, 87) declares for the liberal rather than the classical line of approach, contending that “neither cost of production nor cost of reproduction determines the power which an article shall have in exchange. . . . Value depends always on the relation between demand and supply.”

Walker, however, does not rest content with a simple supply-and-demand theory, but integrates it with Jevons’ theory of final utility. According to Walker (1888, 101), therefore, “market price always measures Final Utility of the commodity, that is, the utility of it to the last purchaser to whom it is just worth while to buy of it, at that price.”[47]

A few writers (Bell 1953, 508–9; Newton 1968, 104–5) have noted that Walker developed concepts in value and price theory whose origination is usually ascribed to Alfred Marshall. For various reasons, Walker’s contributions in this area were relatively neglected and did not influence his contemporaries (Newton 1968, 106–7). What is of interest here is that these innovations were undertaken by Walker within the framework of the liberal-subjectivist catallactic approach.

The area in which Walker is widely recognized to have made original contributions is distribution theory (Bell 1953, 509–11; Haney 1946, 880–81; Newton 1968, 39–97). Schumpeter (1954, 867) lists the residual-claimant theory of wages, emphasis upon the role of the entrepreneur, and criticism of the wage-fund theory as Walker’s “contributions to economic theory.” But all of these are positions that were long held by liberal economists.

From the time of Turgot ([1898] 1971), French economists, in contrast to their British counterparts, sharply distinguished the dynamic and activist role of the entrepreneur, the recipient of profit, from the relatively passive role of the capitalist, who provided monetary advances to initiate the production process and received interest in return. Newton (1968, 33) points out that Francis A. Walker initially "derived the fundamental concept of the entrepreneur from his father." However, the younger Walker eventually became "fully cognizant of the contribution of a line of French writers who, following the precedent of . . . Say, delineated the function of the entrepreneurs, and separated out of English classical gross profits, the interest earned by the capitalist" (Newton 1968, 33–34, n. 21).

The catallactic theory of wages deriving from Say's writing was inconsistent with the concept of a wage-fund and later French liberal writers would have none of it. Walker (1888, 251) himself comments that "when, in 1874, I had occasion to trace the genesis and the literary history of the Wage Fund Theory, I did not find a single French economist infected by the pernicious doctrine which long held sway across the channel." Walker's positive theory of wages, which stressed the productivity of labor, also had its roots in the Say-Bastiat tradition. This is evidenced by the fact that two prominent French liberal economists, Leroy-Beaulieu and Emile Levasseur, independently and concurrently formulated very similar theories (Cassel 1932, 310; Newton 1968, 83; Levasseur 1900, 370–71, 389–90).

Writers of the American catallactic movement were also greatly influenced in the area of money and banking theory by liberal doctrine. This was manifested especially in their staunch opposition to all but 100 percent specie-reserve banks.

For example, Amasa Walker (1875, 151–241) spends almost one quarter of his 450-page treatise on general theory arguing that a "mixed currency," consisting of specie and fractionally backed bank notes and deposits is unfit to act well as either a standard of value or a medium of exchange.

Perry (1866, 246–66), at least in his early writings, goes further than Walker and even questions "the issue of paper money with a 100 percent reserve" (Bell 1953, 501).[48] For Perry (1866, 254), the "fundamental vice" of all forms of paper money, including convertible bank notes or "credit-money,"

> is that there is no natural limitation of its supply. There is relatively no obstacle to its indefinite

> increase; and therefore the value dependent on such conditions of supply has no sufficient stability; and therefore credit-money is necessarily, and by demonstration, inferior to gold and silver money in the cardinal point of a steady value.

Regarding the U.S. experience with "free banking," Perry (1866, 258) argues that natural commercial occurrences such as foreign payments deficits have led to panics that have

> compelled all the banks to confess, what everybody knew before, that they were unable to redeem their promises. These repeated suspensions of specie payments proclaim the whole system to be unsound. They show that credit is no proper basis on which to build a currency. . . . There can be no hesitation in affirming that the expense of maintaining a gold and silver currency for all the wants of the whole country might have been met many times over from the losses resulting from the bank-paper system.

Nor is Perry (1866, 260–61) much more enamored of the National Bank system, which had just replaced the free banking system in the United States. For Perry (1866, 260–61):

> The mischief of it is, this money [i.e., National Bank note issues] cannot regulate its own quantity; it is not guarded, as gold and silver are, by a natural limitation of supply. The vote of Congress would be sufficient to double or treble its quantity. . . . After all that can be said in favor of it, it is credit-money still, and exposed to the dangers inseparable from credit-money, namely, distrust of the people, the undue enlargement and sudden diminution of its volume, a consequent unsteadiness of value, and inconvertibility.

Finally, Perry (1866, 263) praises Peel's Act as a "well-considered scheme of restraint" on the note issues of the Bank of England. Nevertheless, he contends that, the stated intention of the framers of Peel's Act notwithstanding, "the present convertible money of Great Britain does not in fact vary so perfectly in volume and value as a metallic money would do under the impulses of trade" (Perry 1866, 264–65). In fact, Perry

(1866, 265) argues that the very existence of Peel's Act "shows that there is something factitious and unnatural about paper money, when so rigid a system of restraint is considered needful to prevent disastrous fluctuations in volume and value."[49]

F.A. Walker ([1878] 1968, 524), in his influential treatise *Money*, critically analyzes the various arguments in favor of fractional-reserve banking and concludes with the proposition that "a paper issued above the amount of specie held for redemption, however carefully managed, tends to excess in greater or less degree."[50] Elsewhere, Walker (1888, 171) argues that "there resides in bank money, even under the most stringent provisions for convertibility, the capability of local and temporary inflation."

Now hostility to banks in general and to fractional-reserve banks in particular has a long tradition in American economic thought, traceable back to Thomas Jefferson. Jefferson's attitude toward banks is illustrated in one of his typical attacks on the Federalists for trying to establish an aristocratic government "founded on banking institutions, and moneyed incorporations under the guise . . . of their favoured branches of manufacturers, commerce and navigation, riding and ruling over the plundered ploughman and beggared yeomanry" (Dorfman 1946, 1: 444). Jefferson "attacked any issue of bank paper beyond the supply of specie," and, in reaction to the Panic of 1819, he proposed a plan that would lead to "the eternal suppression of bank paper" (Rothbard 1962, 137, 140).

The leading Jeffersonian political economist, John Taylor, elaborated and systematized Jefferson's critique of the Federalist's drive for a "financial aristocracy, based upon a monopoly of monetary powers and privileges" (Wilhite 1958, 335). According to Taylor ([1814] 1950, 268, 313):

> It is . . . the office of paper currency to transfer wealth . . . from man to man, or from nation to corporation. . . . So long as it represent wealth, corporations able to create it [i.e., banks] can . . . draw wealth from the rest of the nation by its means. . . . If then a nation bestows a pecuniary income on an order of nobles or bankers, it conveys so much of its services to this order as the money represents. . . . It is clear that nations, by giving any species of currency to an order or interest, will give it a title to every species of service from the

> multitude; that the revival by law of a title to such services through the intervention of a currency is a substantial revival of the feudal system.

Taylor's perception of banks as privileged, monopoloid, and inherently inflationary institutions, fundamentally inconsistent with a free society, led him to oppose private as well as public banks (Wilhite 1958, 342; Conkin 1980, 65–71; Dorfman 1946, 1: 301–4).

The Jefferson-Taylor analysis of banks, in turn, can be traced directly to the work of Destutt de Tracy. As Leonard Liggio (1984, 81–82) has recently emphasized, with respect to banking theory, "American economic thought in the 19th century was dominated not by English economic writing but by the political economy treatises of Jean Baptiste Say and Destutt de Tracy, both of which were published in America through the efforts of President Thomas Jefferson."

In his brief but incisive analysis of fractional-reserve banks, Tracy ([1817] 1970, 104) emphatically argues that "these large companies" always have their origination in monopoly privilege granted to them by government, which they receive in exchange for low-interest or gratuitous loans to the political authorities. "It is thus that the one sells its protection and the other buys it" (Tracy [1817] 1970, 105). Inevitably, however, the privileged bank's note issues expand to such an extent that the bank is unable to maintain convertibility and it then is compelled to seek from government the additional privilege of suspending redemption of its outstanding note liabilities. When the bank receives authorization to suspend specie payments, "Society finds itself in the full state of *paper money*. . . . It is thus all privileged companies end: they are radically vicious; and every thing essentially bad always terminates badly" (Tracy [1817] 1970, 105).

After a sophisticated account of monetary inflation, which emphasizes its sequential diffusion through the economy and its nonneutral "distribution" effects, Tracy ([1817] 1970, 93–94) concludes:

> In vain would it be said that paper money, may be used, without being abused to this excess, constant experience proves the contrary; and, independently of experience, reason demonstrates . . . that it is not made *money*, that is to say having a forced circulation, but on purpose to be abused. . . . All

paper money is a phrensy of despotism run mad.

Even in the case where banks are "so sophisticated" not to produce the "horrible danger" of inconvertible paper money, "the advantages promised by them would be illusory or very inconsiderable, and could add but very little to the mass of national industry and wealth" (Tracy [1817] 1970, 105). Tracy therefore prefers a 100 percent specie currency.

Conclusion

My purpose in this article has been to demonstrate that the contributions of the French liberal school to economic theory were recognized and utilized by some economists who are generally considered to have played prominent roles in the initial development of modern marginalist economic theory or who have anticipated and influenced such development. If this much is accepted, then the attempt of Schumpeter and other scholars to explain the Anglo-American neglect of the liberal school in terms of the latter's analytical sterility or indifference immediately founders. While an alternative explanation has not been provided, considerable progress has been made by radically shifting the focus of research from alleged analytical shortcomings of the liberal school to the identification of the institutional factors that have impeded recognition by (most) English-speaking economists of the substantive theoretical content of liberal economics.

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[1] The school is perhaps better known to Anglo-American economists as the "optimist" school. However, the latter is an epithet invented by opponents of the school and explicitly repudiated by those whom it was intended to designate.

[2] Ironically, Cairnes ([1888] 1965, 31 fn. 2) characterized this theory as "no doubt, irreconcilable" with Say's supply-and-demand approach to the determination of wages.

[3] This statement appears in a letter written to J.S. Mill by Cairnes in 1870 and cited by de Marchi (1973, 92). De Marchi (1973, 92 fn. 45) also reports that, in an earlier letter to Cairnes, Mill had expressed the opinion that "French political economists shared largely in the defects of French philosophic writers in general, these being 'decidedly inferior in closeness and precision of thought to the best English.'"

[4] Schumpeter does not appear to have been familiar with Lamontagne's contribution, since it is not cited in his *History of Economic Analysis* (Schumpeter 1954). Marian Bowley was another writer whose contribution in this area seems to have been neglected by Schumpeter. Bowley ([1937] 1967, 66–116) sketched out the "Continental" subjective-value tradition in her

discussion of the doctrinal roots of Nassau Senior's subjectivist-oriented approach to the theory of value.

[5] While Walras certainly emerged from the Say tradition, there were important methodological issues separating him from the mainstream of the French liberal school, including the latter's uncompromising rejection of mathematical economics.

[6] For treatments of Say's methodology that emphasize its procedure of deductive reasoning from factual premises, see Roll (1953, 322–23), Rothbard (1979, 4549), and Salerno (1985, 312–14).

[7] For an overview of Ferrara's contributions to economic theory, see Weinberger (1940).

[8] The Italian historicist and socialist, Achille Loria (1900, 117; 1891, 61), one of the fiercest contemporary opponents of Ferrara's economics, refers to Ferrara as "the greatest Italian economist of the nineteenth century" and "without doubt, the greatest genius of which the economic science of our country boasts."

[9] This accords with the view of Ferrara's contemporaries, who saw him as an Italian representative of the French liberal school. For example, Cossa (1893, 494) classifies Ferrara as a "scientific optimist," Rabbeno (1891, 446) calls him "the prince of the Italian liberals," and Loria (1891, 74) refers to "the absolute domination of Franco-American optimistic theories under the intellectual dictatorship of Ferrara."

[10] Thus, the older view, as expressed by Weinberger (1940, 97 fn. 20), that Ferrara was inconsistent in "admitting the equivalent importance of utility in respect to the quantity of value" rests on a fundamental misconception of Ferrara's research program. A striking exception to the older view of Ferrara's work as a belated rearguard action to preserve the classical system is presented in the work of Arthur Marget. Marget ([1938–42] 1966, 2: 355–56) views Ferrara as a protogeneral equilibrium theorist, whose literary exposition of the "circular flow" of economic activity was superior to Walras's in its emphasis upon "the mutual interdependence of economic phenomena *in time*."

[11] On the dominance of Ferrara's school during this period, see Cossa (1893, 493–513), Loria (1891), and Rabbeno (1891).

[12] Details of this reaction and the controversy it provoked can be found in Rabbeno (1891 442–46), Cossa (1893, 504–6), and Haney (1949, 832–35).

[13] Barucci (1973, 264) explains that "this double name is on the banner round which economists rallied in Italy."

[14] While the acknowledged leader of this movement, Pantaleoni, developed marginalism "along the Gossen-Jennings-Jevons line . . . the Austrian school was the most influential among Italian economists in the period 1886–90" (Barucci 1973, 257, 265). It was, in fact, the liberal Augusto Graziani who did the most to familiarize Italian economists with Austrian contributions (Barucci 1973, 261–62). In declaring the victory of Austro-marginalism over the doctrines of the Lausanne school in Italy, Loria (1926, 909) states:

> Indeed, whilst the liberal school from the beginning praised the mathematical method as being the only means of bringing to light the laws of economics, its later representatives have admitted this method has not up to the present discovered any economic truth hitherto unknown. . . . In the same way, whilst formerly the liberal economists applying purely intellectual mathematical methods proclaimed the inter-relationship of all economic phenomena, and excluded entirely from our science the principle of causality,—on the other hand their more cautious successors have restored to this principle the crown of economic investigation.

[15] Weinberger (1940, 100) also notes the parallel between the Austrian imputation theory of factor pricing and Ferrara's application of his law of reproduction to the phenomena of distribution.

[16] For a discussion of this concept, see Molinari ([1904] 1971, 81–95, 144–53) and Hart (1981–82, 5: 416–21).

[17] On the "silent revolution," see Molinari ([1904] 1971, 138–43, 168–74).

[18] War as a form of political competition is discussed in Molinari ([1904] 1971, 19–28) and Hart (1981–82, 5: 421–23).

[19] On these and related points, see Molinari (1977) and Molinari ([1904] 1971, 75–101).

[20] As Hutchison (1973, 185) has pointed out, "there was much less agreement between the rebels regarding what should replace the orthodox theories than that these theories should be rejected. For nearly two decades there was in Britain a somewhat confused interregnum."

[21] On the problem that Say failed to resolve in relating

utility to price and that led to the subsequent victory of Ricardian cost-of-production analysis over utility analysis in British value theory, see Bowley (1972, 15–18).

[22] For overviews of Hearn's life and work, see Copland (1935) and La Nauze (1949, 45–97).

[23] La Nauze (1949, 87–88) also defends Jevons' originality, asserting that what Jevons found "in *Plutology* was a welcome and encouraging confirmation of some of the lines of thought he had been developing." Hayek (1952, 529 n. 1), however, expresses a somewhat divergent opinion.

[24] La Nauze (1949, 97–98) supplies a brief etymology of the word in economic discourse. Also see Gide and Rist (1948, 380) and Copland (1935, 19–20).

[25] In countering Cairnes' claim that Bastiat had no following, Jevons (1873, 6) points out that Courcelle-Seneuil's general approach to economics, "followed since by Professor Hearn," derives from Bastiat.

[26] Cf. Copland (1935, 21–22, 30–31). La Nauze (1949, 72), however, strains to deny the claim of Jevons, Edgeworth, and others that "Hearn grasped the idea of diminishing marginal utility in a way relevant to the theory of exchange."

[27] Copland (1935, 31) argues that Hearn "had probably a clearer conception of the nature of demand than most of the classical economists, and among British economists he suggested principles of diminishing utility and elasticity of demand before their classical statement by Jevons."

[28] La Nauze (1949, 76) notes the discussion but belittles its significance.

[29] This is not to say that the capitalist suffers a diminution in the absolute size of his interest income, because, as Hearn (1864, 328) points out, "although the capitalist's share of the product is thus diminished, yet as the product itself continues to increase, the smaller share of the larger product is more than equivalent to the larger share of the smaller product." Were this not the case, "there would be no motive for investment," since "the increase of investment implies gain." The foregoing argument was initially propounded by Bastiat (1964, 92–96).

[30] La Nauze grudgingly admits that Hearn's statement of the law of diminishing returns constitutes a definite advance over that of earlier economists, including the two Mills. Thus, La Nauze (1949, 83–84) comments that "[Hearn's] view shows a change of emphasis, not a new approach. . . . Properly worked out it could lead to a more satisfactory discussion of the question

of the combination of factors and the variation of costs than earlier economists were able to achieve."

[31] Hearn (1864, 167–99) devotes two full chapters to a discussion of the causes and consequences of invention. In his *Harmonies*, Bastiat (1964, 284–301) places great emphasis on the market processes by which individual acts of capital accumulation, invention, and appropriation of natural resources are translated into rising living standards for the entire economy.

[32] On the peculiar circumstances surrounding the translation of Tracy's manuscript into English, see Dorfman (1946, 1: 434, 2: 532) and O'Connor ([1944] 1974, 25–26).

[33] For discussions of Taylor's economic thought, see Conkin (1980, 43–76), Dorfman (1946, 301–4), Grampp (1945), Stromberg (1982, 35–48), Foshee (1985), Macleod (1980), and Wilhite (1958, 320–46).

[34] Tracy's influence on Taylor is noted by Stromberg (1982, 41, 47–48 n. 32) and O'Connor ([1944] 1974, 25–29, 57). Also, Teilhac (1936, 33, 107) refers to "the Franco-American tradition of Destutt de Tracy, Say, Bastiat, Raymond, Carey and George."

[35] Recognition of the strong catallactic orientation of Tracy's economics can be found in Kirzner (1976, 72) and O'Connor ([1944] 1974, 28).

[36] Bell (1953, 495, 498) writes that Walker's book "was widely used in its day. . . . [It] was well received and extremely influential."

[37] For an insightful discussion of Walker's rent theory that emphasizes its non-Ricardian orientation, see Turner (1921, 173–77). Bell (1953, 495–98) and Dorfman (1946, 2: 749–52) also present good summaries of Walker's thought.

[38] However, Newton's overall conclusion is that A. Walker's work "was, in the main, in the orthodox English 'classical' tradition" (Newton 1968, 6). Newton's assessment of Walker's doctrinal heritage is curious, in view of the fact that Newton (1968, 100) himself recognizes that Walker's value and price theory is "considerably influenced by Bastiat's approach."

[39] For a discussion of Bastiat's influence on Perry, see MacLeod (1896, 154–55). In his later work, Perry (1878, x–xi) also acknowledges intellectual debts to MacLeod, Jevons, and F.A. Walker. Also, Perry's son and biographer, Carroll Perry (1923, 7), briefly discusses the doctrinal influences on his father's work.

[40] Rothbard's judgment that the writings of the French

liberal school "reveal that their *laissez-faire* conclusions were post-judices—were judgments based on their analysis, rather than preconceptions of their analysis" (Rothbard 1977, 30) certainly applies to Perry.

[41] A critical summary of Perry's distribution theory is provided by Turner (1921, 182–90).

[42] Turner (1921, 188–89), however, points out several confusions marring Perry's treatment of the law of diminishing returns.

[43] Thus, Perry's work "denies the old category of distribution" and focusses on "'the natural God-appointed test of free exchanges'" (O'Connor [1944] 1974, 266). Commenting on the original features of his own work, Perry (1878, viii–ix) declares: "I dropped entirely the long-maintained distinctions between the Production, Distribution, and Consumption of Wealth."

[44] For a discussion of Perry's theory of the division of the "return-service" between wages and profits, see Bell (1953, 501–2). It should be noted that Perry, closely following Bastiat, diverges from the mainstream of French liberal distribution theory in ignoring the analytical distinction between the capitalist and entrepreneurial functions and income shares.

[45] Under the force of F.A. Walker's influential criticisms, Perry (1878, x–xi) was led to surrender almost the entire original concept, although he continued to employ the term *Wages-Fund* in his theory of wages.

[46] In his discussion of Walker's rejection of the Ricardo-Mill methodology, Newton (1968, 19–23, 27) overplays the influence of the German historical school on Walker, while ignoring the methodological tradition of Say, which Walker absorbed through his intimate familiarity with the works of his father and Perry. Newton's oversight is understandable, in light of the fact that Walker (1888, 1–33) appears to have taken pains to avoid references to the ultra—laissez faire American catallactic school, replacing them with citations of the scientifically more respectable works of Senior and Cairnes, whose positions on the scope and method of economics paralleled or were influenced by Say.

[47] Newton (1968, 103–4) denies that the concept of final or marginal utility plays a significant role in Walker's exposition of price theory.

[48] By the publication of his most mature work in 1891, however, Perry (1891, 286–302) had retreated to a defense of

the fractional-reserve, free-banking system.

[49] Despite his advocacy of a 100 percent specie currency, Perry does not oppose market-produced "near moneys," which operate to naturally economize on the costs of a specie standard. Thus Perry (1866, 265) argues that his position in favor of an all-specie currency

> does not exclude the freest use of those convenient economizing commercial expedients, such as bills of exchange, drafts, checks, money-orders through the post office, and so on, which are sufficient to prevent for the most part all burdensome transfers of coin. . . . Let the currency stand securely in its own right as value-money [i.e., gold and silver], and then the various forms of paper credit will safely come in to remove all the inconveniences and secure all the advantages of a perfectly sound, and everywhere acceptable, and a naturally self-regulating money.

[50] Newton (1968, 111) writes that Walker's *Money* "became the standard work by which to train the increasing numbers of teachers and students that were emerging on the American scene in the two decades following its publication." Also see Dorfman's reference to Walker's authority on monetary economics (Dorfman 1946, 3: 103).

The Austrian Economists and the Late Hapsburg Viennese Milieu

Arthur M. Diamond, Jr.

Ludwig von Mises observed, "It is customary to trace the influence that the milieu exerted upon the achievements of genius" (1969, p. 9). He goes on to suggest that, whatever the general merit of the custom, it is unsound when applied to the great thinkers of Austria. Not heeding Mises' warning, eminent philosopher and historian of science Stephen Toulmin, along with his coauthor Allan Janik, argues in *Wittgenstein's Vienna* that late Hapsburg Viennese intellectuals had strikingly similar philosophical backgrounds, problem sets, and ethical outlooks. The book is in part an attempt to isolate the "general philosophical framework which was the common possession of musicians, writers, lawyers and thinkers of all kinds" and to focus on "the common themes and problems . . . of writers, thinkers and artists in all fields" (pp. 29 and 30). In this article, I shall argue that there was greater diversity in the problems and philosophical backgrounds of Viennese intellectuals than *Wittgenstein's Vienna* suggests. Since we are to deal with a claim that applies to intellectuals in "all fields," it will be profitable to examine a field that in *Wittgenstein's Vienna* is disposed of in one sentence: economics. The one sentence states that: "Menger's Marginal Utility Theory—so characteristically Viennese in its emphasis upon the psychological and subjective factors which underlie value—is still a central tenet of many modern economists" (p. 53). That economics was more significant in the intellectual life of Vienna than the space devoted to it by Toulmin and Janik would indicate is attested to by historian Arthur May: "In no sphere of thought were Austrians more conspicuous than in economics" (1951, p. 318).

This article will be divided into three sections. In the first, I shall seek to learn whether we find in the Austrian economists a further instance of the dominance in Vienna of Kantianism. The second section will deal with the Austrian theory of marginal utility in order to discover whether it is in fact connected more

to subjectivist ethics (associated with Tolstoy and Kierkegaard in *Wittgenstein's Vienna*) or to independent developments in the science of economics. I shall attempt to deal in the third section with what we can learn from Austrian economists about the general Viennese milieu. In particular, I shall be concerned with the questions of whether Hapsburg society was indeed stagnating and decadent and whether there was in fact no opportunity for involvement in the world as an alternative to introverted subjectivism.

Neo-Kantian versus Non-Kantian Influences

In *Wittgenstein's Vienna*, the intellectual atmosphere of pre-1919 Vienna is described as a "neo-Kantian environment" (p. 22). The Kantian influence has been affirmed by some, ignored by others, and disputed by a few.[1] The central message of Kant that is claimed by Janik and Toulmin to have influenced Viennese culture is that the structure of the mind limits what we can say and know. Although the main alternative to Kantian influence usually mentioned is Aristotelian influence, I shall contrast the a priori deductions from pure reason of a Kantian with "empiricism" defined very broadly so as to include not only Aristotle and modern positivism but also the ideal-types methodology of Weber. In order to learn whether Viennese intellectual life was at root thoroughly Kantian, I shall look for a Kantian influence on five of the most eminent members of the Austrian school of economics: Carl Menger (1840–1921), Friedrich von Wieser (1851–1926), Eugen von Böhm-Bawerk (1851–1914), Ludwig von Mises (1881–1973), and Friedrich von Hayek (born 1889).

The distinction between empiricism and Kantian methodology for the Austrian economists was not one between a positivist and a nonpositivist view of the acquisition of economic knowledge. None of them saw economics as an empirical science in the narrow positivist sense, although they all granted the utility of empirical (historical) studies. The distinction was rather one between seeing, on the one hand, the absolute, eternal economic laws as having their source in ideal types abstracted from events in the world and seeing, on the other hand, those laws as having their source in the transcendental categories of our minds.

In his article on Böhm-Bawerk, Emil Kauder says that "In the Austria of this time, Aristotelianism and ontology took the place

of Western empirical skepticism and pragmatism."[2] The Aristotelianism to which he refers is nowhere more explicitly evident than in the methodological works of Carl Menger, the founder of the Austrian school of economics. Of Menger's early intellectual development, Hayek reports that, regrettably, little is known.[3] But we need not be experts on Menger's background in order to know that he was positively influenced by Aristotle. Menger's *Problems of Economics and Sociology* (better translated as *Investigations into Method*) provides clear evidence. Menger, for instance, says that Aristotle was superior to Plato because Aristotle "was not only a splendid speculative thinker . . . but was also an indefatigable observer."[4]

Hayek affirms the view, disputed by others, that Menger wrote the *Investigations into Method* in response to the total neglect by economists of his *Principles of Economics* (1952b, pp. 538–39). If, in fact, the doctrines of the *Investigations* are not a natural outgrowth of the *Principles*, but only a post hoc apologetic, then it might be argued that in what he actually did in economics (as opposed to what he said later about what he did), Menger owed little to Aristotle. But Hutchison notes that in the footnotes to the *Grundsatze*, Aristotle is one of the most frequently cited authorities (1973, p. 32). Menger's contemporary, Oskar Kraus, claimed in particular that Menger's work had much in common with Aristotle's *Topics* as interpreted by Brentano.[5] So the Aristotelian influence seems to be present throughout Menger's career and not just in his later methodological work.

Menger's debt to Aristotle provides indirect evidence that Menger was a non-Kantian. In addition to the indirect evidence, Kauder has found direct evidence in the Menger library at the Hitotsubashi University in Japan. The library is valuable for settling issues of intellectual influence because of Menger's habit of heavily marking and annotating books that he read. The value of the library collection is somewhat limited, however, because many of Menger's philosophical holdings were retained by his son. In spite of this, Kauder finds evidence, mainly in notes to a history of philosophy text by Überweg, that Menger "objected to Kant's main idea that the logical concepts (a priori categories) are necessary forms of our mind and have no bearing on the independent existence of reality" (Kauder, 1959, p. 60).

Of Wieser, the second Austrian economist whom I shall consider, Hayek has said: "In him the civilization of Old Austria found its most perfect expression" (1952b, p. 567).[6] That

Wieser's intellectual background was conducive to Aristotelianism is indicated by Emil Kauder when he notes that "The Viennese Schottengymnasium, the intellectual nursery of many famous Austrians, including Wieser, required, even after 1918, the students to read Aristotle's metaphysics in the original Greek."[7] Let us examine a paragraph from Wieser on methodology to see whether or not it confirms our expectations of Aristotelian influence:

> The method of economic theory is empirical. It is supported by observation and has but one aim, which is to describe the actual in its entirety, as purely empirical sciences are wont to do. They strive to remain true to nature in every minute detail. But the economist is like an historian unfolding an individual historical course of events or a statistician summarizing a series of cases. He endeavors to place before us the typical phenomenon, the typical development, and to eliminate whatever may be subordinate, accidental or individual. (1929, p. 5)

This sounds very Aristotelian in that the pursuit of the "typical phenomenon" seems identical to the pursuit of the essence of what is experienced, i.e., Wieser seems to have an essentialist methodology that differs little from Menger's.[8] Wieser's description of his method as psychological on the pages previous to this passage might lead one to suspect a Kantian influence.[9] But Wieser notes that the designation of his method as psychological "may lead to misunderstanding" (p. 3). In the end, he seems to mean nothing more by it than that we all have a common stock of economic experience upon which we may draw for the ground of our economic theorizing. If methodological comparisons are to be made on the basis of this passage from Wieser, then perhaps the most fruitful one would be the similarity of Wieser's methodology in economics with Weber's in sociology.[10]

Of the founding triumvirate of Austrian economics, Böhm-Bawerk probably was the least concerned with problems of method.[11] In spite of this, Emil Kauder believes himself justified in declaring that Böhm-Bawerk and Menger "were Aristotelians" (1958, p. 414x). He apparently makes this judgment largely on the basis of a study by Oskar Kraus textually comparing Aristotle's theory of imputation with Menger's and

Bohm-Bawerk's.[12]

Hayek tells us that Böhm-Bawerk was "the teacher at the university who had the greatest influence on [Ludwig von Mises]" (1973, p. 1245). Since, as we have seen, Böhm-Bawerk was the least preoccupied of the Austrian economists with methodology, this may help to explain why it would have been easier for Mises to strike out in a non-Aristotelian methodological direction than if he had studied primarily under Wieser or Menger. Mises rejected the Aristotelian methodology of the other Austrian economists in order to adopt a Kantian position, as his methodological comments in *Human Action* as well as his remarks in *Epistemological Problems of Economics* and *The Ultimate Foundation of Economic Science* make clear.[13]

The final Austrian economist to be considered is Friedrich von Hayek. When I had an opportunity to ask him for his comments on *Wittgenstein's Vienna*, he mentioned that it did not give enough attention to the importance of Aristotle in the intellectual scene. He noted, for example, that the influence of Aristotle (as opposed to Kant) was greater in the Austrian universities than in the German ones.[14] He did not say, however, that he was himself an Aristotelian. Although in his own early work, there is little direct reference to methodology, [15] his later methodological works evidence an increasing tendency toward the epistemology of Popperian positivism.[16] Popper, who himself studied under Mises in Vienna, was from an early age impressed by Kant and claims that "what still divides me from most contemporary philosophers" is their essentialism (an Aristotelian doctrine).[17] Hayek's own studies under Mises and his intellectual ties to Popper might help to account for his claim that "On the issue of the theory of knowledge, I am probably a Kantian more than anything else" (1975b, p. 8).

Of the five Austrian economists whose epistemological background we have considered, three can be classed as non-Kantians and two as neo-Kantians.

Marginal Utility

In this section, I shall consider the doctrine that is generally considered the Austrian school's main claim to fame: the theory of marginal utility (alternatively called the theory of subjective valuation).[18] Three issues about this theory will be raised. (1) To what extent can non-Kantian or neo-Kantian influence be seen? (2) Does the doctrine of subjective value in economics

have any relation to subjectivity in ethics? (3) To what extent did the subjective value doctrine arise out of the late Hapsburg milieu?

I shall begin the discussion of the marginal utility doctrine by taking up the general question considered in the first section of this paper, *viz.*, is the doctrine traceable to neo-Kantian or non-Kantian (largely Aristotelian) influences? Since Carl Menger is the originator of the marginal utility theory, the influences upon him concern us most.[19] Besides circumstantial evidence, such as Bohm-Bawerk's comparison of the marginal utility doctrine with the Copernican revolution, there would appear to be two different sorts of arguments that could be given for a Kantian influence.[20] The first would argue (1) that Menger's milieu was Kantian and (2) that Menger was significantly influenced by his milieu. We have seen in the first section of this article that there are grounds for doubting the first assertion. But more importantly, we have seen that if the first assertion is granted, then there are even stronger grounds for denying the second (i.e., if Menger's milieu was Kantian, then his explicit and outspoken Aristotelianism would indicate an independence from his milieu).

The second sort of argument for a Kantian influence on Menger's development of marginal utility is similar to the first, but is more specific in that it attempts to give the precise sources for a Kantian influence and is more sophisticated in that it takes account of the fact that Menger was, on the surface at least, explicitly an Aristotelian. Spiegel presents the argument in these terms:

> There was . . . in the German speaking countries the strong tradition of the philosophy of Kant's idealism, paralleling and rivaling that of Hegel, an idealism that interpreted the phenomena of the external world as creations of the human mind. The intellectual atmosphere generated by Kant's philosophy would foster the development of a subjective theory of value, regardless of whether or not the economist enunciating such a theory was a full-fledged Kantian. Earlier nineteenth-century economic thought in Germany contained a number of hints pointing toward a subjective theory of value, and Menger, unaware as he was of Gossen's complete analysis, which stemmed from Bentham,

> was influenced by these. (1971, p. 531)

For this argument to work, two assertions would have to be established: (1) that the early German economists who may have influenced Menger, notably Eberhard Friedlander (1799–1869), were themselves influenced by Kantian idealism and (2) that these early German economists (or others who were influenced by Kant) were the sole, or at least the predominate, influences on Menger's development of the marginal utility theory.[21] I cannot comment on the first assertion, but the second is demonstrably false.

In his appendix on "The Measure of Value," Menger begins by saying "As early as Aristotle we find an attempt to discover a measure of the use value of goods and to represent use value as the foundation of exchange value" (1950, pp. 295–96). In this same appendix (p. 296), he also acknowledges the work of Turgot and Condillac. R.S. Howey found that: "Among the authors who wrote on economics and whom Menger remembered he had read early in life are a number—such as J.B. Say, Lauderdale and Condillac—whom other writers subsequently characterized as predecessors of the Marginal Utility School" (1960, p. 26). There are also indications that Menger was influenced by Cournot, but this is still open to debate.[22] Another primary influence is indicated by Kauder:

> In Menger's library I found one author whom Menger forgot to mention in his footnotes. He is Joseph, Ritter von Kudler (1786–1853). Not Menger but Kudler started the value discussion at the University of Vienna, and Kudler's textbook was Menger's primer in economics. (1965, p. 84)

The influence of earlier economists on the development of marginal utility theory may indicate that the theory was developed as much in response to internal problems in the developing economic theory as in response to philosophical problems (whether derived from a Kantian or non-Kantian perspective).[23]

The second issue with which I shall deal in this section of the article is whether or not the doctrine of subjective value in economics has any relation to subjectivity in ethics.[24] In *Wittgenstein's Vienna*, Janik asserts that the "Marginal Utility Theory" is "characteristically Viennese in its emphasis upon the psychological and subjective factors which underlie value" (p.

53). The clear implication is that the theory of marginal utility is related to the ethical subjectivism discussed in *Wittgenstein's Vienna* as a key to understanding the *Tractatus* could lend further credence to the picture of the Viennese milieu painted in *Wittgenstein's Vienna* and at the same time help to position the Austrian economists as an integral part of the milieu. Unfortunately, there is no very clear connection between the subjective theory of value in economics and subjectivism in ethics.

That Menger understood this is confirmed by Kauder (1965, p. 82), who reports that in handwritten notes, Menger was even more emphatic than in his published works in asserting the separation of economics and ethics. Stigler argues that Menger desired to separate ethics from social science when he notes that: "[Menger's] word for utility—*Bedeutung*—was surely intentionally neutral, but [sic] probably it was chosen for its non-ethical flavor" (1965a, p. 87). Turning to Menger himself for final confirmation, we find him claiming that "economic theory is concerned, not with practical rules for economic activity, but with the conditions under which men engage in provident activity directed to the satisfaction of their needs" (1950, p. 48). This would seem to confirm the value-neutral aspect of Menger's theory by expressing the claim that economics operates under the conditional: "If men act qua economic men, then certain economic laws follow."[25] Thus, there is no necessity for the economist to claim that men always will act qua economic men or that they always should.

It is significant that Menger is not alone among the Austrians in affirming the ethically neutral character of marginal utility theory. For instance, Böhm-Bawerk in his introductory remarks in the chapter entitled "Nature and Origin of Subjective Value" makes use of an illustrative example that does not involve ethical subjectivism (1973, pp. 10–11). In the example, "One man is sitting beside a copiously flowing spring of fine drinking water" and the other is "traveling across the desert" with "one last single cup of water left" (p. 10). The man in the desert and the man by the spring could affirm identical objectivist (naturalistic or deontological) ethical positions without this in any way impairing the effectiveness of the example in illustrating why the one's subjective valuation of a cup of water would be different from the other's.

Let us assume, however, for the sake of argument, that the Austrian economists were not successful in constructing a value-

free economics. To the extent that this assumption is plausible, I think that it would then have to be argued that if there are ethical implications, they are of an objectivist kind, not of the subjectivist sort that we would expect from the *Wittgenstein's Vienna* picture of the Austrian milieu. For example to the extent that we can gather Menger's ethical views from comments in the *Principles*, they would seem to point toward an objectivist, naturalistic ethics.[26] To the extent that the "subjective" in the subjective theory of value calls to mind an idiographic approach to man, it is misleading since the Austrian approach is to establish universal laws applicable to all men. Thus, if one were to look for an analogous approach in ethics to this one in economics, one would have to look to those ethics that claimed to derive necessary, universal ethical norms, i.e., to naturalistic or Kantian ethics.

The third and final issue that I shall consider with regard to the marginal utility theory involves the extent, if any, to which it is meaningful or useful to say that the subjective value doctrine arose out of the late Hapsburg Viennese milieu. One fact above all needs to be considered here, *viz.*, that "the subjective value theory is not the distinctive hallmark of the Viennese school. Not only Menger, but also Jevons and Walras, discovered subjective valuation" (Kauder, 1958, p. 419). Thus, the implication of Janik's statement is wrong when he says that Menger's marginal utility theory is "so characteristically Viennese in its emphasis upon the psychological and subjective factors which underlie value" (p. 53). The independent, simultaneous discovery of marginal utility by men from very different cultures indicates that the state of economic science made the time ripe for it, not that any cultural milieu made it more likely. Hayek endorses this conclusion when he says that "[Jevons', Menger's, and Walras's] scientific work seems to me to have sprung entirely from their awareness of the inadequateness of the prevailing body of theory in explaining how the market order in fact operated."[27] This is apparently consistent with what Menger told Wieser about the development of Menger's marginal utility theory:

> Wieser said that Menger told him that he had been drawn to the development of his ideas while a journalist covering market conditions for the *Wiener Zeitung*. At this time he reportedly noted that the prices of goods did not seem to be determined in the manner his study of economics would have led

> him to believe. As a consequence he came to believe that utility rather than cost controlled the price of a good. (Howey, pp. 24–25)

This account of the development of marginal utility theory is thus in accord with Toulmin's observation that "the problems of science have never been determined by the nature of the world alone, but have arisen always from the fact that, in the field concerned, our ideas about the world are at variance either with nature or with one another" (1972, p. 150). The only real difficulty for our account would arise if we accept Schumpeter's claim that economics after Ricardo became a stagnant and sterile field, remaining so up until the marginalist revolution (1952, pp. 570–71). If this claim is true, then we would be driven to conclude that the time was equally "ripe" for the marginal utility theory for a period of fifty years.[28] But in this case, our account would not be very informative, i.e., what is left of the meaning of *ripeness* in this case? Perhaps we would have to conclude either that economics had ceased to be a science in this fifty-year period or else that it really had not yet become one. These difficulties, however, may be nonexistent if Hayek is correct in disputing Schumpeter's claim on the sterility of post-Ricardian economics (1973, p. 1). Thus, we may at least tentatively conclude that the invention of marginal utility came more as a result of the internal problems, explanatory ideals, and development of economics as a discipline than as a result of any influences from the late Hapsburg Viennese milieu.[29]

The Austrian Milieu

As was stated at the outset, in this third and final section, I shall attempt to deal with what we can learn from the Austrian economists about the general Viennese milieu. In particular, I shall be concerned with the questions of whether Hapsburg society was indeed stagnating and decadent and whether there was in fact no opportunity for involvement in the world as an alternative to introverted subjectivism. This section will be briefer and more speculative than the previous two, largely because it deals more with what might have been than with what was. In *Wittgenstein's Vienna*, it is claimed that:

> Apart from the 1914 War, there is no knowing how fanatically determined Francis Joseph's successors would have been to protect their absolute power

> over defense and foreign affairs; so there is no knowing whether under other circumstances, Austria might not have evolved into a constitutional monarchy capable of responding to the political, economic and social demands of the twentieth century. (p. 274)

While it is true that there is no way of knowing with certainty, I nonetheless believe that there are clear indications that Austria was evolving in a positive direction. Seven of these indications are as follows:

1. The recognition of Francis Joseph that he had been around too long (May 1956, vol. 2, p. 815).
2. The cabinet and commission appointments of Menger, Böhm-Bawerk, and Wieser (May 1951, p. 318).
3. The general economic improvement of the empire (Murad, p. 197).
4. The successful monetary reform (Murad, p. 197).
5. Böhm-Bawerk's efforts against government economic subsidies (Sennholz, 1973, p. xi).
6. The existence of an elected assembly and the Emperor's taking a genuine interest in it (Redlich, pp. 306–9).
7. The growing power and influence of the liberal bourgeois (Murad, p. 189).

It is true that in late Hapsburg Austria, there was not a full-fledged constitutional monarchy. But this is not incompatible with continual progressive evolution in a society. It has been said that the only force holding the empire together was the Hapsburgs.[30] For them to have lost control would have meant discord and dissolution. That this is what it did mean was strongly expressed by Churchill: "There is not one of the peoples or provinces that constituted the Empire of the Hapsburgs to whom gaining their independence has not brought the tortures which ancient poets and theologians had reserved for the damned" (p. 18). On the other hand, a combination of relatively autocratic political control with increasing economic freedom and material growth would have permitted the forces of free trade and opportunity for material improvement to have had their natural and gradually increasing pacific and unifying effects.

Those periods are most creative in which there is a clash of ideas and outlooks. Along with an increase in creativity, such

atmospheres also reduce certainty and thereby increase psychological strain. It is thus not surprising that many traditionalist dogmatists as well as creative intellectuals (those under the most strain) often view their culture from the inside as being decadent. With our knowledge that a culture did collapse, it is therefore always possible to find voices prior to the collapse to affirm our hindsight view that the culture was "decadent." But cultures do not die just from endogenous factors. They also can be killed by exogenous factors such as invasion and natural catastrophe, e.g., the brief cultural renaissance just before and during Dubcek's rule did not die from internal weakness; it was killed by the Soviet invasion. Similarly, I think that it could be argued that Periclean Athens and Hapsburg Austria collapsed because of external forces. This is only to claim that the cultures were sound enough to continue a creative, progressive evolutionary development indefinitely.[31] It is not to say that over time there would not have been gradual, but fundamental institutional change.

The second issue that must be dealt with in this section is whether or not there was opportunity for involvement in the world as an alternative to introverted subjectivism. The clearest indication that there was such opportunity can perhaps come from the example of the Austrian economics. Through their theoretical and civil service activities, they had a significant impact both in Austria and the world.

If Wittgenstein's generation sought an escape from "the straitjacket of bourgeois society" (Janik and Toulmin, p. 66) there were other ways of doing it than through seeking a more authentic language. At least for Wittgenstein, there was the concrete example of his father who had "escaped" by disobeying his own father, coming to America, returning to create a fortune, and then spending it tastefully. With the counterexample of his father constantly before him, it is impossible that Wittgenstein could have seen (unless through self-delusion) a necessary connection between business activity and bourgeois vulgarity.

In conclusion, although the evidence presented in this article about the Austrian school of economics does to some extent undermine the picture of a monolithic, unified cultural atmosphere, it does not detract from the *Wittgenstein's Vienna* interpretation of the *Tractatus*. For it may still be that we can only understand Wittgenstein's philosophy by observing with which of the alternative subcultures he took seriously and chose to associate himself with. Thus, to the extent that the Austrian

school of economics is indicative of Viennese cultural diversity, it undermines the tendency to view Wittgenstein's ethical and linguistic position as determined by his milieu (a tendency that may be implicitly encouraged by *Wittgenstein's Vienna*).[32] If what has been said in these pages has any validity, then I may conclude that there was more diversity in the milieu and more alternatives in problem choice and problem response than one would gather from *Wittgenstein's Vienna*.

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[1] The affirmers include Max Black, *A Companion to Wittgenstein's Tractatus*, pp. 5, 50, 319, 363, 367, and Erik Stenius, *Wittgenstein's Tractatus*, chapter XI. The ignorers include G.E.M. Anscombe, *An Introduction to Wittgenstein's Tractatus*, and Anthony Kenny, *Wittgenstein*. The disputers include W.W. Bartley, *Wittgenstein*, p. 75.

[2] Emil Kauder, "Böhm-Bawerk, Eugen von," in Sills, ed., *International Encyclopedia of the Social Sciences*, vol. 2, p. 120. Cf. also Emil Kauder, "The Retarded Acceptance of the Marginal Utility Theory," *Quarterly Journal of Economics* (Nov. 1953): 572–73.

[3] F.A. Hayek, "The Place of Menger's *Grundsätze* in the History of Economic Thought," in Hicks and Weber, eds., *Carl Menger and the Austrian School of Economics*, pp. 4–5. Cf. also T.W. Hutchison, "Some Themes from *Investigations into Method*," in Hicks and Weber, eds., p. 15.

[4] Carl Menger, *Problems of Economics and Sociology*, pp. 168–69. Cf. also pp. 87, 194, 220–22.

[5] William M. Johnston, *The Austrian Mind*, p. 80. Johnston's critically acclaimed history contains several references to the Austrian economists, but must be read with care. Johnston claims, for instance, that "except for Schumpeter and Mises, these theorists slighted mathematics" (p. 85), implying that Ludwig von Mises was sympathetic to the use of mathematics in economics.

[6] Hayek's meaning may be clearer if the quote is read in context. In the sentence before the one quoted in the text, Hayek writes that in Wieser's last book, "Where Wieser shakes off the fetters of specialization and disciplinary methods, his unique

personality emerges in all its greatness, combining a universal interest in all fields of culture and art, worldly wisdom and experience, detachment from affairs of the day, sympathy for the fellow man, and freedom from narrow nationalism."

[7] Emil Kauder, "Intellectual and Political Roots of the Older Austrian School," p. 420. Recall that in *Wittgenstein's Vienna* (p. 174), it is noted that because of private tutoring, Wittgenstein did not learn Greek.

[8] Cf. Friedrich von Wieser, *Social Economics*, p. 5.

[9] Kant himself, on the other hand, was at pains to distinguish what he was doing from psychology. Cf. Immanuel Kant, p. 95 (A 54, B 78).

[10] That Wieser and Weber must have been familiar with each other's work is indicated by Wesley Claire Mitchell's statement that: "When the new *Grundriss der Sozialokonomie* was planned, Max Weber, who had a leading share in the direction, made it a condition of his own participation that von Wieser should provide the chief section upon economic theory. Reluctantly Wieser consented" (from Mitchell's foreword to the English translation of Wieser's *Social Economics*, p. xi). Rothbard informs us that among Weber's friends was another Austrian economist, Ludwig von Mises (1968, p. 381). Elsewhere, Rothbard notes in passing the connection between the methodology of the early Austrians and the methodology of Weber (1973, p. 332). Also relevant is Lachmann's discussion of the relationship between Menger's methodology and Weber's (1970, pp. 23–26, 55–60). In future work, it may be promising to consider Mitchell's claim that a key influence on Wieser's early decision to pursue economics was the early work of Herbert Spencer (p. ix).

[11] Cf. Joseph A. Schumpeter, in Spiegel, ed., *The Development of Economic Thought*, p. 578.

[12] A detailed account of Aristotle's theory can be found in Joseph J. Spengler, "Aristotle on Economic Imputation and Related Matters," *Southern Economic Journal* 21 (April 1955): 371–89.

[13] Ludwig von Mises, *Human Action*, pp. 35, and 40; *Epistemological Problems of Economics*; and *The Ultimate Foundation of Economic Science*. It is possible that Ludwig may have been influenced in his Kantianism by his brother Richard of the Vienna Circle. Ludwig von Mises' student, Murray Rothbard, implies a connection between the work of the two brothers when he claims that Richard "made a distinguished contribution to

probability theory which has important implications for a sound approach to the social sciences" (Rothbard, 1975, p. 9). On the other hand, there are no references to Richard von Mises in Ludwig's magnum opus *Human Action* and the only reference to Ludwig in Richard von Mises' *Logical Positivism* is, to judge from its context, cool, if not disparaging. (Cf. Richard's statement: "It is not worth while to examine the arguments of those who claim that [an application of mathematical methods to economics] is contrary to the 'essence' of economics and to the 'non-measurability' of its objectives, etc." on p. 251.) Of course, the most notable person putting forward such arguments was Ludwig von Mises. According to Rothbard:

> It was pretty clear that the two brothers, who were only two years apart in age, hated each other's guts, both personally and methodologically-ideologically. When Richard's *Positivism* came out, I asked Lu what he thought of the book. Lu drew himself up and said, in no uncertain terms, "I disagreed with that book from the very first sentence until the last." Given this situation, it is doubtful that Lu would ever refer to Richard favorably. I still believe however, that Lu's probability theory, particularly seen in the sections on "Class and Case Probability" in *Human Action*, is a brilliant application of Richard's frequentist and objective probability theory to the social sciences. It fits in beautifully with Lu's contention that probability theory can only be applied to events that are homogeneous, random, and available in a close to infinite number of cases, and that such situations do not appear in any part of human action except in those very cases that the subjectivist probability theory always bring up: e.g., lotteries. (Murray Rothbard, correspondence to the author dated February 14, 1985)

[14] Expressed in conversation on April 26, 1975, at a St. Louis seminar.

[15] For brief comments see: *The Pure Theory of Capital* (1941), p. vii.

[16] Hayek's developed methodological position can be found in *The Counter-Revolution of Science* and in the first three chapters of *Studies in Philosophy, Politics and Economics*. In

"Degrees of Explanation" in the latter volume, Hayek most clearly adopts a Popperian view. In the preface (which is dedicated to Popper), Hayek explains his debt to his "old friend." Hutchison provides an account of the development of Hayek's methodological views in: "Austrians on Philosophy and Method (since Menger)," pp. 214–19.

[17] For Popper as a student of Mises see: William H. Peterson, "Ludwig von Mises," *The Intercollegiate Review* (winter 1973–74): p. 37. For the influence of Kant on Popper see: Popper, "The Autobiography of Karl Popper," in Schilpp, ed., *The Philosophy of Karl Popper*, p. 12. It is not clear to me that by Popper's use of *essentialism*, Menger's methodology would necessarily qualify as essentialist. The Austrian economists, after all, were concerned with the essence of phenomena, not of words, and it is searching for the essence of words that Popper objects to. Thus I am not sure that Popper's antiessentialism condemns Aristotelian essentialism. The relationship between Menger's methodological essentialism and Popper's antiessentialism has been briefly discussed by Hutchison (T.W. Hutchison, "Some Themes from *Investigations into Method*," in Hicks and Weber, eds., *Carl Menger and the Austrian School of Economics*, p. 18).

[18] Cf., Böhm-Bawerk, "The Austrian Economists," in Gherity, ed., *Economic Thought*, p. 285; and Hayek in Spiegel, ed., *The Development of Economic Thought*, p. 532.

[19] Although it was Wieser who first introduced the phrase *marginal utility*.

[20] Böhm-Bawerk makes the Copernicus comparison in "The Austrian Economists," reprinted in the Gherity volume. Recall that Kant in the *Critique* had claimed that he was offering a change of perspective similar to that suggested by Copernicus [p. 22 (B xvii)].

[21] Cf. Emil Kauder, *A History of Marginal Utility Theory*, p. 83: "Menger was especially interested in Eberhard Friedlander's interpretation of value."

[22] Cf. Kauder, *A History of Marginal Utility Theory*, pp. 82–83, 90–91; and Howey, *The Rise of the Marginal Utility School, 1870–1889*, pp. 26–27.

[23] Cf. Stigler, "The Influence of Events and Policies on Economic Theory," pp. 16–30: "The dominant influence upon the working range of economic theorists is the set of internal values and pressures of the discipline. The subjects for study are posed by the unfolding course of scientific developments."

[24] “The doctrine of subjective value” and “the marginal utility theory” are two names for the same thing.

[25] Cf. Richard M. Ebeling, “Austrian Economics on the Rise,” *Libertarian Forum* (Oct. 1974): p. 4.

[26] See, e.g., Menger, *Principles of Economics*, p. 53; and Ludwig von Mises, *Epistemological Problems of Economics*, p. 152.

[27] Hayek, “The Place of Menger’s *Grundsätze* in the History of Economic Thought,” in Hicks and Weber, eds., *Carl Menger and the Austrian School of Economics*, p. 3. Hayek goes on to say (p. 4): “Vienna could not have seemed at the time a likely place from which a major contribution to economic theory could be expected.”

[28] Ricardo published *Principles of Political Economy and Taxation* in 1817. (Cf. Spiegel, *The Development of Economic Thought*, p. 158.)

[29] Cf. Toulmin, *Human Understanding*, Vol. 1, p. 154.

[30] E.g., *Wittgenstein’s Vienna*, p. 38.

[31] On the other hand, we must consider Mises’ report “that Menger, Böhm-Bawerk, and Wieser looked with the utmost pessimism upon the political future of the Austrian Empire” (*The Historical Setting of the Austrian School of Economics*, p. 37).

[32] Although it is of course explicitly discouraged. (Cf. *Wittgenstein’s Vienna*, p. 32.)

Hayek's "The Trend of Economic Thinking"

Bruce J. Caldwell

On March 1, 1933, Friedrich A. von Hayek delivered an inaugural lecture at the London School of Economics. The lecture was published two months later in *Economica* under the title "The Trend of Economic Thinking." In the paper, Hayek despairs over the direction of current "public opinion," which favored increasing state intervention in the economy. He also notes that the concept of planning, then in vogue both in the popular press and among intellectuals in Britain, had its origins in the writings of continental socialists, in particular the German historical school. Though this article is the first published piece in which Hayek discusses such topics as socialism and planning, it has passed virtually unnoticed by scholars of the Socialist Calculation Debate. This would be reason enough for mentioning it. But a closer examination of the article, given what we know of Hayek's subsequent work, reveals it to be an extraordinary document. Hayek touches upon a number of themes in "The Trend of Economic Thinking" that were to engage him for the remainder of his career.

Perhaps most noteworthy is his characterization of the market system. He emphasizes that it is "a highly complicated organism" which takes intense, systematic study to understand (p. 123). He stresses that its institutions emerge "spontaneously," that they are the result of human action but not of conscious human planning (pp. 123, 129, 130). He also notes that attempts to intervene in the market system often bring about unintended results and that usually only those who are trained in economics recognize this subtle point (pp. 122, 123, 128). These points, as well as Hayek's fundamental insight that markets coordinate behavior, can be deciphered in the lengthy passage:

> From the time of Hume and Adam Smith, the effect of every attempt to understand economic phenomena—that is to say, of every theoretical analysis—has been to show that, in large part, the co-ordination of individual efforts has been brought

> about, and in many cases could only have been brought about, by means which nobody wanted or understood, and which in isolation might be regarded as some of the most objectionable features of the system. . . . [Early attempts at analysis] showed that an immensely complicated mechanism existed, worked and solved problems, frequently by means which proved to be the only possible means by which the result could be accomplished, but which could not possibly be the result of deliberate regulation because nobody understood them. Even now, when we begin to understand their working, we discover again and again that necessary functions are discharged by spontaneous institutions. (p. 129)

How does one go about modeling such a system? Hayek advocates the use of an individualistic and "compositive" method, whereby the economist, "by combining elementary conclusions and following up their implications . . . gradually constructs, from the familiar elements, a mental model which aims at reproducing the working of the economic system as a whole" (p. 128). The same methodology is advocated in his later work, "Scientism and the Study of Society." Other themes from his "Scientism" essay are also present. For example, Hayek labels as anthropomorphic the notion that economic institutions must be planned to be functional (p. 130). He also argues that the popular belief in the "inevitability" of the extension of state control is just another "legacy of the belief in historical laws which dominated the thinking of the last two generations" (p. 134).

"The Trend of Economic Thinking" is the first place where Hayek mentions planning, which he explicitly links with socialism. His words are biting.

> I have discussed planning here rather than its older brother socialism, not because I think there is any difference between the two (except for the greater consistency of the latter), but because most of the planners do not yet realize that they are socialists and that, therefore, what the economist has to say with regard to socialism applies also to them. In this sense, there are, of course, very few people left today who are not socialists. (p. 135)

This passage might well be considered the true opening salvo, at least as far as Hayek's contribution is concerned, in the Socialist Calculation Debate. And what a salvo it is! Not only is planning less consistent than socialism, planners do not even recognize the true nature of their ideas.

Hayek discusses the contributions of the classical liberal economists at a number of points. He notes early on that they had recently been interpreted "under the influence of socialistic ideas" as having been insensitive to social suffering: "But, in fact, nothing could be further from the truth. No serious attempt has ever been made to show that the great liberal economists were any less concerned with the welfare of the poorer classes of society than were their successors" (p. 122).

It was but a small step from here to Hayek's later project, undertaken in *Capitalism and the Historians*, in which the premise of social suffering under the transition to industrial capitalism was questioned. Having defended the classicals, Hayek later notes that many were guilty of neglecting the "positive part of their task." They were excellent at pointing out the limits of government interference, but they should also have indicated the proper scope for government action. Hayek's conclusion that "to remedy this deficiency must be one of the main tasks of the future" (p. 134) is prophetic, for much of his later work was dedicated to explicating the role of the government in a liberal democracy.

Those who have read Hayek's piece, "Why I Am Not a Conservative," will find the following sentence from the conclusion of this article very familiar.

> The peculiar historical development which I have sketched has brought it about that the economist frequently finds himself in disagreement in regard to means with those whom he is in agreement with regard to ends; and in agreement in regard to means with those whose views regarding ends are entirely antipathetic to him—men who have never felt the urge to reconstruct the world and who frequently support the forces of stability only for reasons of selfishness. (pp. 136–37)

It may finally be mentioned that Hayek's frequent invocation of the errors of "public opinion" indicates that he considers the direction of popular belief to be a serious matter. He was to respond to this with the publication of *The Road to Serfdom*, his

first work intended for mass consumption. Begun as a pamphlet published in 1938, the book ultimately was to reach a much wider readership through a condensation in *Readers Digest*.

What are we to make of this article? It is tempting, of course, to read it as a blueprint for much of Hayek's subsequent work. One can picture the thirty-four-year-old Tooke Professor, in a flash of insight, sitting down and penning this outline of a program he would follow for the next fifty years.

Despite its romantic appeal, I do not think that such an interpretation can be supported. After all, Hayek was to continue to devote his attention to economic theory for another ten years or so. Nor does he anywhere mention the article as significant. Finally, his description of the coordinating role of markets made no reference to the concept of dispersed and subjectively held knowledge. It was not until three years later, when in the midst of the Calculation Debate Hayek wrote "Economics and Knowledge," that *that* crucial idea began to take form.

"The Trend of Economic Thinking" is not a blueprint. Rather, it is a manifesto and a starting point. It is a manifesto because it is rich in ideas that are not yet systematically articulated. And it is a starting point because, as Hayek was drawn into the Calculation Debate, he was forced to pay increasing attention to the problems he first mentioned in this article. Rather than a blueprint, "The Trend of Economic Thinking" is probably best viewed as a suitable point of departure for explicating the trend of Hayek's thinking.

Timberlake on the Austrian Theory of Money: A Comment

Murray N. Rothbard

In his interesting and commendable article on the Austrian theory of the value of money, Professor Timberlake grapples seriously with Ludwig von Mises' outstanding work and acknowledges Mises' many penetrating insights.[1] However, Timberlake unfortunately dismisses many of the most important aspects of the theory and, hence, can conclude that Austrian differences with monetarism are largely linguistic or mere practical cautions rather than deep theoretical disagreements. As a result, he can call for strengthening what he clearly considers to be a natural alliance between the two schools of thought.

The Regression Theorem

The *pons asinorum* for every critic of Mises' theory has always been his "regression theorem," of which his critics have failed to grasp the nature and significance. Professor Timberlake is unfortunately no exception, although his dismissal of the problem of the "Austrian circle" solved by Mises is far superior to the standard approach of Patinkin and other neoclassical critics. Patinkin and the neoclassicists, trapped in their own circularity of mutually determining mathematical functions, brusquely charge Mises with making the schoolboy error of confusing demand schedules with the quantity demanded. Timberlake takes a higher ground provided by the important article by William H. Hutt: that money has its own "yield" in psychic terms from being held and therefore being available to make purchases. Timberlake uses this concept to conclude that there is no real difference between money and other goods, since each has its own direct utility and, therefore, there is no unique circularity to the utility of money that theorists need to solve.

Timberlake charges Mises with ambiguity and contradiction, citing passages where Mises clearly recognizes that money is held in cash balances precisely in order to have it ready for eventual use. In fact, Mises goes further, making it clear that money is

held because of the basic uncertainty of the future that also gives rise to entrepreneurship.

What Timberlake fails to realize is that there is no contradiction here: money is indeed useful while it is being held, held to be available for eventual purchases of goods. But money is still different from all other valuable goods. Money has no utility apart from its usefulness in serving as a general medium of exchange, of exchange for other goods and services. Mises knew full well that such exchanges are not instantaneous; money indeed bridges action between the present and the uncertain future. But it is equally true that money has no utility apart from present *or future* purchases of other goods, and that without such utility, no one would hold on to cash balances.

Let me put it another way. All goods except money have no optimal supply. Production of goods and services is a way of reducing the nature-given scarcity of all goods. As consumer goods increase, that scarcity is diminished, and living standards rise. *Ceteris paribus*, an increase in the supply of a consumer good confers a social benefit because scarcity is being alleviated. Neither can the supply of capital goods or productive factors ever be optimal. Again, *ceteris paribus*, the greater the supply of a productive factor or resource, the better, since this means that the supply of consumer goods will rise in the future. Consumer goods are directly useful, and productive factors and resources are indirectly useful in increasing the production of consumer goods. In short, neither the supply of consumer goods nor of productive factors can ever be optimal short of the Garden of Eden of the superabundance of all goods.

But money, or the money-good, is totally different. It is the unique nature of money that its usefulness in facilitating production as a general medium of exchange, while enormous and crucial, *stops* as soon as it is in sufficient supply to be adopted as a general medium by the market. In short, beyond the minimal quantity needed to establish the money-commodity as money in the first place, "the marginal utility to society," if I may use that phrase, of any increased amount of money is zero. Above the minimum, therefore, *any* supply of money is optimal. There is never any social benefit to increasing the quantity of money, for the increase only dilutes the "objective exchange value," or purchasing power, of the money unit. Monetary calculations and contracts are distorted, and the early recipients of the new money, as well as debtors, gain income and wealth at the expense of later recipients and of creditors. In short,

increasing the quantity of the money is only a device to benefit some groups in society at the expense of others.[2]

But if money has no use apart from present or future purchase of goods and, therefore, any quantity of money is optimal, we are left with the problem of the Austrian circle. Bread, milk, and TV sets have utilities of their own and consumers evaluate their uses; their utility is therefore logically evaluated prior to considering their price. Their utility can explain their value. But what of "dollars"? How can the marginal utility of dollars explain their value or purchasing power, when that utility could not exist (i.e., no one would purchase or hold dollars) unless those dollars had a *previous* purchasing power, a previous value, on the market?[3] But how then can utility explain value in the case of money? In contrast to all other goods and services, money would have no utility to hold in cash balance unless it had already enjoyed a previous existence and a purchasing power as money. The problem of the Austrian circle is a very powerful one, and it is precisely because of this power that other Austrian theorists before Mises despaired of solving it.

Mises' pathbreaking regression theorem solved the problem by engaging in what would later be called a "period analysis" when performed by D.H. Robertson. The Austrian circle can be solved, first, by realizing that there is a temporal dimension to the circle. The value, or purchasing power, of money in day n is determined by the demand for money to hold in day n, which in turn is determined by the marginal utility of money in day n.[4] But the circle appears when we realize that the demand for money in day n is completely dependent on the existence of the purchasing power of money in day n-1. But that purchasing power is in turn determined by the demand for money in day n-1, which in turn could not exist unless money had a purchasing power in day n-2. And so on we go, backward in time. But is not this regression infinite and, therefore, no solution at all? No, because it stops logically the day before the money-commodity became a medium of exchange. In short, it stops on the last day the money-commodity continued to be a simple nonmoney-commodity demanded for its direct use in barter. Or, in short, the demand for money on day 1 (the first day of its use as a medium of exchange) is determined by the existence of a purchasing power of the commodity in its last day in barter, day 0. Hence, the current value of money is fully explained, its historical dimension regressing logically until the money-commodity emerged out of barter, and, therefore, its last

determinants are its supply and demand under barter.

The Austrian circle has now been surmounted, and the value of money, as in other goods, is reduced back ultimately to its utility and the stock available. Furthermore, the important conclusion of the regression analysis is that no money, and no money-unit, can ever emerge except through this process of beginning as a useful nonmonetary commodity in barter. Money *must* begin as a useful commodity in a market economy of barter. Otherwise, it could not have had a preexisting purchasing power so that people can evaluate and hold money.[5] Unfortunately, once a commodity is established as money, paper or bank deposits can begin as representations of, and redeemable in, genuine commodity money, but eventually the government can cut these claims loose from their original commodity moorings and the tokens can then continue indefinitely, although disastrously, as money.

The Index Number Problem

One crucial difference between monetarists and Austrians is that the former believe that the supposed neutrality of money means that a price level exists and can be analyzed and measured, apart from relative prices—in short, that micro can be strictly segregated from macro. In comparing and contrasting the views of Ludwig von Mises and Irving Fisher (the father of monetarism and still its clearest and most profound thinker), Professor Timberlake states that Fisher, like Mises, acknowledged the nonneutrality of money, but only *in the short run*. The crucial point is that Fisher believed that in long-run equilibria, money is neutral, and, like all good neoclassicists, Fisher, as a theorist, was interested only in the long run. It is this alleged long-run neutrality that permits the monetarists, from Irving Fisher to Milton Friedman with his egregious "helicopter effect," to act as if money is neutral to relative prices and to the structure of production.

Mises' view, in contrast, is very different. He demonstrates that change in the money supply has important nonneutral effects on the "real" economy, in both short run and long. Money enters the system, not by helicopters showering an equiproportional increase on one and all, but at specific nodal points in the economy. An increase in paper money or bank credit, for example, will first increase the cash balances of government or bank, and then ripple out, in step-by-step micro

fashion, from one set of cash balances to another, from government to defense contractor or from bank to debtor. In doing so, the distribution of money assets and incomes, as well as relative prices, will change permanently, in long run as well as short. In addition, some of the "short-run" effects will have dire economic consequences even if temporary, particularly the intervention by bank credit expansion into market signals of saving and interest rates, leading inevitably to a Mises-Hayek business cycle. As a result, there can be no separation between micro and macro. None of this is understood by the monetarists.

Hence, there is no price level apart from relative prices; and a change in price level will inevitably be attached to changes in relative prices.[6] And if there is no price level, it *a fortiori* cannot be measured. Timberlake points out that Mises indeed talks of the "objective exchange value of money," but he charges that Mises' refusal to believe that it cannot be measured is tied in with his alleged error of conflating value with subjective utility. But Mises is correct here as well, since it makes no sense to try to measure an aggregate or average price level that has different objective and subjective meanings to every individual.

Take, for example, Fisher's attempt to arrive at a scientific index of the price level. Contrary to Timberlake, the problems here are not simply practical, but deeply fundamental and substantive. When "scientific" statisticians arrive at an index of price level inflation, for example, how do they combine the thousands of individual price indices into one aggregate price level figure? The alleged solution of assigning fixed weights in accordance with aggregate physical purchases in a given base year cannot work. Of what relevance is the fixed physical purchase weights of the legendary blue-collar Dayton, Ohio housewife with 2.2 children to any of us who are not in that category? I will wager that the Dayton housewife purchases very few books per year. My own consumption weights, heavily inclined to books, are very different, so that my own inflation index is very different from hers. And by what right, by what "scientific" warrant, does the statistician presume to amalgamate 200 million individual inflation indices into one?

Professor Timberlake tries to hew a middle path between Irving Fisher's "oversold" price index claims and Mises' attacks, but he is evidently largely on Fisher's side, with the Austrian contribution limited to stress on practical difficulties and cautionary warnings about excesses. Yet arguments by Mises that Timberlake, with uncharacteristic brusqueness, dismisses as

"whimsical," cut profoundly to the heart of the matter.[7] Thus, Timberlake points to Mises' charge that "all index number systems" are based on "the quite nebulous and illegitimate fiction of an eternal human with invariable valuations." But far from being whimsical, it is all too correct that the amalgamation of individual price indices into one and their continuance over many years involves precisely this indefensible fiction even if only implicitly.

But, Timberlake wonders, if Mises admits that an entity such as the "objective exchange value" of money exists, how can it not be quantifiable and measurable? Contrary to Timberlake, this position is not "paradoxical."[8] He does not realize that there are two traditions in the history of thought on the purchasing power, or objective exchange value, of money. One is that it is in the form of a "level," expressed at least in theory in a single index number; the other, adopted even by Ricardo and later by Mises, is that it is not a single level but an array of prices in all their specificity.[9] The purchasing power of the dollar today is an array of all the myriad alternative goods and services that can be purchased for a dollar. If the price of a hat is $10, of a loaf of bread $1, of a TV set $90, and so on through all the array of available goods and services, then the "purchasing power of the dollar" is: one-tenth of a hat, *or* one loaf of bread, *or* one-ninetieth of a TV set, no more and no less. If one of these prices rises by 10 percent in one year, another rises by 5 percent, a third falls by 4 percent, and so on, there is no scientific way whatever in which all of these disparate changes may be combined to form one aggregate or average index number of change.[10]

Methodology and Mathematics

Throughout his article, Professor Timberlake uses the term *methodological* as a synonym for *trivial* and the reverse of *important* and *substantive*. But the correct usage depends on one's view of methodology in economics and the disciplines of human action. To Mises, and to the present author, methodology is of crucial substantive importance, because some methodologies can be shown to be correct and others incorrect. In particular, Mises' economics is consciously grounded in what he has termed praxeology, which he deems to be the only correct methodology for economic theory. Praxeology grounds economic theory on a handful of self-evident and apodictically true axioms and then

develops the logical (and, hence, absolutely true) implications from those axioms. Economic theory is the set of such true implications, which the applied economist, or economic historian of the contemporary or past scene, uses to try to explain the complexity of historical events. Since, contrary to the positivist method, economic theory need not and cannot be "tested" by empirical facts, the integrity and truth value of economics rests upon keeping its axioms and premises true and unsullied. Deliberately introducing false assumptions and premises into the theory, whether in the name of "simplification" or for any other reason, is fatal to both the veracity and the usefulness of economic theory. Yet, Professor Timberlake, in the positivist mode, asserts that it is proper and legitimate to make "the assumption of monetary neutrality and the specification of cardinal utilities," even though these assumptions are admittedly untrue, because they are "simplifications that clarify the analysis by showing it unadorned."[11] But, by doing so, he unwittingly succeeds only in introducing grave falsehood into economic theory, a falsehood that can only yield false and misleading conclusions. Thus, contrary to Professor Timberlake, methodology *is* substance.

Let us examine, for example, Professor Timberlake's exposition of marginal utility, where he asserts that utility may properly be treated *as if* it were cardinal. We take note of the fact that the doctrine of cardinal utility has long been the major "scientific" argument for the progressive income tax. For this reason alone, it ought to be rejected out of hand. However, let us confine ourselves to Timberlake's seemingly noncontroversial exposition. Thus, in his appendix on "The Equilibrium Value for the Marginal Utility of Money," Timberlake begins with the unexceptionable statement that "money exchanges for these [all other] goods and services at market prices until a typical individual maximizes his utility for money and goods relative to their prices."[12] But in his next sentence, he adds, "That is," in equilibrium "the marginal utility of money relative to the price of money equals the marginal utility of goods relative to the price of goods," a proposition that he proceeds to embody in the equation:

$$MU_m / P_m = MU_r / P_r$$

where *r* includes all goods other than money. As Timberlake recognizes, the *r* boldly amalgamates the prices and marginal utilities of all goods into *one* mythical good via the price level

construction, which we have seen to be illegitimate.

But this is scarcely the only problem with Timberlake's formulation. The major problem is that the sentence beginning "That is" does not follow at all; there is a vast and illegitimate leap from the first sentence to the second. For the fact that in equilibrium every individual has reached his maximum utility point for each good or for money in no way implies Timberlake's standard neoclassical conclusion about equal ratios of marginal utility to price.

The crucial point is that utility cannot be used in any ratio or fraction. Utility is not cardinal but strictly ordinal, a nonmeasurable ranking among goods and services on a person's ordinal value scale. The ranking is of the order "first, second, third, fourth, etc." and therefore cannot be added to, multiplied, or equalized, a point that would be made stronger if the ranking were in letters, rather than in misleading numbers, and thereby seen to be strictly lexicographic (*A*, *B*, *C*, etc.), which no one could claim to be subject to measurement. Standard micro texts state that utility is ordinal rather than cardinal but then quickly proceed to talking about "utils," units of utility which can be added, integrated, differentiated, etc. Contrary to those texts, there are no utils, no one has ever seen a util or will ever see one. Since there are no utils, it makes no sense to talk of a ratio between utils and prices. In fact, ratios must be in the same unit, and there is even no way to speak meaningfully about ratios of apples to oranges or of utils, even if they did exist, to prices.[13]

Epilogue: The "Alliance"

Professor Timberlake concludes his stimulating article by urging us to abjure our "intellectual rent factors or vested interests" and instead cultivate the natural alliance between monetarists and Austrians.[14] But one may question whether or not such a natural alliance exists, either on a theoretical or public policy level. In the field of economic theory, there is no common ground at all, except for the simple proposition that "money matters," i.e., that the supply of money is an important determinant of prices. There is no other commonality of principle, from methodology to analysis. Politically, there tends to be a common devotion to free markets, but, paradoxically enough, in virtually every area *except* money, the subject, after all, of Professor Timberlake's article. In the field of monetary policy, monetarists are devoted to fiat money, central banking,

and somewhere between a 3 to 5 percent money rule, i.e., a fixed monetary inflation of 3 to 5 percent per year in order to keep the long-run (though nonexistent) price level constant. Austrians, on the other hand, are devoted to a pure gold standard, 100 percent reserve banking, and the abolition of the central bank—in short, the total separation of money from the state. Since they believe that any supply of money is optimal, Austrians oppose any increase of the money stock beyond the supply of gold, and they welcome the falling prices that will be brought about by the development of unhampered capitalism. Money is precisely the area where Austrians and monetarists are furthest apart.

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[1] Richard H. Timberlake, Jr., "A Critique of Monetarist and Austrian Doctrines on the Utility and Value of Money," *Review of Austrian Economics*, I (1987), 81–96. Mises' theory is, of course, set forth in his *The Theory of Money and Credit* [1912] (4th ed., Indianapolis: Liberty Classics, 1981).

[2] There is one exception: when the increased money consists of newly mined gold or other money-commodity. For while an increase of gold confers no *monetary* benefits on society, it *does* increase the amount of gold used in jewelry, dentistry, and other consumer and industrial uses. In short, new gold has the same effect as more of any other good when considered in its consumption or capital, i.e. its *non*monetary, uses. But of course, once money becomes paper or bank deposit, even that saving grace of increasing money ceases to exist.

[3] Professor Timberlake repeatedly insists that utility is subjective and that value is objective—price or purchasing power. He charges Mises with error in speaking of value as subjective. Timberlake, "Critique," p. 87. Actually, Timberlake himself has here fallen into the trap of confusing the semantic with the substantive. While one aspect of value is indeed objective (what Mises called "objective exchange value"), utility leads consumers to make subjective *valuations* of goods and services. "Subjective value" is an important Austrian concept of value as *valuation* by consumers.

[4] In each day, of course, the purchasing power of money is determined by two factors: its demand and supply (or stock). I am omitting the stock of money in the text for purposes of exposition. For a fuller discussion of the regression theorem, see Murray N. Rothbard, *Man, Economy, and State: A Treatise on Economic Principles* [1962] (Los Angeles: Nash Publishing, 1970), I, 231–37.

[5] Professor Timberlake scoffs at this proposition and claims that "fiat paper money" could be "dumped into a primitive barter economy and forced into existence by the impress of legal tender." Timberlake, "Critique," p. 87. But this has never happened in history, while there are many cases (e.g., the mighty Mongolian Empire) where governments, unhampered by the Bill of Rights, have done their best to force a new money upon a people and yet have failed dismally. All currencies in history began as useful commodities on the market of barter, and it was Menger's historical explanation of this universal fact that inspired Mises to demonstrate its ineluctable logic as well.

[6] Timberlake believes that Mises' rejection of price level indexes would only carry "practical weight" if it is discovered empirically that relative prices change to a significantly greater degree during inflationary periods than in periods of stable prices. But Mises' point is fundamental and philosophic rather than statistical-empirical. Price level indices are illegitimate in *all* periods if changes in price levels always carry with them systematically *any* changes in relative prices whatever. Timberlake, "Critique," p. 89.

[7] Timberlake, "Critique," p. 90.

[8] Timberlake, "Critique," p. 88.

[9] Thus Viner writes of the major classical economists that "when they speak of the value of money or of the level of prices without explicit qualification, they mean the array of prices, of both commodities and services, in all its particularity and without conscious implication of any kind of statistical average." Jacob Viner, *Studies in the Theory of International Trade* (New York: Harper & Bros., 1937), p. 314. Much of the excellent work by C.Y. Wu hinges on this crucial distinction. C.Y. Wu, *An Outline of International Price Theories* (London: George Routledge & Sons, 1939).

[10] For more on the index number fallacy, see Rothbard, *Man, Economy, and State*, II, 737–44. Also see R.S. Padan, "Review of C.M. Walsh's *Measurement of General Exchange Value*," *Journal of Political Economy* (Sept. 1901), p. 609.

[11] Timberlake, "Critique," p. 92.

[12] Timberlake, "Critique," p. 93.

[13] After engaging in mathematical manipulations of his first, fallacious equation, Timberlake ends with the equation:

$$MU_m = MU_r/P_r^2$$

In trying to elucidate the economic meaning of the absurd idea

that the marginal utility of money is equal to the marginal utility of goods "divided by" (how?) the price level *squared*, Professor Timberlake says, "To visualize this explanation, let the original equilibrium . . . occur when P_r and P_m are both 1." But what in the world can it *mean* to have the price level of goods "equal to 1"? p. 93.

[14] Timberlake, "Critique," p. 92.

Reply to Comment by Murray N. Rothbard

Richard H. Timberlake, Jr.

Three main issues appear in Professor Rothbard's "Comment," all of which are related to a principal theme.[1] The issues are: (1) the Austrian circle and regression theorem, (2) the difference between money and other economic wealth, and (3) the measurability of economic activities, particularly monetary phenomena. Rothbard begins with the Austrian circle and regression theorem; he then brings in the difference between money and other economic things. His gravest oversight is on this latter point, so I begin this reply with an analysis of the difference between money and other things.

Rothbard observes that I use my reference to W.H. Hutt's classic article, "The Yield from Money Held," to conclude that "there is no real difference between money and other goods, since each has its own direct utility, and therefore there is no unique circularity to the utility of money that theorists need to solve." Rothbard then explains the difference between money and other economic goods. All money is nominal, while all goods are real. Economic resources properly mixed with economic organization can result in greater production of goods and services, and no amount of such production can ever be "optimal"—that is, too much.

"But money," states Rothbard, "is totally different. It is the unique nature of money that its usefulness . . . *stops* as soon as it is in sufficient supply to be adopted as a general medium by the market. . . . There is never any social benefit to increasing the quantity of [nominal] money, for the increase only dilutes the . . . purchasing power of the money unit."

This argument has been expounded often in the past by many well-known economists (John Stuart Mill, for example, in his *Principles*, Book III, chapters 7 and 8). What, indeed, could be more obvious than the fact that money units are all nominal, and that doubling them changes nothing real?

Not only does the word *real* enter here, it must enter or the thought cannot be finished. If money exists and is used as an economic item for making exchanges, it is real as well as

nominal. Unlike other real goods, however, the reality of money is conceptual. It can only be appreciated by an intellectual calculation of what the money unit can buy. Everyone makes this calculation intuitively in deciding on how much money he will hold for the interval until his money stock is replenished. However, hardly anyone, most economists included, is aware enough of the existence of real money to bring it into a rational calculable analysis. This oversight manifests itself in remarks such as the ones by Jevons and Wicksell that I cited in my original article. Rothbard's discussion of the difference between nominal money and real goods is in this same vein. It is correct, but it does not even come to grips with the most important feature of money—its real value.

The real quantity, or stock, of money is the total purchasing power, or "objective exchange value," of the nominal quantity. This real quantity is estimable by reference to a price index (another Rothbardian no-no, which I shall discuss shortly). If the nominal quantity of money is fixed and real production increases by 10 percent so that prices generally fall by, say, 10 percent, then the real quantity of money is 10 percent greater than it was. It increases because all of the great complex of economic resources increases the real wealth and income of society by 10 percent. Included in this bounty are the fruits of the money industry. Indeed, the money-producing industry in a fully free market system would usually contribute to the real increase in total product by refining and economizing the payments system. If it did, the resources in this industry would have realized their appropriate marginal returns. In any event, holders of money wealth would enjoy a return on their capital—real money in this case—measured by the rate of decrease in the price level. An appropriate label for this return would be "implicit seigniorage." A money holder would get it by owning and holding money just as he would get a return from a stock certificate by owning and holding it.

This return, however, is not the end of the story. Money (as Hutt emphasized and as both Mises and Fisher sensed but did not fully explain) yields an implicit return to the holder regardless of who gets the seigniorage. Even if the monetary system is buffeted by inflation and hyperinflation, it has much more utility for making exchanges than bartering devices that would have to be used in its absence. That is, even if the money unit constantly suffers from a depreciation of its real value by excessive issues of its nominal quantity, it is abandoned only reluctantly—only

when its cost in terms of price level depreciation overcomes its implicit yield rate as an economizing wealth item.

My conclusion here was not, as Rothbard asserts, that "there is no real difference between [nominal] money and other goods." It did not concern nominal money at all. Rather, the conclusion is that real money can be, should be, and must be treated analytically like all other economic wealth. To cite again the classic elegance of W.H. Hutt: "[*Real*] money assets are subject to the same laws of value as other scarce things and are equally productive in all intelligible senses." If each dollar has real value, people who own the dollars ascribe to them utility. If all the dollars have some total utility, successive dollars owned have declining marginal utility and enter into the individual's calculation of whether he will hold dollars or get rid of them by purchasing other kinds of wealth. (See again the corrected version of my appendix to the original article at the end of this "Reply.")

This line of reasoning leads to the conclusion that a regression theorem is no more necessary for real money than it is for real automobiles. Do I, for example, get utility from my real 1965 Chrysler 300 because Carl Benz invented a real automobile in 1886? No more so do I get utility from my real dollar because my grandfather in 1886 used a gold Eagle to buy my grandmother an engagement ring. Carl Menger correctly inferred the evolution of a commodity money from commodity barter. That development, however, in no way affects the utility of the paper money in use today.[2] Modern day paper money is accepted by the public because of the coercive power of the state to enforce legal tender.[3] However, we as individuals determine its value—the *terms* on which we accept it—from an estimation of its transactional utility to us in conjunction with the number of units of it in our possession. The utility schedule of the real units is what is important to us. Once the reality of nominal money is recognized, the "Austrian circle" (which argues that the value and utility of money are isolated in an indeterminate tautology) disappears. If an Austrian circle is required for money it is also necessary for every other real good.

Behind these arguments on the real value of money and its utility lie the concepts of the price level and the price index as contrivances made to measure the price level. Rothbard objects to both. Such contentiousness, however, cannot be limited to prices, but must be extended to the averages for all collections of data. If one accepts Rothbard's view, grade point averages for a

college student do not mean anything. How can one add a grade in, say, economics to a grade in calculus and to another grade in history, divide by three and come up with anything meaningful? Economics, calculus, and history are not summable. Furthermore, the various university administrators who peruse these grades have different perceptions about what they signify. So what can they mean? To a "pure" Austrian economist, nothing.

The same criticisms of statistical measures could be made about baseball batting averages, stock market values, and weather reports. In fact, in almost any walk of life, statistical measures of central tendency bring meaningful sense into random data. Market prices are not an exception. A burgeoning money supply makes most money prices rise. Austrian economists recognize the general rise in money prices as well as anyone (as I noted in volume 1 of the *Review of Austrian Economics*, pp. 89–90). To insist that the somewhat uneven rise of prices has different significance to different observers, all of whom may have somewhat different innate utility patterns, is a trivial argument. It is reminiscent of young boys who are so concerned about the rules of the game that they never play the game.

Worse yet, the categorical refusal to admit a price index as a measuring device is to say that the value of the money unit is indeterminate and cannot be measured.[4] It could be anything depending on the utility that each individual has for it. The same argument could be made for the "value" of a jar of peanut butter. Suppose the market price for such an item is $1.29. To someone who likes peanut butter, this price is cheap. To someone else, a price of $1.29 may be barely acceptable. Therefore, this price and all other prices are meaningless if they must be married to the "subjective significance" attached to them by individual preferences. Any constraint or principle that applies to a real money unit must perforce apply to any other real wealth item.

The most valuable return from a reasonably well chosen price index construction is its derivative use in measuring the value of money. The jar of peanut butter has an explicit money value. So do thousands of other economic goods and services. To say that one cannot get from these prices a determinant measure of the value of the money unit is vain perfectionism. It places Austrian economic analysis into a straitjacket from which it is unable to respond to the many pernicious violations of its principles that occur ubiquitously in everyday affairs.

All averages can be used devilishly, but this trait is no case

against them. Every manmade device and most of nature's can be judged on the same grounds. Obviously, an average sacrifices particulars in order to emphasize a central tendency. It has both costs and benefits, and it must be used in a way that maximizes its benefits while recognizing its costs.

Near the end of his "Comment," Professor Rothbard delivers a revealing passage that reflects what seems to be his overall theme—a holier-than-thou norm for Austrian economic theory. Economic theory, he writes, derives from the pure logic of "true" behavioral axioms. It "is the set of such true implications [from these axioms]. . . . Since, contrary to the positivist method, economic theory need not and cannot be 'tested' by empirical facts [!], the integrity and truth value of economics rests upon keeping its axioms and premises true and unsullied."

Such a position invites scorn and ridicule from critics. (Who said those opinions are "axioms"?) It is also defeatist. It relegates Austrian economics to an ineffectual and largely ignored debating exercise and thereby renders it practically useless in a world going collectivist. Surely, a set of principles and doctrines as powerful as those developed by the Austrian school can afford to come down and slug it out with all comers on any grounds they wish. In doing so, Austrians should accept any allies available who have the same fundamental concern for a system of rules in which individual rights and actions are dominant and inviolate. All the monetarists I know hold such principles as firmly as Austrians.

Appendix:

The Path to Static Equilibrium for Holdings of Money and Goods

This analysis assumes an economy that uses a nominal money of some simple form, say, paper currency. In the beginning, its real value is constant. That is, the price level as estimated by a price index is not changing, and everyone expects that it will remain as is.

This economy also produces and consumes goods and services, all of which have declining marginal utilities to the households and business firms (H and BF) that own them. Indeed, if all marginal utilities did not decline at some point, everyone would specialize his wealth holdings. He would own

the first unit of whatever gave him the most utility; but if his marginal utilities for all goods and services were all increasing, he would acquire more of this "premium" good until he exhausted his income. Different people, however, might well have differing views on the item that had premium utility. So all would not specialize their purchases on the same thing. (This aside is to show by way of casual observation that, in a society of human beings whose patterns of ownership include many diverse composites of wealth items, marginal utilities *must* decline.)

Money units are exchanged in markets for all goods and services and thereby give rise to a pattern of relative prices. Every H and BF, in order to maximize utilities from purchasing goods with dollars of income, acquires goods and spends money until the last incremental utilities of the goods and services purchased relative to their prices equal the marginal utility of the last nominal money unit held relative to its "price." The price of the money unit is its purchasing power in terms of goods and services, and it may be estimated by means of a price index. Since a general rise in prices, no matter how ragged, implies a decline in the purchasing power of money, changes in the price of money are inverse to changes in money prices. That is,

$$p_m = 1/P,$$

where p_m is the price of money in terms of goods, and P is the average of money prices for all goods and services R.

In equilibrium, as just noted, the marginal utility of money relative to the price of money for each individual equals his marginal utility for goods relative to the prices of goods. That is,

$$MU_m/p_m = MU_R/P. \quad (1)$$

Since the price of goods, P, and the price of money, p_m, are inversely related, equation 1 can be reduced to three terms:

$$MU_m/(1/P) = MU_R/P, \quad (2)$$

and,

$$MU_m = MU_R / P^2 \quad (3)$$

This last equation means that the wealth holder is in money—wealth equilibrium when the marginal utility of the nth money unit is equal to the marginal utility of goods divided by the price level *squared*. A "pure" price level inflation directly affects the

utility of nominal money, but does not affect either the utility of real money or the utilities of real goods and services.

The value of this analysis lies in its ability to show how static equilibrium between holding money and holding goods develops in a market economy where prices are stable as well as in one that suffers from a monetary inflation. Some average of all money prices specifies a "price" for money. Let this average of money prices be 100 percent of itself, or "100," when monetary circumstances are benign and stable. Likewise, let the price of money also be 100 percent of itself, or "100," at the same time.

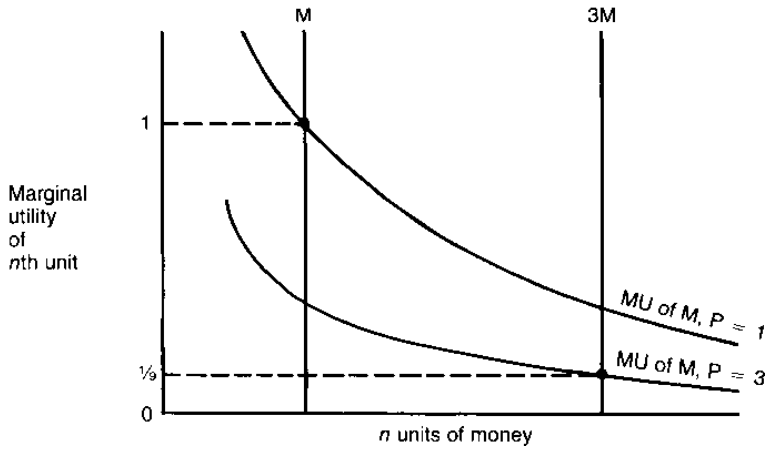

Figure 5. The Marginal Utility of Money

Let the government now print up twice the existing stock of paper money and bring this new money into existence by mailing it out as rebates on income taxes, so that everyone has three times as much money as he had originally. The stock of money has tripled, but no additional goods and services are being produced. All H and BF experience excess supplies of nominal money which they try to get rid of for other forms of wealth. In spending their money, they drive prices up to three times their original level, or to "300," and thereby reduce the *schedule* of the marginal utility of money to one-third its original value. The utilities of real goods remain constant. (An apple still tastes like an apple no matter what its money price.) However, the equilibrium marginal utility of the last unit of money would be one-ninth of its original value in accordance with equation 3. That is,

$$MU_m = MU_R / P^2 = MU_R / 9$$

(See figure 5.) If prices went up by a factor of 10, the marginal utility of the last dollar held would be one—one-hundredth of its original value, and so on.

The squared value for the marginal utility of the last dollar held is analogous to air resistance against a hard surface as a function of relative velocity. The resistance increases as the square of the speed because *n* times as many particles are hitting the surface per second, and each particle is making its impact at *n* times the original speed. Likewise in my example of inflated money, everyone must hold three times as many units of money, and each utility schedule of money has one-third the value of the original schedule. Equilibrium occurs, therefore, on a utility schedule that has been reduced by a factor of three at a point three times as far out on the money axis.

This simple analysis reflects the nature of monetary utility and its functional dependence on prices. It also implies how and why money is held and can reach an equilibrium with nonmoney wealth even under inflationary or hyperinflationary conditions. Is it not phenomenal that as the German price level in 1923 burgeoned to a billion times its 1913 level, people continued to use the hyperinflated marks? This behavior dramatizes the efficacy of money, relative to the next-best transactional commodity, for fulfilling monetary functions.

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[1] Murray N. Rothbard, "Timberlake on the Austrian Theory of Money: A Comment," in this volume.

[2] Perhaps one can argue that if Benz had not invented the real automobile, no one would have had the cultural capital required to impute utility to today's automobile, and likewise with money. This kind of inference is, however, untestable. It only confirms that money *originally* had to be a commodity.

[3] This argument by no means supports or excuses the state for improperly and immorally entering into the production of money. Rather, the recognition that real money is real economic wealth, subject to economizing by means of real resources, argues for its complete privatization. If money were not of this nature—if it were a special case, the argument for privatization would be less compelling.

[4] Rothbard and all other Austrian economists, however, *do* implicitly make such evaluations—for example, his last sentence in the quote in the third paragraph of this article.

On Yeager's "Why Subjectivism?"

Walter Block

Ordinarily, composing a critique of a published journal article presents no unusual difficulties: one simply takes aim and lets fly. But the case is somewhat different when the writer is also coeditor of the journal in question. By engaging in such criticism, he opens himself up to the objection "If the article is so bad that it needs a rejoinder, why did you allow it to appear in the first place?" Moreover, "Given that you accepted it for publication, don't you have an obligation to defend it from attack, rather than denigrate it yourself?" The implication is that the present writer either has changed his mind about the piece or is guilty of self-contradiction, neither a very satisfactory state of affairs.

In this case, however, there are two possible responses. First, the *Review of Austrian Economics* openly courts opinions specifically *not* in keeping with the views of its editors, provided only that they are at least relevant to Austrianism.[1] Agreement with editorial perspectives, then, is certainly not a condition for publication. Second, just like the "little girl with the curl on her forehead," when "Why Subjectivism?" is good, it is very, very good, but when it is bad, it is horrid.[2] However, in the (subjective) judgment of the editors, the good far outweighs the bad. For these two reasons, the present critique, which will confine itself entirely to the negative aspects of Yeager's valuable contribution, does not imply self-contradiction or fickleness on the part of its author.

What, then, are the problems with Yeager on subjectivism? There are several, beginning for the most part on page 21 (all unidentified citations shall refer to this one article) with the section entitled "I Am More Subjectivist than Thou." I shall consider them roughly in the order they appear in the original article.

Promises

Professor Yeager claims that Murray Rothbard is "not subjectivist

enough" (p. 21) with regard to promises. In Rothbard's view, unless and until some actual property has changed hands, a so-called contract is merely a promise or a set of promises.[3] In a libertarian society, which Rothbard is attempting to analyze, force can only be used in response to a prior use of force, such as theft. Since no property can be alienated with a mere promise, a broken contract where no property has changed hands cannot amount to theft. Hence, while a broken promise may be immoral, it is not actionable in a free society. The reason an actual property transfer is so important is that if it occurs, and the other party does not live up to his part of the bargain, it is as if he stole that which he received in the trade.

Yeager sees the insistence on tangible property having changed hands as an illicit deviation from proper subjectivism, which, presumably, would not distinguish between contracts on the basis of whether or not physical property has changed hands.

There are several difficulties with this view. First of all, it fails to take full cognizance of the normative-positive distinction. The appropriate level of subjectivism, presumably, is an issue in positive economics. In sharp contrast, the legal status of a broken promise in a libertarian society is a normative matter. Rothbard, in other words, was engaging in a normative inquiry; he thus must be criticized on that ground if his point is to be refuted.

Second, the theory promulgated by Yeager would not allow us to distinguish between cases where theft had and had not occurred. If no property had been transferred, and the breach was nevertheless actionable, according to subjectivist theory (even the version of it espoused by Yeager), there would be virtually no limit to what the plaintiff could claim. His costs need not be limited to out-of-pocket expenses, but could include what he had hoped to gain from the contract. And what of the broken promise to marry? Yeager's view would appear to be at least compatible with holding the promisor to his word.[4]

Blackmail and Extortion

Yeager quite rightly sees the distinction between blackmail and extortion as the difference between threatening that which one has a right to do (engage in free speech or gossip) and that which one does not have the right to enact (initiate physical force).[5] But he incorrectly interprets this difference as depending upon "the material element in a transaction" (page 21). The distinction is between invasion or noninvasion, not between material and

immaterial. Fraud, for example, is "nonmaterial," but since it amounts to theft or invasion, its threat would be the properly proscribed extortion, not blackmail, which should be legalized, on this account. But is not the threat of "ruining my reputation and my business by spreading vicious but plausible lies" (p. 21) an invasion of the person thus threatened, asks Yeager? No, it is not, because, paradoxically, none of us can ever own the reputations that refer to ourselves. On the contrary, the reputation of each of us consists of the thoughts of other people about us. Since we cannot own the thoughts of other people, we cannot own "our" reputations.[6]

Ultrasubjectivity

In Yeager's categorization of the various schools of thought with regard to subjectivism, there are only three. First are the mainstream *non*subjectivists of the neoclassical or orthodox school. (These are, presumably, the people against whom he directs his magnificently insightful remarks in the bulk of the article, pp. 5–21.) Then comes Yeager, who may be self-defined as a "moderate" or "reasonable" subjectivist (a person who carries subjectivism so far and only so far—to the proper degree, that is). Third are the ultra- or extreme subjectivists, such as Rothbard, Kirzner, and Buchanan, who carry a good thing rather too far.

I should like to suggest an alternative classification:

1. The nonsubjectivists
2. The moderate subjectivists (i.e., Yeager)
3. The Austrian subjectivists (i.e., Rothbard, Kirzner, Buchanan)
4. The ultra- or extreme subjectivists (i.e., Jack Wiseman)[7] G.L.S. Shackle,[8] Ludwig Lachmann,[9] and "hermeneuticians" associated with the market process group located at George Mason University.

Although Yeager does not explicitly make the distinction between the last two categories, I cannot imagine that he would be completely unreceptive to it, as he himself is aware that "even some members of the Austrian school" have equated "nihilism" with an exaggerated form of subjectivism (p. 27). Unfortunately, however, Yeager's failure to make this distinction a more central part of his analysis renders it less incisive than it otherwise might have been, especially with regard to monocausality, the subject to which I now turn my attention.

Monocausality

Austrians do indeed at times embrace a monocausal theory of determination, rather than the more fashionable mainstream view that all economic magnitudes are subject to a system of mutual determination. If Yeager wishes to show why this is wrong, it is incumbent upon him to do more than merely claim that such a view is "too preposterous for *anyone* to believe" (p. 22). It is also singularly unhelpful to maintain that "Austrians cannot really mean what such remarks, taken literally, convey" (p. 28). He cites Rothbard in this context, who gives, in my opinion, a perfectly coherent account of monocausality.[10] Certainly, no evidence is adduced to show that Rothbard did not really mean what he said. Far better than to launch these *ad hominem* attacks would have been to critically analyze the concept itself.

But this Austrian view does not mean that the "realities of nature, science, and technology have *nothing* to do with determining prices and interest rates" (p. 22, emphasis in original). On the contrary, as Yeager himself later seems to grant to the Austrians, "physical reality counts only *through* people's subjective perceptions of it" (p. 22, emphasis in original). In contrast, it is only the ultrasubjectivists, category D, not the Austrians, category C, who speak almost as if they wish to "banish the influence of objective reality" (p. 22).

Pure Time Preference Theory of Interest

In Yeager's view, the Austrian time preference theory of interest is a monocausal one. This is particularly unfortunate, he states, in view of the fact that the productivity of capital, or investment, also determines the interest rate. But there are several drawbacks in this perspective. Rothbard gives an example where the interest rate remains the same, even though physical productivity rises. He argues that rising productivity in the physical sense does not imply that it will rise in value terms.[11] Yeager replies that he is referring to "well-chosen" or "wisely selected" (p. 24) improvements, not to all changes that enhance physical productivity. This is a valid response, but it is somewhat tangential to Rothbard's point, which is that the interest rate pertains to the price spread between the different levels in the structure of production, and that this will be invariant (only in Evenly Rotating Economy [ERE] of course) to the value of

production.

Further, why the invidious distinction between the factors of production? When the marginal revenue product of land or labor changes, we do not say that this has any necessary implications for interest rate alterations; rather, it is commonly held that this only impinges on land rentals and wages. Why then, when the marginal efficiency of capital changes, do we not analyze this in terms of the rental price of the relevant machines? Roger Garrison said in a brilliant refutation of one version of the Fisher-inspired time preference plus productivity of capital theory of interest rate determination, "all rates are not rates of interest."[12] In like manner, we can assert that not all changes in productivity, even "skillfully chosen ones" (p. 24), are changes in the interest rate. Yeager sees the interest rates as the price of something or other: "whatever it is that the interest rate is the price of . . . the thing whose price is the interest rate" (p. 20). [13] Perhaps this explains the Fisher-inspired seizing upon of capital as the thing of which the interest race can be the price. In sharp contrast, however, exponents of the pure time preference theory see the interest rate, not as a price of anything in particular, but rather as a praxeological concept which indicates that man acts.[14]

Even if we accept the importance of the value productivity of a capital good, why does the price of the capital good not rise, in equilibrium, to absorb all future returns without any money left over for interest payments? The reason, for the Austrians, is the primordial fact of time preference. The point is that, given Yeager's productivity theory, one would expect that the price of machinery would be bid up to fully equal the sum, that is, the *non*-discounted value, of the expected future income stream.

In short, without time preference, there is no reason why, say, a machine with expected future rents, or marginal productivities, of $10,000 per year and a life of ten years should not be priced at $100,000! Without time preference, marginal productivity will be fully reflected in rents, and rents would be the sum of expected future returns (or rents) without discount. Hence, there would be no return on the capitalist's investment.

And what of a pure consumer society, one without any production at all? It would still have a loan market, with a time-preference-created interest rate, which, by stipulation, could not possibly have anything to do with productivity of capital. Therefore, it must be conceded that time preference is sufficient to establish the interest rate.[15]

I cannot conclude the discussion of this topic without commenting on Yeager's statement "Full dress argument for purely subjective value and interest theory and for unidirectional causality appears rarely in print, probably because such notions are not defensible" (pp. 22–23). Apart from being needlessly pejorative, this statement is exceedingly strange in view of the fact that he immediately goes on to cite literally several dozen instances where such views do indeed appear in print (p. 23)!

Different Goods

Next, Yeager criticizes Austrians for insisting "that goods that people consider different from each other are indeed different goods, no matter how closely they resemble each other physically" (p. 23). He urges Austrians to give up their contention "that when a manufacturer sells essentially the same good under different labels at different prices, he is nevertheless not practicing price discrimination" (p. 23). But this will not do at all. The key word, here, is *essentially*. In whose mind is the determination of sameness to be made? The Austrians answer "In the mind of the economic actor," and this would appear to make good sense. Consider the case of the "pet rock." Here was a case of an identical good (identical to the garden variety of rock which can be found underfoot) if ever there was one. Yet, because of insightful entrepreneurial and marketing skill, the purveyors of this item were actually able to sell it to the public for a price. From the Austrian vantage point, such an occurrence is easily explicable: the purchasers of the item saw a relevant difference between the "domesticated" and "wild" versions of rock. How, then, can Yeager explain this phenomenon?

Of relevance to the preceding interest rate discussion is the classical case of ice in summer versus ice in winter. Surely, no more physically identical goods can be imagined. Yet it is of the utmost importance that account be taken of the different evaluations placed on them by actual market participants. At stake is no less than the claim of a negative rate of interest.[16] Is this "excessive . . . or question begging?" (p. 23). Hardly. And yet it must readily be admitted that such a tack is indeed "likely to repel mainstream economists" (p. 23). However, despite Yeager's concern, this is not a subject that deserves serious consideration in a scholarly publication. The avowed purpose of Austrian economics, and of all other schools of thought as well, is to discern the truth, let the chips fall where they may.

Austrians, as scientists, must "follow their star," wherever it leads them, even if this is likely to repel economists mired in orthodoxy.

Alternative Costs

Yeager next takes up the cudgels against Coase and Buchanan, who define alterative costs in terms of the next best course of action forgone by the decisionmaker. He posits a "counter example," in which the next best course of action differs from the first best in only a trivial manner, the color of the lampshades in a restaurant (p. 24). Driving the point home, Yeager challenges, "How far from identical to the chosen course of action must the next best alternative be to count as a distinct alternative?" (p. 25).

What kind of answer does Yeager expect? Surely, he would be unsatisfied with the rejoinder that the chosen and alternative courses of action must differ by 2.347 units if they are to be counted as distinct. "Units of what?" is the logical response to that. The only answer consistent with Austrian subjectivism (the third category) is that it is up to the individual evaluator. For most people, on most occasions, a restaurant identical in every other respect except the color of the lampshades would not be considered an alternative cost. But for some people, under special circumstances, it might be. So this is no counterexample at all.

One does not like to harp on this point, but Yeager's treatment of this topic is marred by his attempt to discredit Buchanan's motivation for taking the stance he does (pp. 17–18). It is of course conceivable that Buchanan was led to his views of alternative costs out of political considerations (an attempt to undermine the case for central planning). But Yeager offers not a single shred of evidence for this "conjecture," and until he does, it is improper to make this accusation. Further, even if it were true that Buchanan's views were politically motivated, this is still irrelevant to their truth. That is the basic fallacy of the *argumentum ad hominem*.

In an aside, Yeager mentions some "compatible though not identical doubts" (p. 25) about Austrian subjectivist theories of alternative cost, expressed by Robert Nozick.[17] Since he does not go into details, we shall content ourselves by merely mentioning that this critique has already been answered in the literature.[18]

Implications of Cost

Yeager next takes Buchanan to task for three of his six choice-bound implications of alternative cost. They are as follows:

1. Most important, cost must be borne exclusively by the decisionmaker; it is not possible for cost to be shifted to or imposed on others.
2. Cost is subjective; it exists in the mind of the decisionmaker and nowhere else.
5. Cost cannot be measured by someone other than the decisionmaker because there is no way that subjective experience can be directly observed.[19]

With regard to numbers 1 and 2, Yeager forcefully asserts that costs can indeed "be imposed on others in quite ordinary senses of those words" (p. 25). But that is the exact difficulty. Yes, in ordinary language, costs can be imposed on other people, but alternative costs are precisely *not* the typical usage of the words. The point is that there is an equivocation here. Buchanan is correct in maintaining that costs in the sense of alternative costs (the next best opportunity forgone by the economic actor) *cannot* be imposed on other people. How on earth could they be? They consist merely of contrary-to-fact conditionals. Says the economic actor, in effect, to himself: "If I hadn't spent my money on *A*, I could have had *B*." How could *B* possibly impose anything on anyone else, when *B* does not even exist, apart from being a figment of the economic actor's imagination? Yeager, too, is correct in asserting that costs in the ordinary sense of the word can indeed be imposed on other people (such as the examples he gives on p. 25). But just because there is truth in this claim, it by no means follows that Buchanan is mistaken. Both statements are consistent with the facts and, thus, Yeager's version of the truth completely fails to overturn Buchanan's.

In like manner, Yeager offers some important and valid insights in his criticism of Buchanan's statement 5. But again, his critique fails utterly. No one, least of all Buchanan, denies that money costs are important and useful, nor that they can be estimated. Buchanan has never to my knowledge urged that we throw out cost accounting, nor denied "the vital role it plays in conveying information" (p. 26). The point is that statement 5 refers, not to money costs, but to alternative or opportunity costs, as any even halfway sympathetic reading of Buchanan

would make clear. So it is not so much that Yeager's insights are incorrect as they are beside the point. And again I must object to Yeager's gratuitous attribution to Buchanan, in this case, that he is being subversive to the truth "in a good cause" (p. 26).

Quantifying Benefits and Costs in Good Faith

Like the first two points considered, this final one refers to a normative, not a positive, issue. Here, Yeager offers the view that "when some decision or other *has* to be made" (p. 26, emphasis added) about a dam, airport, or subway, that we should not "ramble on about how imponderable everything is," but rather "try in good faith to quantify benefits and costs" (p. 26). First of all, it is by no means true that such decisions *have* to be made. It is indisputable that they have indeed been made in the past, and the likelihood is that this pattern shall long continue, but there is no necessity for this. Decision making is a product of choice, and choice is the result of thinking. Possibly, one day people's thinking will change, and goods of this sort will be created voluntarily, in the complete absence of eminent domain legislation.[20] Certainly, Yeager's assumption of the inexorability of this sort of decision making is unlikely to change matters. Second, even assuming that eminent domain will always exist, it does not at all follow that "we" should cooperate. As moral agents, it behooves us *not* to cooperate with the evil of forcing people to give up their property against their will. By providing a scientific patina to the claim that benefits and costs can be nonarbitrarily measured, or even estimated, economists only strengthen the moral and intellectual case for denigrating private property rights.

The author wishes to thank Murray N. Rothbard, James Buchanan, and two anonymous referees for helpful comments.

[1] See Murray N. Rothbard and Walter Block, "Introductory Editorial," *Review of Austrian Economics*, Vol. 1, pp. xi–xiii.

[2] Leland Yeager, "Why Subjectivism," *Review of Austrian Economics*, Vol. I, pp. 5–31.

[3] Murray N. Rothbard, *Man, Economy and State* (Princeton, N.J.: Van Nostrand, 1962, pp. 153–54).

[4] States Murray N. Rothbard in *The Ethics of Liberty* (Atlantic Highlands, N.J. Humanities Press, 1982, p. 134):

> Suppose that A promises to marry B; B proceeds to

> make wedding plans, incurring costs of preparing for the wedding. At the last minute, A changes his or her mind, thereby violating this alleged "contract." What should be the role of a legal enforcing agency in the libertarian society? Logically, the strict believer in the "promise" theory of contracts would have to reason as follows: A voluntarily promised B that he or she would marry the other; this set up the expectation of marriage in the other's mind; *therefore* this contract must be enforced. A must be *forced* to marry B. As far as we know, no one has pushed the promise theory this far.

Perhaps Rothbard is incorrect in the last sentence of this quote.

[5] See Walter Block, *Defending the Undefendable* (New York: Fleet Press, 1976); Walter Block, "Trading Money for Silence," *University of Hawaii Law Review*, Vol. 8, No. 1, spring 1986, pp. 57–73; Walter Block and David Gordon, "Blackmail, Extortion and Free Speech: A Reply to Posner, Epstein, Nozick and Lindgren," *Loyola of Los Angeles Law Review*, Vol. 19, No. 1, November 1985; Rothbard, *Ethics of Liberty*, pp. 121–27.

[6] See Walter Block, *Defending the Undefendable*, pp. 59–62. States Rothbard, *Ethics of Liberty*, p. 127: "A writes a book; B reviews the book and states that the book is a bad one; the result is an 'injury' to A's reputation and a decline in the sales of the book as well as A's income. Should all unfavorable book reviews therefore be illegal? Yet such are some of the logical implications of the 'property in reputation' argument."

[7] Jack Wiseman, "Uncertainty, Costs, and Collectivist Economic Planning," *Economica*, XX, May 1953; Jack Wiseman, "The Theory of Public Utility Price—An Empty Box," *Oxford Economic Papers*, 9, February 1957.

[8] G.L.S. Shackle, *Time in Economics* (Amsterdam: North Holland, 1958); G.L.S. Shackle, *Epistemics and Economics* (Cambridge, England: Cambridge University Press, 1972).

[9] Ludwig Lachmann, "From Mises to Shackle: An Essay on Austrian Economics and the Kaleidic Society," *Journal of Economic Literature*, XIV, March 1975, p. 55; Ludwig Lachmann, "Reflections on Hayekian Capital Theory," paper delivered at the Allied Social Science Association Meetings in Dallas, Texas (New York: Photocopy, 1975, p. 13), cited in Gerald P. O'Driscoll, Jr., "Spontaneous Order and the Coordination of Economic

Activities," in Louis M. Spadaro, ed., *New Directions in Austrian Economics* (Kansas City, Kans.: Sheed Andrews and McMeel, 1978).

[10] Rothbard, *Man, Economy and State*, pp. 302–3.

[11] See Rothbard, *Man, Economy and State*, pp. 360–64.

[12] Roger W. Garrison, "In Defense of the Misesian Theory of Interest," *Journal of Libertarian Studies*, Vol. Ill, No. 2, Summer 1979, p. 146.

[13] For the Austrians, the interest rate is not the price of anything, but rather a *ratio* of two different prices. For example, the interest rate would be equal to the present price of $100 due in three years, divided by the present price of $100 due in four years, minus one.

[14] Says Ludwig von Mises:

> Time preference is a categorical requisite of human action. No mode of action can be thought of in which satisfaction within a nearer period of the future is not—other things being equal—preferred to that in a later period. The very act of gratifying a desire implies that gratification at the present instant is preferred to that at a later instant. He who consumes a nonperishable good instead of postponing consumption for an indefinite later moment thereby reveals a higher valuation of present satisfaction as compared with later satisfaction. If he were not to prefer satisfaction in a nearer period of the future than that in a remote period, he would never consume and enjoy. He would not consume today, but he would not consume tomorrow either, as the morrow would confront him with the same alternative. (*Human Action*. Chicago: Regnery, 1966, p. 542)

See also Carl Menger, *Principles of Economics*, trans. Dingwall and Hoselitz (New York: New York University Press, 1981, pp. 152–56).

[15] See Rothbard, *Man, Economy and State*, pp. 360–64.

[16] Rothbard, *Man, Economy and State*, p. 61; also Walter Block, "The Negative Rate of Interest: Toward a Taxonomic Critique," *Journal of Libertarian Studies*, Vol. 2, No. 2, Summer 1978, pp. 121–24.

[17] Robert Nozick, "On Austrian Methodology," *Synthese*, 36, November 1977, pp. 353–92.

[18] See Walter Block, “On Robert Nozick’s ‘On Austrian Methodology’,” *Inquiry*, Vol. 23, No. 4, Fall 1980, pp. 427–28.

[19] James M. Buchanan, *Cost and Choice: An Inquiry in Economic Theory* (Chicago: Markham, 1969, p. 43).

[20] See in this regard Murray N. Rothbard, *Power and Market: Government and the Economy* (Menlo Park, Calif.: Institute for Humane Studies, 1970, pp. 56–57); also, Walter Block, “Free Market Transportation: Denationalizing the Roads,” *Journal of Libertarian Studies*, Vol. III, No. 2, Summer 1979, pp. 209–38.

Reply to Comment by Walter Block

Leland B. Yeager

I thank Dr. Block for praising most of my article and attacking only certain points. I need not reply to all his criticisms: the reader can recognize their nature and see how he and I differ without my dragging the discussion out to tedious length. I shall give only a few examples of my reaction.

After saying that "[f]ull-dress argument" for certain indefensible propositions "appears rarely in print," I went on to cite several published assertions. Block sees an inconsistency. He should know the difference between assertion and argument.

Block provides a prime example of trying to talk away price discrimination by interpreting differently priced goods as different goods, period. Doing so tends to forestall potentially fruitful questions, such as how producers of a good may divide their market into segments with different demand elasticities. It illustrates the "Austrian vice"—disposing of substantive issues or reaching ostensibly substantive conclusions by mere verbal maneuvering. Block should be sobered, not gratified, on realizing how many phenomena his brand of Austrian theory renders "explicable." A theory that explains everything (Freudianism or Marxism, perhaps, or all-purpose subjectivism) explains nothing in particular.

I asked whether Murray Rothbard might not have been insufficiently subjectivist, untypically, in his views on extortion, blackmail, and mutual promising. Block reminds us that Rothbard was engaged in normative, not positive, inquiry. Yes, but facts do serve as part of the grounds for normative judgments; and I was questioning, for example, Rothbard's sharp distinction between an extortionist's threat of physical violence, however slight, and his threat of circulating vicious lies. An associated disagreement between Rothbard and Block on the one hand and me on the other concerns the relation between morality and law.

Here we lack space to clear up these disagreements. Suffice it to say that Rothbard and Block try to reach all sorts of specific judgments on the basis of their conception of natural rights,

including property rights in particular, all supposedly deduced from the axioms of self-ownership and Lockean homesteading. This framework incurs suspicion from the counterintuitive judgments that it grinds out on several issues. I work with a broadly utilitarian framework instead. Since utilitarianism is anathema in certain circles, in self-defense I refer readers to my article in *Cato Journal*, Spring/Summer 1985. I do not spurn rights—quite the contrary—but their articulation needs adequate grounding.

Block accuses me, in my discussion of "London" cost concepts, of impugning the motives and moral character of James Buchanan. This was not at all my intention, and I am astonished that Block should think it was. I admire Buchanan and his work. In the challenged passages, I was suggesting that when one inquires into the meaning of odd propositions and odd word usages, it may help to consider the contexts in which they arise and the purposes they serve. Evidently, though, I wrote imprecisely enough to permit Block's misinterpretation. For this failing I offer Professor Buchanan my profound apologies.

And I offer him another apology. Almost from the moment when it was too late to change my article, I realized with horror that I had made a terrible omission. I had somehow forgotten one of the greatest triumphs of subjectivist economics. In his *Public Principles of Public Debt* (Homewood, Ill.: Irwin, 1958) Buchanan showed that the burden of government expenditures can indeed be shifted into the future by deficit financing through issue of bonds. The conventional wisdom among economists (shared even by Ludwig von Mises, as in *Nation, State, and Economy*, pp. 167–68, and *Human Action*, 2nd ed., p. 227) had been unduly materialistic: the burden cannot be shifted through time, since resources are used when they are used. Buchanan exposed the error by recognizing that a burden is something subjectively perceived. Persons who give up current command over resources in exchange for government bonds that they find attractive to buy perceive no burden in doing so. It is in the future that people—in general, people other than the original bond-buyers—will bear the burden of paying taxes to service the debt or losing through its inflationary or outright repudiation.

The story is more complicated than this; but the subjectivist aspect, which Buchanan emphasized, lies at its core. I am especially remorseful about neglecting this contribution in an article in which, although lauding some of Buchanan's other work, I considered a few criticisms relevant.

Saving the Depression: A New Look at World War II

Mark Skousen

The economic boom accompanying World War II is, as Gene Smiley notes, frequently used by Keynesian economists to demonstrate that high federal deficit spending is a cure for a depression.[1] In support of this thesis, Ross M. Robertson declares:

> From 1935 on . . . it was evident that output and incomes had risen because of net income injections by the government. Had these income-increasing injections been made more vigorously, from mid-1936 to mid-1938, in spite of fears of a rising national debt shared by most conservatives, the American economy would doubtless have bounded ahead much sooner. Anyone unconvinced on this point has only to look at the budget, income, and production figures for the World War II period.[2]

Robertson and other fiscalists point to the fact that gross national product more than doubled during World War II, from $99.7 billion in 1940 to $211.9 billion in 1945. During this same period, industrial production almost doubled, and durables output increased more than two and a half times. Robertson admits that, "To some extent these gains were illusory because prices rose moderately, many consumer durables disappeared from the market, and the quality of available durables and many nondurables declined."[3] Nevertheless, the sharp decline in unemployment was not illusory. There were 8 million unemployed Americans in 1940. By 1943, there were less than a million, and the figure stayed low for the remainder of the war. (For a summary of figures, see table 1 and figure 6.)

The underlying cause of this economic upswing was, according to advocates, a highly expansionary fiscal policy. Government expenditures rose from $14 billion in 1940 to a high of nearly $100 billion by 1944. (See table 2.) Most of the federal spending was war-related. Revenues also rose as the federal

government imposed broad-based income taxes on individuals and corporations and an excess profits tax on businesses. The high tax rates were seen by Keynesians as a positive measure to ward off inflationary pressure as the country approached full employment and to divert excessive consumption to aid war production. Nevertheless, revenues did not keep up with expenditures, and the net result was a historic level of red ink. The federal deficit was $6 billion in 1940, rising to $89 billion by 1944.

Table 1
GNP, Employment, and Unemployment, 1939–46

	Gross National Product (billion $)	*Employment (millions)*	*Unemployment (millions)*
1939	90.5	45.7	9.5
1940	99.7	47.5	8.1
1941	124.5	50.3	5.6
1942	157.9	53.8	2.7
1943	191.6	54.5	1.1
1944	210.1	54.0	0.7
1945	211.9	52.8	1.0
1946	208.5	55.3	2.3

Source: Series F 47–70, "Gross National Product, by Type of Expenditure, in Current and Constant (1958) Prices: 1929 to 1970." Series D 1–10, "Labor Force and Its Components: 1900 to 1947." *Historical Statistics of the United States, Colonial Times to 1970*, U.S. Department of Commerce, 1975.

Monetary Policy

But Washington's fiscal policy was not made in a vacuum. Smiley correctly points out that the monetary policy changed in the early 1940s to accommodate increased war expenditures. The Federal Reserve Board adopted an extremely expansionary policy during this period. As table 3 shows, the stock of money, whether measured in terms of M1 or M2, increased approximately 20 percent a year, basically doubling during the war. Figure 7 illustrates such trends as money in circulation, reserve bank credit, gold reserves, and excess reserves. Bank

excess reserves, which were at a high level during the Depression, practically disappeared. The Fed's extremely liberal monetary expansion allowed the growing federal debt to be monetized. Hence, Smiley concludes, "With such an expansionary (or inflationary) monetary policy, economists cannot conclude that it was fiscal policy rather than monetary policy that was the proximate cause of the more rapid recovery."[4]

Smiley expresses skepticism about the ability of fiscal and monetary policy to stimulate higher employment and output during the war, although he does not say why. It is clear, in any case, that government policy greatly altered the structure of production from civilian to military use.

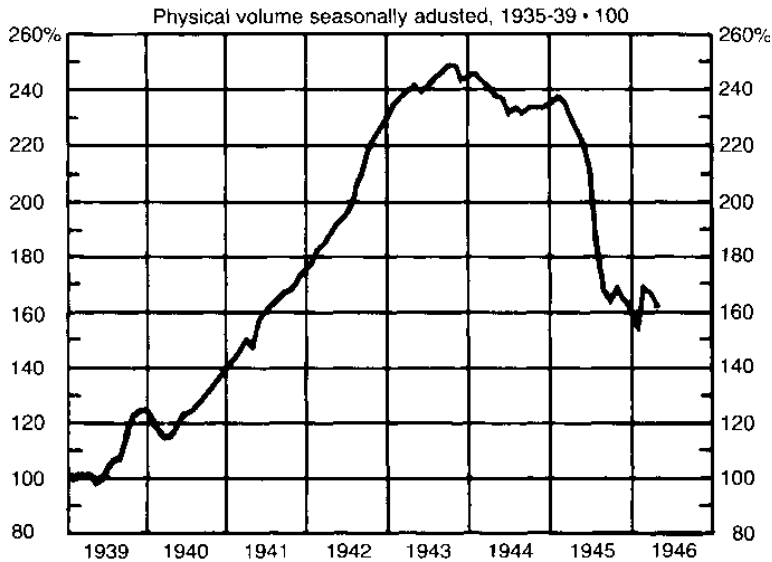


Figure 6. Industrial Production Index, 1939–46
Source: *Federal Reserve Bulletin*, July 1946.
Note: Federal Reserve index. Monthly figures; latest shown are for May 1946.

According to the Austrian business cycle theory (as espoused by Hayek, Mises, and Rothbard), the key to *lasting* recovery from a depression is not to increase government spending or to reinflate the money supply. Either policy can only make matters worse in the long run. Instead, government authorities should get out of the way and allow market forces to reestablish a coordinated production process between investment and consumption. The sooner the government adopts an attitude of noninterference with market processes, the more quickly

employment, income, and the general economy will recover and return to normalcy. Generally, Austrian economists advocate decreased government spending, lowered wage rates, and reduced tax rates as the most effective road to economic revival. [5]

The objective of these laissez-faire policies is to encourage a genuine, stable recovery in the capital markets, which Hayek and other Austrian economists see as the chief focal point of most business cycles. A depression is not usually an evenly spread out *general* depression, but in fact is characterized by a far greater decline in the capital goods markets compared to the consumer goods industries. Both sectors decline in activity during a depression, but the capital goods industries are hit hardest by far. For example, during 1929–33, personal consumption expenditures declined from $77 billion to $46 billion, a 40 percent decline. But capital investments declined more steeply, from $16 billion to $1.4 billion, a collapse of over 90 percent. In addition, the decline in employment was far greater in the capital goods industries than in the consumer goods industries. [6]

Table 2
Government Fiscal Policy, 1939–46 (*billion $*)

	Expenditures	***National Defense Expenditures***	***Revenues***	***Surplus or Deficit***
1939	13.3	1.2	11.1	-2.2
1940	14.0	2.2	13.3	-0.7
1941	24.8	13.8	21.0	-3.8
1942	59.6	49.4	28.2	-31.4
1943	88.6	79.7	44.5	-44.1
1944	96.5	87.4	44.7	-51.8
1945	82.3	73.5	42.5	-39.8
1946	27.0	14.7	32.4	+ 5.4

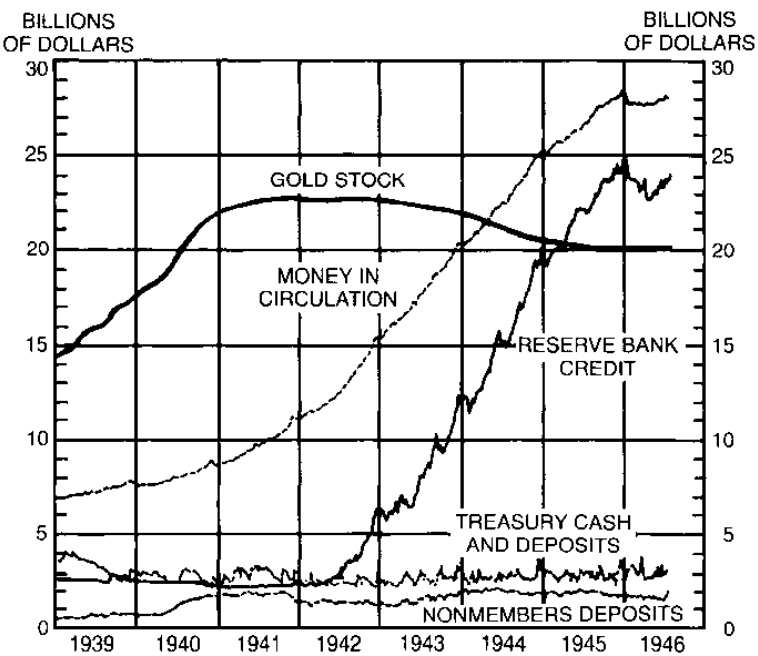
Source: Series F 552–565, “Sources and Uses of Gross Saving: 1929 to 1970.” Series F 4770, “Gross National Product.” *Historical Statistics*.
Note: The table includes federal, state, and local financing.

Table 3

Monetary Expansion, 1939–46 (*billion $*)

	M1	*M2*
1939	34.15	49.27
1940	39.65	55.20
1941	46.52	62.51
1942	55.36	71.16
1943	72.24	89.91
1944	85.34	106.82
1945	99.23	126.63
1946	106.46	138.73

Source: Series X 410–419, "Money Stock—Currency, Deposits, Bank Vault Cash, and Gold: 1867 to 1970," *Historical Statistics*.
Note: M1 refers to currency plus demand deposits. M2 is M1 plus time deposits.



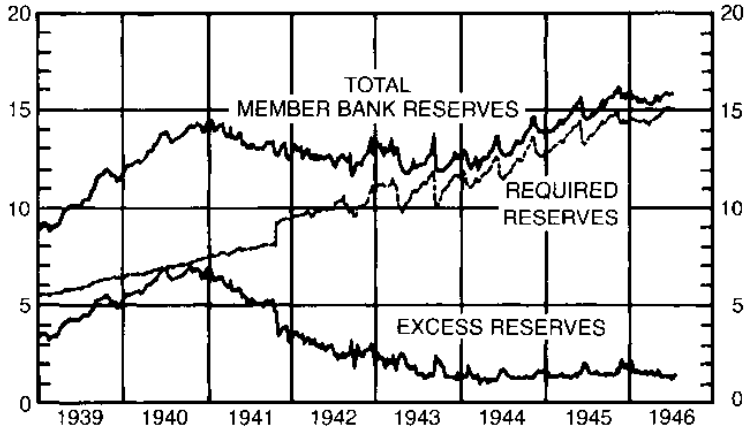


Figure 7. Monetary Trends: Member Bank Reserves and Related Items, 1939–46

Source: *Federal Reserve Bulletin*, August 1946.
Note: Wednesday figures. Latest shown are for July 24, 1946.

The key to economic recovery, then, is to reestablish a proper balance between capital investment and consumer spending. An artificial credit boom encourages excessive investment in the capital goods market, so that when the economy heads toward depression, the collapse in the capital goods market can be just as extreme as the boom.

Is there any way to accelerate the recovery in the capital markets besides lowering taxes, adjusting wages, and so on? Rothbard offers a provocative remedy: encourage a genuine increase in the propensity to save! This suggestion will appear as anathema to the Keynesians who envision savings as mere "hoarding" and a negative drain from the economic system. However, Austrian economists generally argue that saving by individuals and corporations is the key to reactivating the capital markets and, hence, opening the door to economic revival.

Referring to the transition to recovery in a depression, Murray Rothbard states:

> The adjustment consists, as we know, of a return to the desired consumption/ savings pattern. Less adjustment is needed, however, if time preferences *themselves* change: i.e., if savings increase and consumption relatively declines. In short, what can help a depression is not more consumption, but, on the contrary, less consumption and more *savings* (and, concomitantly, more investment).[7]

The Impact of Higher Savings Rates

Based on the preceding concept, I wish to add an addition to Smiley's analysis by proposing another plausible explanation for the economic recovery during World War II. Increased government spending, assisted by an extremely accommodating monetary policy, does not alone explain the economic recovery in the early 1940s. Instead, I suggest that the World War II economic boom was in large part the result of a third major factor, often ignored by most economists. This factor is the unprecedented rise in personal and business saving rates during 1941–45.[8] The spectacular rise in private savings provided the billions of dollars necessary to support the war, and without this quasi-voluntary stimulus to the capital markets, the world conflict may have been prolonged beyond 1945 and would have had a far more deleterious effect on the U.S. economy. Certainly, interest rates would have been substantially higher, making it much more difficult for the Treasury to finance the war.

Table 4
Private Savings in the United States, 1939–46
(*billion $*)

	Gross Private Savings	*Personal Savings*	*Gross Business Savings*
1939	11.0	2.6	8.4
1940	14.3	3.8	10.5
1941	22.4	11.0	11.4
1942	42.0	27.6	14.5
1943	49.7	33.4	16.3
1944	54.3	37.3	17.1
1945	44.7	29.6	15.1
1946	29.7	15.2	14.5

Source: Series F 552–565, "Sources and Uses of Gross Saving: 1929 to 1970," *Historical Statistics*.
Note: Gross private savings is equal to total household and business saving. Government saving is not included. Household expenditures on consumer durables, except on residential construction, are not treated as savings. The figure is "gross," which includes capital consumption allowances for business and depreciation on personal residences.

Totals do not always add up perfectly due to rounding.

What took place in the early 1940s is unmistakable. The rate of savings by both individuals and businesses increased to historically unprecedented levels in the United States. Personal savings climbed from $3.8 billion in 1940 to a high of $37.3 billion in 1944, an incredible tenfold increase in five years. As a percentage of disposable personal income, the figures for personal savings are even more spectacular, increasing from a meager 5 percent in 1940 to almost 26 percent in 1944. (See table 4 and figure 8.) Such high rates of individual saving have not been observed in the United States before or since World War II, and they have only been approached in percentage terms by Japan in the postwar period.

Business savings also increased during the war, although not as much as personal savings did. Gross business savings (which include undistributed corporate profits, corporate inventory adjustments, and capital consumption allowances) increased from $10.5 billion in 1940 to a high of $17.1 billion in 1944. Over all, total household and business savings grew from $14.3 billion in 1940 to $54.3 billion by 1944.

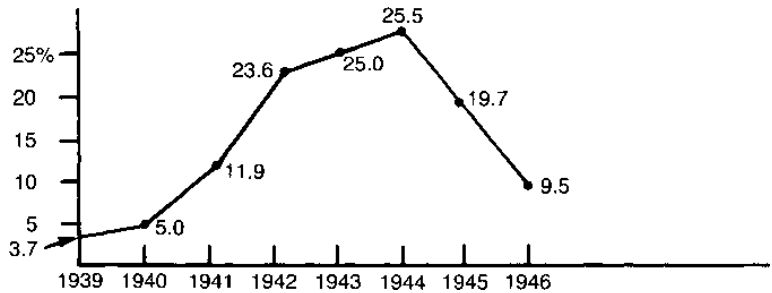


Figure 8. Personal Savings as a Percentage of Disposable Personal Income, 1939–46

Source: Series F 144–162, "Relation of Gross National Product, National Income, and Personal Income and Saving: 1929 to 1970," *Historical Statistics*.
Note: Disposable personal income is after tax.

The Lag in Consumption

At the same time, personal consumption expenditures hardly grew at all during the war. Despite a substantial increase in industrial output, business profits, and personal income, total consumption rose only moderately—from $70.8 billion in 1940 to $119.7 billion by 1945. Because of widespread shortages, spending on consumer durables, such as cars and appliances, actually declined significantly during the war. (See table 5.) In

per capita real terms, consumer spending was at a virtual standstill.

Clearly, the United States embarked on a course of sacrifice and abstinence, albeit not always by choice, in an all-out effort to end the conflict. Consumption was restrained, savings rose, and military-industrial production and income increased. Similar results occurred in Britain, where private savings rose from 9 percent of personal income in 1939 to 19 percent by 1943. Consumer spending lagged, and war-related industrial production expanded while private capital formation fell.[9]

An overview of the relationship between private surpluses and government deficits in the United States during the war is summarized in table 6. It demonstrates how significantly the Treasury depended on private savings to finance the war.

Table 5
Personal Consumption Expenditures, 1939–46
(*billion $*)

	Consumer Spending	*Consumer Durable Spending*
1939	66.8	6.7
1940	70.8	7.8
1941	80.6	9.6
1942	88.5	6.9
1943	99.3	6.6
1944	108.3	6.7
1945	119.7	8.0
1946	143.4	15.8

Source: Series F 262–286, "Personal Income and Outlay: 1929 to 1970." Series F 47–70, "Gross National Product." *Historical Statistics*.

Table 6
Private Surpluses and Federal Deficits, July 1, 1940—June 30, 1945
(*billion $*)

Federal government:	
Federal expenditures	323
Taxes	133
Deficit	190

Private economy:	
Income after taxes	651
Expenditures	469
Surplus	182
Surplus of state and local government	8
	190

Source: Treasury Bulletin, December 1945.

Austrian Theory of Economic Growth

The Austrian theory of economic growth suggests that a change in time preference in favor of savings and *future* consumption will result, *ceteris paribus*, in an expansion in the capital goods industries, lower interest rates, and, eventually, an increase in income and consumption.

Although several variables (including government spending, monetary inflation, and tax rates) changed during World War II, it is remarkable how economic trends followed this Austrian scenario. Consumer spending was retarded and the rate of savings was expanded. While interest rates did not decline nominally, they remained remarkably stable in the face of massive federal borrowing, monetary expansion, and price inflation. Prime corporate bonds yielded between 2.54 percent and 2.66 percent from 1941 to 1946, practically no change. Yields on long-term U.S. bonds varied little, from 1.95 percent to 2.48 percent. In essence, the Treasury was able to finance the war at 2 1/2 percent without much difficulty. Short-term interest rates (3 months or less) were less than 1 percent. In short, real interest rates may well have declined during the war. They certainly could not have stayed low without the high level of private savings.[10]

According to Austrian theory, increased savings and lower interest rates will, other things being equal, precipitate an expansion of raw commodities and capital-intensive industries. That, indeed, occurred during World War II. New funds from private savings and increased taxes were used to divert labor and industrial production from producing goods and services for civilian use (such as cars, appliances, residential housing, and education) to military materiel and supplies (such as tanks, munitions, and ships), which generally involved capital-intensive heavy industry.

The net effect, as Austrian economists might predict, was an

economic boom, primarily in the capital goods industries. Production of machinery quadrupled. Transportation equipment production increased sevenfold. During 1940–44, production of electrical energy jumped from 180 billion kilowatt-hours to 278 billion, a 55 percent increase. Steel output increased from 67 billion tons to 90 billion tons. Aluminum products rose from 573 million pounds to 2,204 million. Increased national manufacturing plan capacity—floor space, tools, and equipment—grew by 30 percent. Billions of dollars were spent on military and technological research and development by government laboratories, universities, and industry.[11] Table 7 shows industrial growth by sector.

Employment in these capital goods industries increased at a rapid pace and brought millions of previously idle workers back to work. Unemployment, which was highest in the capital-producing sectors during the Depression, was sharply reduced to less than 1 million by 1943. Unionization and demands for higher wages, referred to by Smiley, were no longer a deterrent to employment.

It is estimated that half of industrial production went toward the war effort, half toward civilian use. The federal government was directly responsible for a great deal of military production. It spent $30 billion for buildings, tools, and ships, and another $60 billion for food, shelter, clothing, and services for the armed forces. At the end of the war, the United States owned 90 percent of the synthetic rubber plants, aircraft, magnesium, and ships; 70 percent of aluminum capacity; and 50 percent of machine-tool buildings. The government was responsible for building plants that produced steel, high-octane gasoline, and chemicals as well as 3,800 miles of oil pipelines to carry petroleum to the east coast.[12]

Table 7 Industrial Growth by Selected Sectors, 1939–46 (*billion $*)

	Agriculture	*Mining*	*Construction*	*Manufacturing*	*Transportation*
1939	6.0	1.6	2.3	18.1	4.6
1940	6.1	1.9	2.6	22.5	5.0

1941	8.4	2.4	4.2	33.2	6.3
1942	12.2	2.6	6.5	45.4	8.6
1943	14.4	2.8	5.5	58.3	10.8
1944	14.5	3.0	4.1	60.3	11.2
1945	15.2	2.8	4.3	52.2	10.5
1946	18.2	3.0	6.5	49.1	10.3

Source: Series F 226–237, "National Income by Industrial Origin, in Current Prices: 1929 to 1970," *Historical Statistics*.

Table 8
Private Investment Activity, 1939–46 (*billion $*)

	Gross Private Domestic Investment	*Producers' Durable Equipment*
1939	9.3	4.0
1940	13.1	5.3
1941	17.9	6.6
1942	9.8	4.1
1943	5.7	3.7
1944	7.1	5.0
1945	10.6	7.3
1946	30.6	10.2

Source: Series F 47–70, "Gross National Product," *Historical Statistics*.

But private industry and individual savings played a pivotal role in the war effort. The war required new industrial plants, alterations in existing plants, and new tools and equipment. Often, these changes were paid for by private companies, taking advantage of rapid depreciation write-offs on their corporate tax returns and profitable government contracts. Private enterprise was also responsible for fulfilling nongovernment consumer demand throughout the war, and performed an admirable job, considering the bottlenecks and restrictions that were created by rationing, price controls, and other forms of government intervention. Nongovernment GNP grew from $85.7 billion in 1940 to 129.9 billion in 1945, hobbled by a lack of private capital expenditures. Nongovernment industrial output fell by 7 percent. Residential construction and automobile production for personal use were minimal throughout the war. Gross private domestic investment stagnated during the early 1940s, declining from $17.9 billion in 1941 to $7.1 billion in 1944. (See table 8.)

Combined Effect of Increased Savings and Bank Credit

I am not suggesting that personal and business savings and investment were the sole impetus to the economic recovery in the early 1940s. The massive increase in government spending and the money supply also contributed to the economic boom, however artificial and short-term they were compared to the benefits of increased private savings. As Hayek and other Austrians have emphasized, bank credit expansion can have the same short-term effects on the economic structure as an increase in private savings: lower real interest rates and a temporal expansion of the capital-goods industries relative to consumption. In fact, James A. Estey in his book, *Business Cycles*, argues that the use of expanded bank credit to produce armaments in World War II is an example of Hayek's thesis on the effects of monetary inflation, as long as war goods are treated as "capital."[13]

In short, the economic boom in World War II was ignited by two powerful forces working in tandem—an expansionary government policy and a dramatic increase in private savings. Which trend had the greatest effect on economic activity is difficult to ascertain. Suffice it to say that both factors were sufficiently large not to be ignored.

Causes of the Increase in Private Savings

What factors led to the dramatic increase in private savings rates during World War II? As Friedman and Schwartz point out, the increase in income in the early 1940s does not sufficiently explain savings rates exceeding 20 percent.[14] There are several alternative explanations.

First, there was a lack of consumer spending options. Personal income rose substantially in 1941–45, but new consumer durables, such as automobiles, appliances, and housing, were not generally available. There were also shortages and rationing in food, clothing, and other nondurables. In this sense, individuals had little choice but to engage in a form of "compulsory savings."

Second, the public responded significantly to patriotic appeals to buy U.S. savings bonds and other government securities. Over $156 billion worth of government war bonds were sold to corporations, banks, insurance companies, and

individuals. Still, U.S. savings bonds were not the only alternative plan for investors; while approximately 30 to 40 percent of individual savings went toward the buying of government securities, the rest was invested in savings accounts via commercial banks, savings and loan associations, and life insurance cash reserves. All of these private alternatives showed a substantial increase during 1941–45.

Friedman and Schwartz do not feel that the high savings rate was caused entirely by the patriotic appeal to buy war bonds:

> The recurrent bond campaigns with their appeal to patriotism may have contributed also to the high rate of savings, but we are inclined to be skeptical that they had much effect on the amount of savings. If they had an effect, it was probably on the form in which savings were held—more in government securities relative to other assets.[15]

Third, many Americans held the view that prices would decline after the conflict, as had happened in the past. Withholding spendable funds made sense in expectation of lower prices.

When the war came to an end, the purchase of government savings bonds declined, and so did the overall savings rate. Private industry could once again return to the production of consumer goods and services in response to unsuppressed consumer demand. The structure of production shifted back from a command economy to a free economy. The resultant decline in GNP was temporary, however. The postwar decline in individual savings was offset by a massive rise in private capital formation and investment as well as consumer spending. Gross private domestic investment jumped from $10.6 billion in 1945 to $30.6 billion in 1946 in an effort to meet the burgeoning demands for increased consumption.

A Genuine Economic Recovery: Fact or Myth?

Ultimately, the question must be asked, did the war boom amount to a genuine economic recovery? Normally, under peacetime conditions, a rise in business investment and personal savings would lead to an economic recovery and higher standard of living. However, in the case of World War II, a large part of the money set aside by individuals and business went toward the production of war goods, which had little value when hostilities

ceased. In essence, the United States and other nations engaged in massive "capital consumption." As economic historian Robert R. Russel concludes, $230 billion—equal to two years of national income—were spent on "goods and articles shot away, sunk in the sea, or abandoned to rust in the jungles of New Guinea, or paid out in wages and salaries to members of the armed forces for their military services."[16]

Seymour Harris looks at capital consumption in another way.

> In the war period gross private investment amounted to but $29 billion, although gross private savings amounted to $195 billion. The $29 billion were but two-thirds of the business depreciation charges. In other words, the country was living on capital. By using only a small part of gross private savings, business thus enabled government to finance $165 billion of deficits out of private and business savings that otherwise would have been used primarily for private investment.
>
> In 1946–49, the picture was entirely different. Gross private investment at $151 billion exceeded gross private savings by $23 billion, and was three times as great as business depreciation charges. Personal savings accounted for an even smaller percentage of private investment than in 1936–39; and around $23 billion of the private investment were offset by savings (surpluses) of government.[17]

According to national wealth statistics compiled by the U.S. Department of Commerce, there was virtually no change in national wealth in real terms from 1941 to 1945. Based on 1947–49 prices, the nation's wealth amounted to $748.4 billion in 1939. In 1945, it was $763.7 billion. But in per capita terms, the national standard of living appears to have declined.[18]

Certainly, millions of idle workers were put back to work, but hundreds of thousands died or were wounded on the battlefield. Employment during the war was not particularly easy. The average work week rose 20 percent in manufacturing, construction, and mining, and many key employees, especially engineers, had to work weary 14-hour days, 7 days a week. Taxes increase dramatically and permanently. The standard of living declined during this time, despite higher incomes, as

Americans gave up many of the pleasures of life. Construction of private housing, automobiles, and appliances came to a standstill. Sugar, coffee, meat, and other food products were often in short supply and, despite price controls and rationing, prices still rose an average 30 percent during the war. Businesspeople were fined and jailed for violating price control and rationing regulations.[19] The only clear winner in the war was the government, which never fully relinquished its power and size after the war. As Randolph Bourne aptly states, "War is the health of the state."

In sum, we must not conclude that war is "good" for the economy or, in a more generic sense, that increased government spending or monetary inflation is the countercyclical cure for a depression. Ultimately, economic malaise can only be permanently overcome by a noninterventionist policy, by freeing the human spirit, and by adopting a long-range time horizon through the virtues of thrift, hard work, entrepreneurship, and capital formation. Regarding the World War II case, Stuart Chase said it best in 1946: "The conclusion here is not that chronic warfare is the cure for chronic depression, but a more hopeful one. People must have a *goal* to stir them to activity; something big to do, to make sacrifices for. Then their latent powers really come out."[20]

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[1] Gene Smiley, "Appendix: The Early 1940s Recovery," in his article, "Some Austrian Perspectives on Keynesian Fiscal Policy and the Recovery in the Thirties," *Review of Austrian Economics*, 1: 167.

[2] Ross M. Robertson, *History of the American Economy*, 3rd ed. (New York: Harcourt Brace Jovanovich, 1973), p. 709.

[3] Ibid.

[4] Smiley, op. cit., p. 167.

[5] On the ill effects of reinflation, see Friedrich A. Hayek, *Monetary Theory and the Trade Cycle* (New York: Augustus M. Kelley, 1975 [1933]), pp. 19–23. On increased government spending as a countercyclical measure, see Ludwig von Mises, *Human Action*, 3rd ed. (Chicago: Henry Regnery, 1963), pp. 798–99. On reducing taxes, wages, etc., during a depression, see Murray N. Rothbard, *America's Great Depression*, 3rd ed. (Kansas City, Kans.: Sheed and Ward, 1975), pp. 25–29.

[6] Series F 47–70, "Gross National Product," *Historical Statistics of the United States*. For a general discussion of the volatility of the capital markets in a business cycle, see James A. Estey, *Business Cycles*, 2nd ed. (New York: Prentice-Hall, 1950), pp. 228–48.

[7] Rothbard, op. cit., p. 24.

[8] The only economists I know who have commented on the high rate of savings during World War II are Milton Friedman and Anna Jacobson Schwartz, *A Monetary History of the United States, 1867–1960* (Princeton, N.J.: Princeton University Press,

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[9] "British White Paper on War Finance," *Federal Reserve Bulletin*, July 1946, pp. 723–48.

[10] Sidney Homer, *A History of Interest Rates*, 2nd ed. (Rutgers, N.J.: Rutgers University Press, 1977), pp. 356–57.

[11] Robert R. Russel, *A History of the American Economy* (New York: Apple-ton-Century-Crofts, 1964), p. 578.

[12] Ibid., p. 568.

[13] Estey, op. cit., pp. 239–40.

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[15] Ibid. See also "A National Survey of Liquid Assets," *Federal Reserve Bulletin*, July-August 1946.

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[17] Seymour Harris, op. cit., p. 164.

[18] Series F 446–469, "National Wealth, by Type of Asset, in 1929 and 1947–49 Prices: 1850 to 1958," *Historical Statistics*, op. cit.

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[20] Stuart Chase, *For This We Fought* (New York: Twentieth Century Fund, 1946), p. 49.

The Myth of Free Banking in Scotland

Murray N. Rothbard

"Free Banking" in Scotland

Professor White's *Free Banking in Britain* has already had a substantial impact on the economics profession. The main influence has been exerted by one of the book's major themes: the "wonderful" results of the system of free banking in Scotland, a system that allegedly prevailed from 1716 (or 1727) until suppressed by the Peel Act in 1845.[1] White's Scottish free-banking thesis consists of two crucial propositions. The first is that Scottish banking, in contrast to English, was free during this era; that while the English banking system was dominated by the Bank of England, pyramiding their notes and deposits on top of the liabilities of that central bank, the Scottish system, in stark contrast, was free of the Bank of England. In White's words, Scotland "rather maintained a system of 'each tub on its own bottom.' Each bank held onto its own specie reserves."[2]

The second part of the syllogism is that this free system in some way worked much better than the English. Hence, the triumphant conclusion: that free banking in Scotland was far superior to centrally controlled banking in England. White claims that the salutary effects of free banking in Scotland have been long forgotten, and he raises the hope that current public policy will heed this lesson.

The influence of White's thesis is remarkable considering the paucity of his research and the thinness of his discussion. In a brief book of less than two hundred pages, only 26 are devoted to the Scottish question, and White admits that he relies for facts of Scottish banking almost solely on a few secondary sources.[3] And yet, White's thesis on Scottish banking has been hastily and uncritically accepted by many diverse scholars, including the present writer.[4] This has been particularly unfortunate because, as I shall demonstrate, both parts of Professor White's syllogism are wrong. That is, the Scottish banks were (1) not free —indeed, they too pyramided upon the Bank of England—and

(2) not surprisingly, they worked no better than the English banks.

Let me take the second part of Professor White's syllogism first. What is his basis for the conclusion that the Scottish banks worked significantly better than the English banks? Remarkably, there is not a word that they were significantly less inflationary; indeed, there is no attempt to present any data on the money supply, the extent of bank credit, or prices in England and Scotland during this period. White does say that the Scottish banks were marked by greater "cyclical stability," but it turns out that he does not mean that they generated less inflation in booms or less contraction during recessions. By cyclical stability, White means solely that the extent of Scottish bank failures was less than in England. Indeed, this is Professor White's *sole* evidence that Scottish banking worked better than English.

But why should lack of bank failure be a sign of superiority? On the contrary, a dearth of bank failure should rather be treated with suspicion, as witness the drop of bank failures in the United States since the advent of the FDIC. It might indeed mean that the *banks* are doing better, but at the expense of society and the economy faring *worse*. Bank failures are a healthy weapon by which the market keeps bank credit inflation in check; an absence of failure might well mean that that check is doing poorly and that inflation of money and credit is all the more rampant. In any case, a lower rate of bank failure can scarcely be accepted as any sort of evidence for the superiority of a banking system.

In fact, in a book that Professor White acknowledges to be the definitive history of Scottish banking, Professor Sydney Checkland points out that Scottish banks expanded and contracted credit in a lengthy series of boom-bust cycles, in particular in the years surrounding the crises of the 1760s, 1772, 1778, 1793, 1797, 1802–03, 1809–10, 1810–11, 1818–19, 1825–26, 1836–37, 1839, and 1845–47.[5] Apparently, the Scottish banks escaped none of the destabilizing, cycle-generating behavior of their English cousins.

Even if free, then, the Scottish banking system worked no better than central-bank-dominated English banking. But I turn now to Professor White's central thesis on Scottish banking: that it, in contrast to English banking, was free and independent, with each bank resting on its own specie bottom. For Scottish banking to be "free," its banks would have to be independent of central banking, with each redeeming its notes and deposits on demand

in its own reserves of gold.

From the beginning, there is one embarrassing and evident fact that Professor White has to cope with: that "free" Scottish banks suspended specie payment when England did, in 1797, and, like England, maintained that suspension until 1821. Free banks are not supposed to be able to, or want to, suspend specie payment, thereby violating the property rights of their depositors and noteholders, while they themselves are permitted to continue in business and force payment upon *their* debtors.

White professes to be puzzled at this strange action of the Scottish banks. Why, he asks, did they not "remain tied to specie and let their currency float against the Bank of England note?" His puzzlement would vanish if he acknowledged an evident answer: that Scottish banks were *not* free, that they were in no position to pay in specie, and that they pyramided credit on top of the Bank of England.[6] Indeed, the Scottish banks' eagerness for suspension of their contractual obligations to pay in specie might be related to the fact, acknowledged by White, that specie reserves held by the Scottish banks had averaged from 10 to 20 percent in the second half of the eighteenth century, but then had dropped sharply to a range of less than 1 to 3 percent in the first half of the nineteenth. Instead of attributing this scandalous drop to "lower costs of obtaining specie on short notice" or "lower risk of substantial specie outflows," White might realize that suspension meant that the banks would not have to worry very much about specie at all.[7]

Professor Checkland, indeed, presents a far more complete and very different account of the suspension crisis. It began, not in 1797, but four years earlier, in the banking panic that struck on the advent of the war with France. Representatives of two leading Scottish banks immediately went to London, pleading for government intervention to bail them out. The British government promptly complied, issuing Treasury bills to "basically sound" banks, of which £400,000 went to Scotland. This bailout, added to the knowledge that the government stood ready to do more, allayed the banking panic.

When the Scottish banks followed the Bank of England in suspending specie payments in 1797, White correctly notes that the suspension was illegal under Scottish law, adding that it was "curious" that their actions were not challenged in court. Not so curious, if we realize that the suspension obviously had the British government's tacit consent. Emboldened by the suspension, and by the legality of bank issue of notes under £1

after 1800, a swarm of new banks entered the field in Scotland, and Checkland informs us that the circulation of bank paper in Scotland doubled from 1793 to 1803.

Before the Scottish banks suspended payment, all Scottish bank offices were crowded with depositors demanding gold and small-note holders demanding silver in payment. They were treated with contempt and loathing by the bankers, who denounced them as the "lowest and most ignorant classes" of society, presumably for the high crime of wanting their money out of the shaky and inherently bankrupt banking system. Not only the bankers, but even elite merchants from Edinburgh and throughout Scotland complained, in 1764, of "obscure people" demanding cash from the banks, which they then had the effrontery to send to London and profit from the rate of exchange.[8] Particularly interesting, for more than just the twenty-four years of the British suspension, was the reason the Scottish banks gave for turning to suspension of specie payments. As Checkland summed up, the Scottish banks were "most gravely threatened, for the inhibitions against demanding gold, so carefully nurtured in the customers of Scottish banks, was rapidly breaking down."[9]

Now I come to the nub: that, as a general rule, and not just during the official suspension period, the Scottish banks redeemed in specie *in name only*; that, in substance, depositors and note holders generally could not redeem the banks' liabilities in specie. The reason that the Scottish banks could afford to be outrageously inflationary, i.e. keep their specie reserves at a minimum, is that, in practice, they did not really have to pay.

Thus, Professor Checkland notes that, long before the official suspension, "requests for specie [from the Scottish banks] met with disapproval and almost with charges of disloyalty." And again:

> The Scottish system was one of continuous partial suspension of specie payments. No one really expected to be able to enter a Scots bank . . . with a large holding of notes and receive the equivalent immediately in gold or silver. They expected, rather, an argument, or even a rebuff. At best they would get a little specie and perhaps bills on London. If they made serious trouble, the matter would be noted and they would find the obtaining of credit more difficult in future.[10]

At one point, during the 1750s, a bank war was waged between a cartel of Glasgow banks, which habitually redeemed in London bills rather than specie, and the banks in Edinburgh. The Edinburgh banks set up a private Glasgow banker, Archibald Trotter, with a supply of notes on Glasgow banks, and Trotter demanded that the banks of his city redeem them, as promised, in specie. The Glasgow banks delayed and dragged their feet, until Trotter was forced to file a law suit for damages for "vexatious delay" in honoring his claims. Finally, after four years in court, Trotter won a nominal victory, but could not get the law to force the Glasgow banks to pay up. *A fortiori*, of course, the banks were not shut down or their assets liquidated to pay their wilfully unpaid debts.

As we have seen, the Scottish law of 1765, providing for summary execution of unredeemed bank notes, remained largely a dead letter. Professor Checkland concludes that "this legally impermissible limitation of convertibility, though never mentioned to public inquiries, contributed greatly to Scottish banking success."[11] No doubt. Of one thing we can be certain: this condition definitely contributed to the paucity of bank failures in Scotland.

The less-than-noble tradition of nonredeemability in Scottish banks continued, unsurprisingly, after Britain resumed specie payments in 1821. As the distinguished economic historian Frank W. Fetter put it, writing about Scotland:

> Even after the resumption of payments in 1821 little coin had circulated; and to a large degree there was a tradition, almost with the force of law, that banks should not be required to redeem their notes in coin. Redemption in London drafts was the usual form of paying noteholders. There was a core of truth in the remark of an anonymous pamphleteer [writing in 1826] "Any southern fool [from south of the Scottish—English border] who had the temerity to ask for a hundred sovereigns, might, if his nerves supported him through the cross examination at the bank counter, think himself in luck to be hunted only to the border."[12]

If gold and silver were scarcely important sources of reserves or of grounding for Scottish bank liabilities, what was? Each bank in Scotland stood not on its own bottom, but on the very source of aid and comfort dear to its English cousins—the Bank

of England. As Checkland declares: “the principal and ultimate source of liquidity [of the Scottish banks] lay in London, and, in particular, in the Bank of England.”[13]

I conclude that the Scottish banks, in the eighteenth and first half of the nineteenth centuries, were neither free nor superior, and that the thesis to the contrary, recently revived by Professor White, is but a snare and a delusion.

The Free-Banking Theorists Reconsidered

The bulk of *Free Banking in Britain* is taken up, not with a description or analysis of Scottish banking, but with analyzing the free-banking controversies in the famous monetary debates of the two decades leading up to Peel’s Act of 1844. The *locus classicus* of discussion of free versus central banking in Europe is the excellent work by Vera C. Smith, *The Rationale of Central Banking*.[14] While Professor White makes a contribution by dealing in somewhat more depth with the British controversialists of the era, he unfortunately takes a giant step backward from Miss Smith in his basic interpretation of the debate. Miss Smith realized that the currency school theorists were hard-money men who saw the evils of bank credit inflation and who tried to eliminate them so that the money supply would as far as possible be equivalent to the commodity standard, gold or silver. On the other hand, she saw that the banking school theorists were inflationists who favored bank credit expansion in accordance with the “needs of trade.” More importantly, Miss Smith saw that for both schools of thought, free banking and central banking were contrasting means to arrive at their different goals. As a result, she analyzes her monetary writers according to an illuminating 2 x 2 grid, with “currency school” and “banking school” on one side and “free banking” and “central banking” on the other.

In *Free Banking in Britain*, on the other hand, Professor White retreats from this important insight, misconceiving and distorting the entire analysis by separating the theorists and writers into three distinct camps, the currency school, banking school, and free-banking school. By doing so, he lumps together analysis and policy conclusions, and he conflates two very distinct schools of free bankers: (1) those who wanted free banking in order to promote monetary inflation and cheap credit and (2) those who, on the contrary, wanted free banking in order to arrive at hard, near-100 percent specie money. The currency school and

banking school are basically lumped by White into one group: the pro—central-banking faction. Of the two, White is particularly critical of the currency school, which supposedly all wanted central banks to levy "arbitrary" restrictions on commercial banks. While White disagrees with the pro-central-banking aspects of the banking school, he is clearly sympathetic with their desire to inflate bank credit to supply the "needs of trade." In that way, White ignores the substantial minority of currency school theorists who preferred free banking to central bank control as a way of achieving 100 percent specie money. In addition, he misunderstands the nature of the inner struggles to find a correct monetary position by laissez-faire advocates, and he ignores the vital differences between the two wings of free bankers.

On the currency school, it is true that most currency men believed in 100 percent reserves issued either by a central bank monopoly of note issue or by an outright state bank monopoly. But, as Smith pointed out, the aim of the currency men was to arrive at a money supply equivalent to the genuine free market money of a pure specie commodity (gold or silver). And furthermore, since currency men tended to be laissez-faire advocates distrustful of state action, a substantial minority advocated free banking as a better political alternative for reaching the desired 100 percent gold money than trusting in the benevolence of the state. As Smith notes, Ludwig von Mises was one of those believing that free banking in practice would approximate a 100 percent gold or silver money. Free banking and 100 percent metallic money advocates in the nineteenth century included Henri Cernuschi and Victor Modeste in France, and Otto Hübner in Germany.[15] Mises' approach was very similar to that of Otto Hübner, a leader of the German Free Trade Party. In his multivolume work, *Die Banken* (1854), Hübner states that his ideal preference would have been a state-run monopoly 100 percent specie reserve bank, along the lines of the old Banks of Amsterdam and Hamburg. But the state cannot be trusted. To quote Vera Smith's paraphrase of Hübner's position:

> If it were true that the State could be trusted always only to issue notes to the amount of its specie holdings, a State-controlled note issue would be the best system, but as things were, a far nearer approach to the ideal system was to be expected from free banks, who for reasons of self-interest

would aim at the fulfilment of their obligations.[16]

Henri Cernuschi desired 100 percent specie money. He declared that the important question was not monopoly note issue versus free banking, but whether or not bank notes should be issued at all. His answer was no, since "they had the effect of despoiling the holders of metallic money by depreciating its value." All bank notes, all fiduciary media, should be eliminated. An important follower of Cernuschi's in France was Victor Modeste, whom Vera Smith erroneously dismisses as having "the same attitude" as Cernuschi's. Actually, Modeste did not adopt the free-banking policy conclusion of his mentor. In the first place, Modeste was a dedicated libertarian who frankly declared that the state is "the master . . . the obstacle, the enemy" and whose announced goal was to replace all government by "self-government." Like Cernuschi and Mises, Modeste agreed that freely competitive banking was far better than administrative state control or regulation of banks. And like Mises a half-century later (and like most American currency men at the time), Modeste realized that demand deposits, like bank notes beyond 100 percent reserves, are illicit, fraudulent, and inflationary as well as being generators of the business cycle. Demand deposits, like bank notes, constitute "false money." But Modeste's policy conclusion was different. His answer was to point out that "false" demand liabilities that pretend to be but cannot be converted into gold are in reality tantamount to fraud and embezzlement. Modeste concludes that false titles and values, such as false claims to gold under fractional-reserve banking, are at all times

> equivalent to theft; that theft in all its forms everywhere deserves its penalties . . ., that every bank administrator . . . must be warned that to pass as value where there is no value . . . to subscribe to an engagement that cannot be accomplished . . . are criminal acts which should be relieved under the criminal law.[17]

The answer to fraud, then, is not administrative regulation, but prohibition of tort and fraud under general law.[18]

For Great Britain, an important case of currency men not discussed by Smith are the famous laissez-faire advocates of the Manchester school. Hobbled by his artificial categories, Professor White can only react to them in total confusion. Thus, John Benjamin Smith, the powerful president of the Manchester

Chamber of Commerce, reported to the chamber in 1840 that the economic and financial crisis of 1839 had been caused by the Bank of England's contraction, following inexorably upon its own earlier "undue expansion of the currency." Simply because Smith condemned Bank of England policy, White chides Marion Daugherty for putting J.B. Smith into the ranks of the currency school rather than the free bankers. But then, only four pages later, White laments the parliamentary testimony during the same year of Smith and Richard Cobden as revealing "the developing tendency for adherents of laissez-faire, who wished to free the currency from discretionary management, to look not to free banking but to restricting the right of issue to a rigidly rule-bound state bank as the solution." So what were Smith, Cobden, and the Manchesterites? Were they free bankers (p. 71) or—in the same year—currency men (p. 75), or what? But how could they have been currency men, since White has defined the latter as people who want total power to accrue to the Bank of England? White avoids this question by simply not listing Smith or Cobden in his table of currency-banking—free-banking school adherents (p. 135).[19]

White might have avoided confusion if he had not, as in the case of Scottish banking, apparently failed to consult Frank W. Fetter's *Development of British Monetary Orthodoxy*, although the book is indeed listed in his bibliography. Fetter notes that Smith, in his parliamentary testimony, clearly enunciates the currency principle. Smith, he points out, was concerned about the fluctuations of the commercial banks as well as of the Bank of England and flatly declared his own currency school objective: "it is desirable in any change in our existing system to approximate as nearly as possible to the operation of a metallic currency; it is desirable also to divest the plan of all mystery, and to make it so plain and simple that it may be easily understood by all."[20] Smith's proposed solution was the scheme derived from Ricardo, of creating a national bank for purposes of issuing 100 percent reserve bank notes.

The same course was taken, in his testimony, by Richard Cobden, the great leader of the Manchester laissez-faire movement. Attacking the Bank of England and any idea of discretionary control over the currency, whether by the Bank or by private commercial banks, Cobden declared:

> I hold all idea of regulating the currency to be an absurdity; the very terms of regulating the currency

> and managing the currency I look upon to be an absurdity; the currency should regulate itself; it must be regulated by the trade and commerce of the world; I would neither allow the Bank of England nor any private banks to have what is called the management of the currency. . . . I would never contemplate any remedial measure, which left it to the discretion of individuals to regulate the amount of currency by any principle or standard whatever. [21]

In short, the fervent desire of Richard Cobden, along with other Manchesterians and most other currency school writers, was to remove government or bank manipulation of money altogether and to leave its workings solely to the free-market forces of gold or silver. Whether or not Cobden's proposed solution of a state-run bank was the proper one, no one can deny the fervor of his laissez-faire views or his desire to apply them to the difficult and complex case of money and banking.

Let me now return to Professor White's cherished free-banking writers and to his unfortunate conflation of the very different hard-money and soft-money camps. The currency school and the free bankers were both launched upon the advent of the severe financial crisis of 1825, which, as usual, was preceded by a boom fueled by bank credit. The crisis brought the widespread realization that the simple return to the gold standard, as effected in 1821, was not enough and that something more had to be done to eliminate the instability of the banking system.[22]

Among four leading free-banking advocates of the 1820s and early 1830s—Robert Mushet, Sir John Sinclair, Sir Henry Brooke Parnell, and George Poulett Scrope—Professor White sees little difference. And yet they were split into two very different camps. The earlier writers, Mushet and Parnell, were hard money men. Mushet, a long-time pro—gold-standard "bullionist" and clerk at the Royal Mint, set forth a currency-principle-type of business cycle theory in 1826, pointing out that the Bank of England had generated an inflationary boom, which later had to be reversed into a contractionary depression. Mushet's aim was to arrive at the equivalent of a purely metallic currency, but he believed that free rather than central banking was a better way to achieve it. Once again, White's treatment muddies the waters. While admitting that Mushet took a currency school approach toward

purely metallic money, White still chooses to criticize Daugherty for classifying Mushet with the currency school, since he opted for a free- rather than a central-banking method to achieve currency goals (p. 62 n). The more prominent Parnell was also a veteran bullionist writer and Member of Parliament, who took a position very similar to Mushet's.[23]

Sir John Sinclair and George Poulett Scrope, however, were horses of a very different color. White admits that Sinclair was not a pure free-banking man, but he characteristically underplays Sinclair's fervent lifelong views as being concerned with "preventing deflation" and calls Sinclair a "tireless promoter of agricultural interests" (p. 60 and 60 n). In truth, Sinclair, a Scottish nobleman and agriculturist, was, all his life, a determined and fanatical zealot on behalf of monetary inflation and government spending. As soon as the pro-gold-standard, anti—fiat paper Bullion Committee Report was issued in 1810, Sir John wrote to Prime Minister Spencer Perceval urging the government to reprint his own three-volume proinflationist work, *History of the Public Revenues of the British* (1785–90), as part of the vital task of rebutting the Bullion Committee. "You know my sentiments regarding the importance of paper Circulation," Sinclair wrote the Prime Minister, "which is in fact the basis of our prosperity." In fact, Sinclair's *Observations on the Report of the Bullion Committee*, published in September 1810, was the very first of many pamphlet attacks on the Bullion Report, most of them orchestrated by the British government.

When Britain went back to the gold standard in 1819–21, Sinclair, joining with the proinflationist and pro-fiat money Birmingham school, was one of the most energetic and bitter critics of resumption of specie payments. It is no wonder that Frank Fetter should depict Sinclair's lifelong enthusiasm: "that more money was the answer to all economic problems."[24] It is also no wonder that Sinclair should have admired the Scottish "free" banking system and opposed the currency principle. But one would have thought that Professor White would feel uncomfortable with Sinclair as his ally.

Another of Professor White's dubious heroes is George Poulett Scrope. While Scrope is also characterized as not a pure or mainstream free-banking man, his analysis is taken very seriously by White and is discussed numerous times. And he is mentioned prominently in White's table as a leading free banker. Scrope's inveterate inflationary bent is handled most gently by White: "Like Sinclair, he [Scrope] placed higher priority on

combating deflation" (p. 82 n). In fact, Scrope not only battled against the return to the gold standard in 1819–21, he was also the leading theorist of the fortunately small band of writers in Britain who were ardent underconsumptionists and proto-Keynesians. In his *Principles of Political Economy* (written in 1833, the same year as his major pro—free-banking tract), Scrope declared that any decline in consumption in favor of a "general increase in the propensity to save" would necessarily and "proportionately diminish the demand as compared with the supply, and occasion a *general glut*."

Let us now turn to the final stage of the currency school—banking school—free-banking controversy. The financial crisis of 1838–39 touched off an intensified desire to reform the banking system, and the controversy culminated with the Peel Acts of 1844 and 1845.

Take, for example, one of Professor White's major heroes, James William Gilbart. Every historian except White has included Gilbart among the members of the banking school. Why does not Professor White? Despite White's assurance, for example, that the free-banking school was even more fervent than the currency school in attributing the cause of the business cycle to monetary inflation, Gilbart held, typically of the banking school, that bank notes simply expand and contract according to the "wants of trade" and that, therefore, issue of such notes, being matched by the production of goods, could not raise prices. Furthermore, the active causal flow goes from "trade" to prices to the "requirement" for more bank notes to flow into circulation. Thus said Gilbart: "If there is an increase of trade without an increase of prices, I consider that more notes will be required to circulate that increased quantity of commodities; if there is an increase of commodities and an increase of prices also, of course, you would require a still greater amount of notes."[25] In short, whether prices rise or not, the supply of money must always increase! Putting aside the question of who the "you" is supposed to be in this quote, this is simply rank inflationism of the banking school variety. In fact, of course no increase of money is "required" in either case. The genuine causal chain is the other way round, from increased bank notes to increased prices, and *also* to increased money value of the goods being produced.

Professor White may not be alive to this distinction because he, too, is a follower of the "needs of trade" (or "wants of trade") rationale for bank credit inflation. White's favorable discussion of

the needs-of-trade doctrine (pp. 122–26) makes clear that he himself is indeed a variant of banking-school inflationist. Unfortunately, White seems to think all this to be consonant with the "Humean-Ricardian" devotion to a purely metallic currency (p. 124). For one thing, White does not seem to realize that David Hume, in contrast to his banking-school friend Adam Smith, believed in 100 percent specie reserve banking.

While Professor White, in the previous quote from Gilbart, cites his Parliamentary testimony in 1841, he *omits* the crucial interchange between Gilbart and Sir Robert Peel. In his testimony, Gilbart declared not only that country bank notes increase solely in response to the wants of trade and, therefore, that they could never be overissued. He *also* claimed—in keeping with the tenets of the banking school—that even the Bank of England could never overissue notes so long as it only discounted commercial loans! So much for Professor White's claims of Gilbart's alleged devotion to free banking! There followed some fascinating and revealing colloquies between Peel and the alleged free banker (i.e., pro-free-banking, pro-gold-standard) James Gilbart. Peel sharply continued his questioning: "Do you think, then, that the legitimate demands of commerce may always be trusted to, as a safe test of the amount of circulation under all circumstances?" To which Gilbart admitted: "I think they may." (Note: nothing was said about exempting the Bank of England from such trust.)

Peel then asked the critical question. The banking school (followed by Professor White) claimed to be devoted to the gold standard, so that the "needs of trade" justification for bank credit would *not* apply to inconvertible fiat currency. But Peel, suspicious of the banking school's devotion to gold, then asked: In the bank restriction [fiat money] days, "do you think that the legitimate demands of commerce constituted a test that might be safely relied upon?" Gilbart evasively replied: "That is a period of which I have no personal knowledge"—a particularly disingenuous reply from a man who had written *The History and Principles of Banking* (1834). Indeed, Gilbart proceeded to throw in the towel on the gold standard: "I think the legitimate demands of commerce, even then, would be a sufficient guide to go by." When Peel pressed Gilbart further on that point, the latter began to back and fill, changing and rechanging his views, finally once more falling back on his lack of personal experience during the period.[26]

Peel was certainly right in being suspicious of the banking

school's devotion to the gold standard—whether or not Professor White was later to reclassify them as free bankers. In addition to Gilbart's revelations, Gilbart's fellow official at the London & Westminster Bank, J.W. Bosanquet, kept urging bank suspensions of specie payment whenever times became difficult. And in his popular tract of 1844, *On the Regulation of Currencies*, John Fullarton—a banker in India by then retired in England and a key leader of the banking school—gave the game away. Wrote Fullarton:

> And, much as I fear I am disgracing myself by the avowal, I have no hesitation in professing my own adhesion to the decried doctrine of the old Bank Directors of 1810, "that so long as a bank issues its notes only on the discount of *good* bills, at not more than sixty days' date, it cannot go wrong in issuing as many as the public will receive from it."[27]

Fullarton was referring, of course, to the old antibullionist position that so long as any bank, even under an inconvertible currency, sticks to short-term real bills, it cannot cause an inflation or a business-cycle boom. It is no wonder that Peel suspected all opponents of the currency principle to be crypto-Birmingham men.[28]

The only distinguished economist to take up the free-banking cause is another one of Professor White's favorites: Samuel Bailey, who had indeed demolished Ricardian value theory in behalf of subjective utility during the 1820s. Now, in the late 1830s and early 1840s, Bailey entered the lists in behalf of free banking. Unfortunately, Bailey was one of the worst offenders in insisting on the absolute passivity of the British country and joint-stock banks as well as in attacking the very idea that there might be something worrisome about changes in the supply of money. By assuring his readers that competitive banking would always provide a "nice adjustment of the currency to the wants of the people," Bailey overlooked the fundamental Ricardian truth that there is never any social value in increasing the supply of money, as well as the insight that bank credit entails a fraudulent issue of warehouse receipts to nonexistent goods.

Finally, Professor White ruefully admits that when it came to the crunch—the Peel Acts of 1844 and 1845 establishing a Bank of England monopoly of note issue and eliminating the "free" banking system of Scotland—his free-banking heroes were

nowhere to be found in opposition. White concedes that their support of Peel's acts was purchased by the grant of cartelization. In short, in exchange for Bank of England monopoly on note issue, the existing English and Scottish banks were "grandfathered" into place; they could keep their existing circulation of notes, while no new competitors were allowed to enter into the lucrative note-issuing business. Thus, White concedes:

> He [Gilbart] was relieved that the [Peel] act did not extinguish the joint-stock banks' right of issue and was frankly pleased with its cartelizing provisions: "Our rights are acknowledged—our privileges are extended—our circulation guaranteed—and we are saved from conflicts with reckless competitors." (p. 79)

Very well. But White avoids asking himself the difficult questions. For example: what kind of a dedicated "free-banking" movement is it that can be so easily bought off by cartel privileges from the state? The answer, which White sidesteps by avoiding the question is precisely the kind of a movement that serves simply as a cloak for the interests of the commercial bankers.

For, with the exception of the older, hard-money free-banking men—such as Mushet (long dead by 1844) and Parnell (who died in the middle of the controversy in 1842)—virtually all of White's free bankers were themselves officials of private commercial banks. Gilbart had been a bank official all his life and had long been manager of the London & Westminster Bank. Bailey was chairman of the Sheffield Banking Company. Consider, for example, the newly founded *Bankers' Magazine*, which White lauds as a crucial organ of free-banking opinion. White laments that a writer in the June 1844 issue of *Bankers' Magazine*, while critical of the currency principle and monopoly issues for the Bank of England, yet approved the Peel Act as a whole for aiding the profits of existing banks by prohibiting all new banks of issue.

And yet, Professor White resists the realization that his entire cherished free-banking movement—at least in its later inflationist "need of trade" manifestation—was simply a special pleading on behalf of the inflationary activities of the commercial banks. Strip away White's conflation of the earlier hard-money free-banking theorists with the later inflationists,

and his treasured free-banking movement turns out to be merely special pleaders for bank chicanery and bank credit inflation.

Review of Lawrence H. White, *Free Banking in Britain: Theory, Experience, and Debate, 1800–1845* (Cambridge University Press, 1984).

[1] On "wonderful" results, see White, *Free Banking*, p. xiii.

[2] Ibid., p. 43.

[3] Most of the White book, indeed, is devoted to another question entirely—a discussion and analysis of free-banking theorists in Britain during the first half of the nineteenth century. I shall deal with that part of his book subsequently.

[4] Murray N. Rothbard, *The Mystery of Banking* (New York: Richardson & Snyder, 1983), pp. 185–87. Also see the report on a forthcoming *Journal of Monetary Economics* article by Milton Friedman and Anna Jacobson Schwartz in *Fortune* (March 31, 1986), p. 163. I did have grave preliminary doubts about his Scottish thesis in an unpublished comment on Professor White's paper in 1981, but unfortunately, these doubts did not make their way into the *Mystery of Banking*.

[5] Sydney G. Checkland, *Scottish Banking: A History, 1695–1973* (Glasgow: Collins, 1975).

[6] In a footnote, Professor White grudgingly hints at this point, while not seeming to realize the grave implications of the facts for his own starry-eyed view of Scottish banking. Note, then, the unacknowledged implications of his hint that London was "Britain's financial centre," that the Scottish banks depended on funds from their correspondent banks and from sales of securities in London, and that Britain was an "optimal currency area." White, *Free Banking*, p. 46 n. 12.

[7] White, *Free Banking*, pp. 43–44, n. 9.

[8] See Charles A. Malcolm, *The Bank of Scotland, 1695–1945* (Edinburgh: R. & R. Clark, n.d.).

[9] Checkland, *Scottish Banking*, p. 221.

[10] Checkland, *Scottish Banking*, pp. 184–85.

[11] Ibid., p. 186.

[12] Frank W. Fetter, *Development of British Monetary Orthodoxy, 1797–1875* (Cambridge, Mass.: Harvard University Press, 1965), p. 122. The anonymous pamphlet was *A Letter to the Right Hon. George Canning* (London, 1826), p. 45. Also see Charles W. Munn, *The Scottish Provincial Banking Companies, 1747–1864* (Edinburgh: John Donald Pubs., 1981), pp. 140ff.

A similar practice was also prevalent at times in the "free-

banking" system in the United States. After the "resumption" of 1817, obstacles and intimidation were often the fate of those who tried to ask for specie for their notes. In 1821, the Philadelphia merchant, economist and state Senator Condy Raguet perceptively wrote to David Ricardo:

> You state in your letter that you find it difficult to comprehend why persons who had a right to demand coin from the Banks in payment of their notes, so long forebore to exercise it. This no doubt appears paradoxical to one who resides in a country where an act of parliament was necessary to protect a bank, but the difficulty is easily solved. The whole of our population are either stockholders of banks or in debt to them. It is not in the *interest* of the first to press the banks and the rest are *afraid*. This is the whole secret. An independent man, who was neither a stockholder or debtor, who would have ventured to compel the banks to do justice, would have been persecuted as an enemy of society. (Quoted in Murray N. Rothbard, *The Panic of 1819: Reactions and Policies*, New York: Columbia University Press, 1962, pp. 10–11)

There is unfortunately no record of Ricardo's side of the correspondence.

[13] Checkland, *Scottish Banking*, p. 432. Also see S.G. Checkland, "Adam Smith and the Bankers," in A. Skinner and T. Wilson, eds., *Essays on Adam Smith* (Oxford, England: Clarendon Press, 1975), pp. 504–23.

[14] Vera C. Smith, *The Rationale of Central Banking* (London: P.S. King & Sons, 1936). This book was a doctoral dissertation under F.A. Hayek at the London School of Economics, for which Miss Smith made use of Hayek's notes on the subject. See Pedro Schwartz, "Central Bank Monopoly in the History of Economic Thought: a Century of Myopia in England," in P. Salin, ed., *Currency Competition and Monetary Union* (The Hague: Martinus Nijhoff, 1984), pp. 124–25.

[15] After quoting favorably Thomas Tooke's famous dictum that "free trade in banking is free trade in swindling," Mises adds:

> However, freedom in the issuance of banknotes would have narrowed down the use of banknotes

> considerably if it had not entirely suppressed it. It was this idea which Cernuschi advanced in the hearings of the French Banking Inquiry on October 24, 1865: "I believe that what is called freedom of banking would result in a total suppression of banknotes in France. I want to give everybody the right to issue banknotes so that nobody should take banknotes any longer." (Ludwig von Mises, *Human Action: A Treatise on Economics*, 3rd rev. ed., Chicago: Henry Regnery, 1966, p. 446)

[16] Smith, *Rationale*, p. 101. Mises, after endorsing the idea of 100 percent reserves to gold of banknotes and demand deposits (the latter unfortunately overlooked by the currency school in Britain), decided against it because of the "drawbacks inherent in every kind of government interference with banking." And again:

> Government interference with the present state of banking affairs could be justified if its aim were to liquidate the unsatisfactory conditions by preventing or at least seriously restricting any further credit expansion. In fact the chief objective of present-day government interference is to intensify further credit expansion. (Mises, *Human Action*, p. 443, 448)

[17] Victor Modeste, "Le Billet des banques d'émission est-il fausse monnaie?" [Are Bank Notes False Money?] *Journal des économistes* 4 (October 1866), pp. 7778 (Translation mine). Also see Henri Cernuschi, *Contre le billet de banque* (1866).

[18] This policy conclusion is completely consistent with Mises' objective: "What is needed to prevent any further credit expansion is to place the banking business under the general rules of commercial and civil laws compelling every individual and firm to fulfill all obligations in full compliance with the terms of the contract." Mises, *Human Action*, p. 443.

For more on fractional-reserve banking as embezzlement, see Rothbard, *Mystery of Banking*, pp. 91–95.

[19] White, *Free Banking*, pp. 71, 75, 135. Also see Marion R. Daugherty, "The Currency-Banking Controversy, Part I," *Southern Economic Journal* 9 (October 1942), p. 147.

[20] Quoted in Fetter, *Development*, p. 176.

[21] Ibid.

[22] One measure of partial reform accomplished by the British government was the outlawing, in 1826, of small-denomination (under £5) bank notes (an edict obeyed by the Bank of England for over a century), which at least insured that the average person would be making most transactions in gold or silver coin. Even Adam Smith, the leading apologist for Scottish "free" banking, had advocated such a measure. But it is instructive to note, in view of Professor White's admiration for Scottish banking, that political pressure by the Scottish Tories gained the Scottish banks an exemption from this measure. The Tory campaign was led by the eminent novelist, Sir Walter Scott. Hailing the campaign, the spokesman for Scottish High Toryism, *Blackwood's Edinburgh Magazine*, published two articles on "The Country Banks and the Bank of England" in 1827–28, in which it wove together two major strains of archinflationism: going off the gold standard and praising the country banks. *Blackwood's* also attacked the Bank of England as overly restrictionist (!), thus helping to inaugurate the legend that the trouble with the bank was that it was too restrictive instead of being itself the major engine of monetary inflation. In contrast, the *Westminster Review*, the spokesman for James Mill's philosophic radicals, scoffed at the Scots for threatening "a civil war in defense of the privilege of being plundered" by the banking system. See Fetter, *Development*, pp. 123–24.

[23] Professor White has performed a valuable service in rescuing Parnell's work from obscurity. Parnell's tract of 1827 was attacked from a more consistent hard-money position by the fiery populist radical, William Cobbett. Cobbett averred that "ever since that hellish compound Paper-money was understood by me, I have wished for the destruction of the accursed thing: I have applauded every measure that tended to produce its destruction, and censured every measure having a tendency to preserve it." He attacked Parnell's pamphlet for defending the actions of the country banks and for praising the Scottish system. In reply, Cobbett denounced the "Scottish monopolists" and proclaimed that "these ravenous Rooks of Scotland . . . have been a pestilence to England for more than two hundred years."

[24] Fetter, *Development*, p. 22. Among his other sins, Sinclair, an indefatigable collector of statistics, in the 1790s published the twenty-one—volume *A Statistical Account of Scotland* and actually introduced the words *statistics* and *statistical* into the English language.

[25] Quoted in White, *Free Banking*, p. 124.

[26] The interchange between Peel and Gilbart may be found in the important article by Boyd Hilton, "Peel: A Reappraisal," *Historical Journal* 22 (September 1979), pp. 593–94. Hilton shows that Peel (far from being the unprincipled opportunist he had usually been portrayed as by historians) was a man of increasingly fixed classical liberal principles, devoted to minimal budgets, free trade, and hard money. Not understanding economics, however, Hilton characteristically brands Peel's questioning of Gilbart as "inept" and sneers at Peel for scoffing at Gilbart's patent dodge of lacking "personal knowledge."

Moreover, not being a classical liberal, Hilton ridicules Sir Robert Peel's alleged inflexible dogmatism on behalf of laissez-faire. It is most unfortunate that White, in his eagerness to censure Peel's attack on inflationary bank credit, praises Hilton's "insightful account of Peel's little-recognized dogmatism on matter of monetary policy" (p. 77 n). Does White also agree with Hilton's denunciation of Peel's "dogmatism" on free trade?

[27] Quoted in Fetter, *Development*, p. 193.

[28] Neither is the example of James Wilson reassuring. Wilson, founding editor of the new journal, *The Economist*, was dedicated to laissez-faire and to the gold standard. He entered the monetary debate quite late, in spring 1845, becoming one of the major leaders of the banking school. Though of all the banking school, Wilson was one of the friendliest to free banking and to the Scottish system, he *also* claimed that the Bank of England could never overissue notes in a convertible monetary system. And though personally devoted to the gold standard, Wilson even made the same damaging concession as Gilbart, though far more clearly and candidly. For, of all the major banking school leaders, Wilson was the only one who stated flatly and clearly that no banks could ever overissue notes if they were backed by short-term, self-liquidating real bills, *even* under an inconvertible fiat standard. See Lloyd Mints, *A History of Banking Theory in Great Britain and the United States* (Chicago: University of Chicago Press, 1945), p. 90.

White's Free-Banking Thesis A Case of Mistaken Identity

Larry J. Sechrest

Lawrence H. White's fascinating work entitled *Tree Banking in Britain: Theory, Experience, and Debate, 1800–1845* has had a not inconsiderable impact upon monetary economists. Everyone seems now to be, at the very least, aware of the issues relevant to the free banking versus central banking controversy. (Of course, White is not alone in his endeavors. See also the recent work of Rolnick and Weber,[1][2][3][4] Rockoff,[5] and Rothbard[6].) Furthermore, White's depiction of the Scottish system between the years 1695 and 1845 appears to have gone unchallenged as to its historical accuracy. This article examines several of White's key assertions, as well as several tangential ones, in light of the available historical documentation. Wherever possible, sources are quoted rather than paraphrased so as to reduce to a minimum any interpretive bias.

What emerges from the process is the realization that—rather than White's model of a laissez-faire system devoid of a central bank, solidly based upon the unquestioned convertibility of notes into specie, with each bank bearing its full liquidity costs by holding its own specie reserves—the Scottish system was *de facto* a central bank system in which individual private banks pyramided their note issues upon the reserves of the three chartered banks, which, in turn, pyramided their issues upon the reserves of the ultimate source of liquidity for the entire British Isles: the Bank of England. In short, White's thesis that the Scots enjoyed free banking fails to be supported by the evidence.

Parenthetically, I would like to point out that I draw these conclusions despite the fact that I am myself an advocate of free banking. White's theoretical model is elegantly stated and, furthermore, workable in the real world. It is simply in trying to fit the Scottish experience to that model that White goes astray.

Convertibility of Notes

First of all, it behooves me to clarify just what is necessary if one

is to have “free banking.” White defines it as “the unrestricted competitive issue of specie-convertible money by unprivileged private banks” (p. ix). Vera C. Smith adds that (1) notes issued by such banks must be redeemable upon demand for gold and (2) such banks should not be able to “call upon the Government or any other such institution for special help in time of need.”[7] It should be, in other words, a “system of ‘each tub on its own bottom’,” to quote White himself (p. 43).

There must be neither—if a given system is to be categorized as free banking—frequent refusals to redeem notes for specie nor regular recourse to a central bank in order to fulfill the bank’s liquidity needs. Those needs should be met via “interbank lending of existing reserves” within the system.[8] Furthermore, notes should (if truly convertible on demand) trade at par with gold coin. Finally, as White claims for the Scottish banks, a free banking system should be conducive to stable economic growth rather than to successions of crises.[9]

Of the numerous citations that follow, the lion’s share goes to the man who has written the definitive history of Scottish banking, Professor S.G. Checkland of the University of Glasgow.[10] Please notice that my reliance upon Checkland is fully consistent with White’s own statements: in *Free Banking in Britain*, White refers to “S.G. Checkland’s authoritative chronicle of the industry” (p. 33), while in personal correspondence, White declares that Checkland “*is, of course, the authority on the facts*.”[11] Other citations will be from Vera C. Smith, Adam Smith, Frank W. Fetter, Ludwig von Mises, and Henry Meulen—all mentioned in White’s book.

Certainly a cornerstone of the Scottish system as White portrays it is the absolute convertibility of bank notes into specie upon demand. Admittedly, before 1765, Scottish banks sometimes failed to redeem on demand because they utilized the “option clause,” which allowed the bankers (at their discretion, not that of the note holder) to delay redemption for six months in exchange for the payment of interest—usually 4–5 percent—on the notes held.[12][13] But what of after 1765, the year in which both the option clause and notes smaller than £1 were declared illegal?

Frank W. Fetter states that: “To a large degree there was a tradition, almost with the force of law, that banks should not be required to redeem their notes in coin. Redemption in London drafts was the usual form of paying noteholders.”[14] Checkland confirms this:

> The Scottish system was one of continuous partial suspension of payments. No one really expected to be able to enter a Scots bank, perhaps especially a public bank [the Bank of Scotland, the Royal Bank and the British Linen Bank were publicly chartered institutions], with a large holding of notes and receive the equivalent immediately in gold or silver. At best they would get a little specie and perhaps bills on London.[15]

Checkland adds that: "Much emphasis was laid on the loyalty of the banks' customers—requests for specie met with disapproval and almost with charges of disloyalty."[16]

Henry Meulen—himself no friend to the gold standard—alleges that the typical Scottish banker "paid notes instead of gold to any depositor who might call, and was thus able to operate with a smaller reserve of gold than would otherwise have been necessary."[17]

Nor are these quotations the only such comments on the issue of convertibility. Meulen[18] and Checkland[19] both make additional comments that do not depart significantly from the statements already cited and that, therefore, will not be quoted here. The unambiguous nature of the foregoing compels one to question seriously White's claim that Scottish bank notes were redeemable in gold upon demand.

If notes were often not readily redeemable in gold coin, then one may fairly ask: why would bank customers be so willing to accept them? Why, in other words, was most Scottish business conducted entirely in terms of bank notes? (That this latter state of affairs was indeed the case is confirmed by Checkland,[20] Vera Smith,[21] and Adam Smith.[22]) The answer is of two levels. (1) The banks, in their quest for profits, sought the greatest possible circulation for their respective notes. To accomplish such circulation, they offered very easy repayment terms to those who had discounted bills of exchange and were willing to accept notes rather than specie.[23] (2) It became accepted practice for merchants who had received said bank notes to either require their employees to accept their wages in those notes rather than coin or to offer higher wages to those employees who were willing to do so.[24]

Notice what is implicit in the preceding: if notes were truly convertible on demand and, therefore, traded at par with specie —as White claims was the case—why were such inducements

necessary? This suggests that notes perhaps did not trade at par. And, indeed, there is evidence that they did not. Adam Smith records that, in regard to transactions involving bills of exchange in the towns of Carlisle and Dumfries, notes traded at 4 percent below par because "at Carlisle, bills were paid in gold and silver; whereas at Dumfries they were paid in Scotch bank notes."[25] Meulen certainly concurs: "There were frequent instances of notes circulating at a discount for months on account of diminution of public confidence in the bank of issue and inability to apply for immediate redemption of the paper in coin."[26] As Mises has stated with characteristic clarity, the only way to prevent money-substitutes such as notes from trading at a discount against money (gold coin in the British case) is to guarantee their prompt and unconditional conversion into money on demand.[27] Conversely, if one witnesses notes trading below par, one can safely conclude that the reason is the failure to redeem them for specie.

Privileged Banks

Recall White's definition of free banking as involving "*unprivileged private* banks" (emphasis is mine). At least one other commentator disagrees with White's claim that such a characteristic was present in the Scottish system. Checkland states categorically that "the three public institutions (Bank of Scotland, Royal Bank, and British Linen Bank) enjoyed limited liability [the private banks and the joint-stock banking companies were all subject to unlimited shareholder liability] and so were in a preferred position relative to all others."[28] Later he notes that "the State had created two public banks [and later added the third] and continued to confirm their preferred position, through their limited liability and through their public identity and perpetual succession."[29] To this can be added the observation that "there was a longstanding government instruction to the officers of the customs to accept only the notes of the chartered banks in payment of duties, and to 'refuse the Notes of every other bank without exception'."[30] Clearly, there were privileges held by the chartered banks that were denied to all others.

Along with these privileges, however, there apparently were attendant responsibilities. The three chartered banks were expected to function somewhat like local reserve banks for the private bankers and the joint-stock banking companies. Notice,

for example, that during the 1797–1821 suspension of specie payments, the large private firm of William Forbes and Co. paid its depositors not with its own notes but with the notes of the public banks.[31] Indeed, "it became the custom of other banks, both private bankers and provincial banking companies, to hold part of their cash in the notes of the public banks, rather than hold cumbersome gold. When there was a demand for coin at crisis times, such banks would pay out such notes, telling their clients to go to the public banks for specie."[32] Fetter clearly confirms this when he states that "Scottish private banks held most of their reserves in the notes and deposits of the chartered banks of Scotland."[33] This practice would, of course, compel the chartered banks to maintain large liquid reserves on behalf of the other banks, this being a key manifestation of the "traditional responsibility of the older chartered banks of Scotland to keep the system in order."[34]

Furthermore, it should be pointed out that the few existing records of the public and private banks do seem to bear out the previously mentioned relationships. The average reserve ratio of specie to demand liabilities for six provincial banking companies was 10 to 20 percent in the late eighteenth century, but dropped to 0.5 to 3.2 percent in the early nineteenth century.[35] By comparison, the average ratio of investments and liquid assets to total assets for the Royal Bank and the Bank of Scotland for the years 1814, 1817, 1819, 1822, 1823, 1825, 1833, and 1838 was 48.4 percent as opposed to 35 percent for the three public banks together in 1802.[36] In other words, as the private banks and provincial banking companies continued to economize on specie by redeeming notes less and less often, the public banks held ever more liquid assets to serve as a cushion for the others. I want to emphasize here that the extant data are quite sketchy, so only the most general of conclusions can be justified; nevertheless, the data do not seem to contradict what one might expect given the foregoing quotes from Checkland and Fetter.

Stability of the System

What of the cyclical stability of the Scottish system? White refers to the "relative mildness of Scottish cycles"[37] and produces a table of bank failures (1809–30) in the English and Scottish systems, respectively, which demonstrates that the percentage of bank failures during that period was greater in England (1.81 percent to 0.40 percent).[38] First of all, I must comment that

that percent difference does not seem tremendously large intuitively even though statistically the percentages are significantly different at the 1 percent confidence level. More importantly, if one reviews the entire "free-banking" period (1765–1845, according to White), the picture changes somewhat dramatically.

White depicts the Ayr Bank failure of 1772 as relatively minor in import, having brought about an increase in money demand in Edinburgh for less than a day, and as an incident that "did not imperil the Scottish banking system as a whole."[39] Checkland sees it a little differently. He maintains that "no less than thirteen Edinburgh private bankers fell with the Ayr Bank, never to rise again."[40] However, Checkland does agree with White that little permanent damage was done to the system as a whole.[41]

The point is that if one looks at the period 1772–1830 in regard to Scottish bank failures, one finds that the inclusion of the 1772 closures as well as the seven failures that occurred between 1773 and 1808 changes White's ratio noticeably.[42] The mean average of the annual Scottish bank failures per thousand banks becomes 13.28, whereas the comparable figure for English banks (1809–30) *is* 14.1 or 18.1—depending on whether one uses Gilbart's or Pressnell's data.[43] But in either case, the failure rates of Scottish and English banks are now not statistically different at the 1 percent confidence level.

It also may be noted that financial crises seemed to hit Scotland very frequently—specifically, in 1762–64, 1772, 1778, 1787, 1793, 1797, 1802–03, 1809–10, 1818–19, 1825–26, 1836–37, and 1839.[44] Further, Checkland's description of the expansionary phases that preceded each "crisis" sounds much like the scenario of credit-induced malinvestment that lies at the heart of the classic Misesian business cycle. Checkland sums it up well when he states: "In principle, it [the Scottish system] should have been capable of stability or, at least, of fairly easy contraction. In reality, it was not."[45] Due, perhaps, to its being established upon the wrong principle?

And how, one may ask, did the Scottish banks extricate themselves from these frequent liquidity crises? Did they, as White claims, solve the problem among themselves via interbank loans?[46] Although such interbank loans do seem to have occurred, the largest and most frequent loans were from that paradigm of central banking, the Bank of England. I will cite but a few of the many examples of such loans. (1) In the crisis of

1793, a total of £404,000 was granted to several Scottish banks. (2) When the Ayr Bank failed in 1772, the first place it sought a loan—for £300,000—was the Bank of England. (After rejecting the Bank of England's terms, the Ayr Bank asked for £50,000 each from the Royal Bank and the Bank of Scotland—and was turned down.) (3) In November 1830, the "Royal Bank negotiated a credit with the Bank of England of £500,000; the Bank of Scotland, one of £200,000."[47]

To confirm that the foregoing were not isolated incidents, please observe the following summary declaration by Checkland: "By 1810, the Bank of England, short of the state itself, was the effective final arbiter of the supply of liquidity, both for England and Scotland."[48] Fetter adds that "it [the Bank of England] was also the holder of the nation's gold reserve. The country and joint-stock banks, and the Scottish and Irish banks, either directly or through the London money market, turned to it in time of crisis."[49] This certainly seems to establish the Bank of England as the lender of last resort for the whole British Isles rather than just for England, as White tends to argue. Furthermore, those who might object that recourse to the London money market does not necessarily imply recourse to a central bank need to refute Checkland's statement that the Bank of England directly controlled both interest rates and the supply of credit in London.[50]

In addressing the issue of how to gain monetary autonomy for Scotland (something White apparently thinks the Scots had throughout the period under consideration), Checkland, who clearly thinks no such autonomy existed, asserts that:

> most important of all, it would be necessary for Scottish banking to hold its own gold reserve . . . conversely, Scottish banking, by placing itself outside the London system, would relieve the Bank of England of the need to hold bullion reserves against Scottish demands for liquidity . . . [yet] a willing Scottish dependence upon London had been apparent from the founding of the Bank of Scotland in 1695 . . . The Scots in expelling their gold by the vigour of their note issue, basing their banking system on the latter, had made themselves ultimately dependent upon London liquidity.[51]

How such circumstances can fail to contradict any "free banking" hypothesis I do not understand.

Further Difficulties

The institutional link between the individual private banks and joint-stock banking companies, on the one hand, and the Bank of England as lender of last resort, on the other hand, seems to have been the three chartered "public" banks—the Royal Bank, the Bank of Scotland, and the British Linen Bank. I have already noted that the nonpublic banks often redeemed their notes and deposits in the notes of the public banks, rather than in specie (i.e., much of the reserves of the nonpublic banks were held in the form of public bank notes). Similarly, "the three chartered banks of Scotland kept their reserves largely in deposits with the Bank of England."[52] And apparently the chartered banks had a ready source of liquidity in the Bank of England, for Checkland says that "the Royal Bank had access to and credits from the Bank of England from 1728, whereas the Bank of Scotland did not gain such facilities until 1791."[53]

This suggests the potential for the pyramiding of an excessive note issue upon inadequate reserves, but it does not establish that such monetary expansion actually took place. Indeed, in the absence of any reliable economic data for Scotland separate from the rest of the kingdom, one could probably never demonstrate either the truth or falsity of such a proposition in a modern quantitative way. Nevertheless, one does have some qualitative evidence: "The Scottish banks had developed so compelling a set of means for getting and keeping their paper in circulation that, in non-crisis times at least, they could provide an extraordinarily high level of liquidity, with accompanying danger."[54] No less an authority than Adam Smith went so far as to say that "the circulation (in Scotland) has frequently been over-stocked with paper money . . . The Bank of England paid very dearly, not only for its own imprudence, but for the much greater imprudence of almost all the Scotch banks."[55]

Meulen asserts that "it transpired that at times when gold was being drained both from Scottish and English banks the Scottish bankers had not restricted their note issue, but had withdrawn gold from the Bank of England to support their credit system."[56] Notice that this directly contradicts the fact that in a true free-banking system, even when a number of banks expand and contract their note issues together, a loss of specie from the system necessitates, *ceteris paribus*, a decrease in the total note issue.[57] Meulen's assertion seems much more in keeping with a central banking system in which there is a single

lender of last resort, but a multiplicity of issuers of notes and demand deposits. This latter is what I believe the Scottish system actually to have been.

Two important means by which "free banks" allegedly compete are the discounting of commercial bills and the payment of interest on deposits. If it were the case that these operations were seriously constrained by law, then one might conclude that a significant characteristic of free banking was absent. That appears to be applicable to Scotland. In 1714, a Usury Law was passed which set an upper limit on interest paid of 5 percent. This law was not changed until nearly the end of "free banking"—1833—at which time, bills of exchange and promissory notes were exempted from its provisions.[58] Checkland declares that "the Usury Law limited competition for deposits"[59] and, indeed, its effect on "any form of advance was seriously prohibitive,"[60] which conclusion is also expressed by Meulen.[61]

Three additional inconsistencies should be noted. Admittedly, they involve tangential issues which are, by themselves, trivial; yet they are perhaps instructive in that they may reveal inadequate research on White's part. White claims that Britain's first bank to ever make public its annual report was the joint-stock Union Bank of Glasgow in 1836.[62] Yet Checkland, in his chapter on banking practices from 1810 to 1850, states that the officers of the public banks and the joint-stock banks were very secretive and that "none of the joint-stock banks printed and circulated their annual reports."[63]

Also, according to White's list of Scottish bank failures (1809–30), there were no failures in 1821.[64] However, Checkland states that in 1821, both the Galloway Bank and the Kilmarnock Banking Company went under.[65]

Finally, White declares that "private bankers in Edinburgh did not issue notes, whereas provincial banks typically were banks of issue."[66] In contrast, Checkland remarks that Edinburgh private bankers did indeed issue notes—although not before the 1760s and not in any great quantity.[67]

Conclusion

This article has examined in some detail the historical evidence regarding Scottish banking in the eighteenth and early nineteenth centuries. The focus has been upon the following question: is Lawrence White's contention that this period was

one of free banking supported by other commentators? The unavoidable answer—and one that I accept with regret—is that the evidence does not support White on several key points.

First and foremost, the Scottish banks do not seem to have actually practiced note convertibility (into specie). They also had frequent recourse to the Bank of England as their primary source of liquidity in time of crisis. The three chartered banks possessed both privileges and responsibilities that were not possessed by the private banks and the joint-stock banking companies. Overall, the system does not appear to have been very productive of stable economic conditions: expansionary, inflationary periods were followed with rapidity by contractionary, deflationary periods. The source of such fluctuations seems to have been largely the Bank of England, an observation consistent with the 1810 Bullion Committee's report that "the circulation of the Bank of England had an important influence on the circulation of the country banks and of the Scottish banks."[68] (As evidence of this, one may notice that, for example, in 1818, the Bank of England restricted both money and credit, and prices in Glasgow plummeted—sugar, grain and timber by about 33 percent, cotton by 50 percent—while commercial bankruptcies in Glasgow and Aberdeen hit new highs.[69])

But was this a straightforward central-bank system with one issuer of notes? Clearly not. There was indeed competition in note issuance as well as some competition (limited due to the Usury Law) in advances and deposit issuance. Yet there was, unmistakably, a single lender of last resort—a single ultimate source of liquidity. Thus, there also was some pyramiding of notes upon inadequate specie reserves. This was a hybrid system: part free banking, part central banking, possessing both the virtues of the former and the vices of the latter.

The author is indebted to Murray N. Rothbard for the suggestion that this line of inquiry might prove productive.

Review of Lawrence H. White, *Free Banking in Britain: Theory, Experience, and Debate, 1800–1845* (Cambridge, Eng.: Cambridge University Press, 1984).

[1] Rolnick, Arthur J., and Weber, Warren E. "The Free Banking Era: New Evidence on Laissez-Faire Banking." Federal Reserve Bank of Minneapolis Research Department Staff Report 80, 1982.

[2] ———. "Free Banking, Wildcat Banking, and Shin-

plasters." *Federal Reserve Bank of Minneapolis Quarterly Review* 6 (Fall): 10–19, 1982.

[3] ———. "Explaining the Demand for Free Bank Notes." Federal Reserve Bank of Minneapolis Research Department Staff Report 97, 1985.

[4] ———. "Inherent Instability in Banking: The Free Banking Experience." *Cato Journal* 5, no. 3: 877–90.

[5] Rockoff, Hugh. "The Free Banking Era: A Re-examination." *Journal of Money, Credit, and Banking* 6: 141–67, 1974.

[6] Rothbard, Murray N. *The Mystery of Banking*. New York: Richardson and Snyder, 1983.

[7] Smith, Vera C. *The Rationale of Central Banking*. London: P.S. King, 1936, p. 149.

[8] White, Lawrence H. *Free Banking in Britain: Theory, Experience, and Debate, 1800–1845*. Cambridge, England: Cambridge University Press, 1984, p. 145.

[9] White, p. 8, 24, 44–49.

[10] Checkland, S.G. *Scottish Banking: A History, 1695–1973*. Glasgow: Collins, 1975.

[11] Letter dated April 30, 1986; quoted with the permission of Lawrence H. White.

[12] White, pp. 26, 29–30.

[13] Checkland, pp. 67, 82, 121.

[14] Fetter, Frank W. *Development of British Monetary Orthodoxy, 1797–1875*. Fairfield, N.J.: Augustus Kelley, 1965, p. 122.

[15] Checkland, p. 185.

[16] Checkland, p. 184.

[17] Meulen, Henry. *Free Banking*. London: Macmillan, 1934, p. 136.

[18] Meulen, p. 129.

[19] Checkland, pp. 186, 222, 438.

[20] Checkland, pp. 185, 236, 434.

[21] Vera C. Smith, p. 22.

[22] Smith, Adam. *An Inquiry into the Nature and Causes of the Wealth of Nations*. New York: Modern Library, 1937, p. 281.

[23] Adam Smith, p. 283.

[24] Meulen, p. 81.

[25] Adam Smith, p. 310.

[26] Meulen, p. 129.

[27] Mises, Ludwig von. *The Theory of Money and Credit*. Irvington-on-Hudson, N.Y.: Foundation for Economic Education,

1971, pp. 320–21.

[28] Checkland, p. 235.
[29] Checkland, p. 275.
[30] Checkland, p. 186.
[31] Checkland, p. 222.
[32] Checkland, p. 186.
[33] Fetter, p. 34.
[34] Checkland, pp. 353, 360, 450–51.
[35] White, footnote p. 43.
[36] Checkland, pp. 240, 740, 741.
[37] White, p. 44.
[38] White, pp. 48–49.
[39] White, p. 32.
[40] Checkland, p. 132.
[41] Checkland, p. 133–34.
[42] Checkland, pp. 177–78.
[43] White, p. 48.
[44] Checkland, pp. 213–14, 403.
[45] Checkland, p. 214.
[46] White, p. 45.
[47] Checkland, pp. 131, 219, 410.
[48] Checkland, p. 276.
[49] Fetter, p. 152.
[50] Checkland, p. 447.
[51] Checkland, pp. 447–48.
[52] Fetter, p. 34.
[53] Checkland, p. 76.
[54] Checkland, p. 236.
[55] Adam Smith, pp. 286, 288.
[56] Meulen, p. 141.
[57] White, pp. 17–18.
[58] Checkland, pp. 192, 443.
[59] Checkland, p. 432.
[60] Checkland, p. 192.
[61] Meulen, p. 92.
[62] White, p. 36.
[63] Checkland, p. 390.
[64] White, p. 48.
[65] Checkland, p. 406.
[66] White, p. 33.
[67] Checkland, p. 105.
[68] Quoted in Fetter, p. 50.
[69] Checkland, p. 405.

A Critique of *What Do Unions Do?*

Morgan Reynolds

Professors Freeman and Medoff have created quite a stir with *What Do Unions Do?*—the first substantial pro-union book by economists in decades. The book has drawn an extraordinary amount of (mostly favorable) attention, with articles in magazines such as *Business Week* and *Fortune*, a full-scale symposium in *Industrial and Labor Relations Review*, and coverage in many academic journals. All the attention, in my view, says more about what articulate opinion wants to hear than what is true.

There always has been abundant pro-union writing in the academic community, but economic analysis and many economists continued to stand in the way of the complete celebration of unionism.[1] Freeman and Medoff do not frontally attack the economics of trade unionism, although the book is the centerpiece of the Harvard school's campaign to neutralize the traditional monopoly/cartel analysis of unions. An accurate subtitle for the book would be *The Case for Worker Collectives*.

The case is weak. Freeman and Medoff (F-M) offer no coherent theory, integrated with general economic theory, to displace the core theory. Instead, they acknowledge that "most economic studies, implicitly or explicitly, have judged unions as being a negative force in society" (p. 4). This admission gives an appearance of balance and accommodates the fact that many economists perceive the similarity between labor combinations and other producer groups who try to raise their prices by restricting access to markets.

Given the obvious validity of the economic model, union apologists must shift the ground of the debate. F-M claim that there is a "shortage of statistical evidence concerning what unions do beyond raising wages that set the stage for our research agenda" (p. 4). My unsympathetic translation is: set economic reasoning aside; number crunching from Harvard will deliver the truth. This stretches credulity beyond the breaking point for most economists, much less Austrian economists.[2]

Instead of rigorous theory, F-M give us speculation about

how the voice/response face of unions can induce better management and greater productivity within unionized enterprises by reducing labor turnover, enhancing worker morale and cooperation, negotiating "more efficient" workplace characteristics, resolving grievances, and pressuring management into stricter efficiency. This thin porridge follows Albert Hirschman's book, *Exit, Voice, and Loyalty*, in identifying two mechanisms of adjustment: exit (the classic market mechanism of mobility) and voice (discussion of problems). To the Harvard professors, unions basically are agents of collective voice rather than rent- and power-seekers: "In modern industrial economies, and particularly in large enterprises, a trade union is the vehicle for collective voice—that is, for providing workers as a group with a means of communicating with management" (p. 8). This version of unionism has an eerie parallel: Valery Chalidze, editor of *Kronika Press*, a periodical of Soviet dissidents, says that Soviet propaganda maintains that "the individual has no need for freedom of speech, it stresses instead expression of the collective will" (*Wall Street Journal*, 7 January 1980, p. 13).

What Do Unions Do? is not wrong about everything—it definitely contains some useful information. But the book is parochial: it ignores public-choice theory, property-rights theory and law, economics, and related fields of economic inquiry; it relies on Harvard-connected empirical studies; and it ignores foreign experience with labor unions, especially Great Britain's. Most importantly, the book is misleading or wrong about the important things. There are numerous sins of omission and commission.

Their research may appear sophisticated and far-reaching to some readers, but F-M's main contentions can be easily summarized in four statements:

1. A trade union is basically a vehicle for collective voice—a means of communication at work and for all labor in the political arena.
2. Unionism on net probably raises productivity.
3. Unions promote economic equality by reducing wage inequality and lowering profits.
4. Unions are democratic, noncorrupt organizations.

F-M conclude that the positive effects of voice/response outweigh the negative elements of monopoly and that "unions do much social good" (p. 250).

To many economists and businesspeople, I suspect, these

claims appear fantastic and absurd on their face. I have tried to refute them in *Power and Privilege* (pp. 77–91) and in two papers listed in the references, as have other economists. Instead of rehashing those discussions, I propose to glide through *What Do Unions Do?*, chapter by chapter, citing deficiencies.

Freeman and Medoff boldly title chapter 1 "A New Portrait of U.S. Unionism." *New* always promises a lot but seldom delivers. *What Do Unions Do?* is mostly old ideas recast in terms such as *collective voice* and fleshed out with recent statistical results. The old ideas boiled down to this: (1) Employees and employers are natural antagonists and employers have a powerful advantage over employees (labor monopsony). (2) The state should promote unions and the practices of collective bargaining to offset this inequality (i.e., promote bilateral monopoly). That is Freeman and Medoff's basic story, though not put so succinctly. For example, in the last chapter, "Conclusion and Implications," F-M say, "We believe that steps should be taken to limit the power of management to oppose unionization. . . . We are convinced that current trends have brought the union density below the optimal level. . . . [Union and nonunion firms] limit management's power over workers."

Chapter 1 is an overview and it asserts that unions improve productivity (!?) partly because they "pressure management to be more efficient in its operation" (p. 3) and "management can respond to unionism in more creative ways" (p. 11). This proposition supports P.T. Bauer's comment that "in economics we have sunk to such depths that statement of the obvious has become the first duty of thoughtful people" (p. 142). Ignoring the restrictive work practices of labor unions, F-M implicitly rely on Leibenstein's erroneous X-inefficiency theory (see Stigler), which, in turn, resembles the old "shock" theory of the Machlup—Lester debate in the late 1940s. W.H. Hutt soundly disposed of the shock theory of improvement by pointing out that if adversity stimulates managerial imagination, enterprise, and effort more than incremental prosperity, it would be wise for government to impose burdens on any sector they wished to foster—taxing them to give them a jolt and thereby causing them to flourish.

On union power, F-M say, "Most, if not all, unions have monopoly power, which they can use to raise wages above competitive levels" (p. 6). The authors, however, fail to point out the source of this undefined power to raise labor prices. The book shares this failing with most pro-union writing. Union power rests on legal privilege and immunities, both by statute

and tacit nonenforcement. State support allows worker cartels to use coercive threats and initiate violence in ways denied to others. A century of intellectual effort sold the idea that the noble ends of unionists justify their means and that allowing unions wide compass to use their tactics helps "labor." As Mises said in 1922, "The long and short of trade union rights is in fact the right to proceed against the strike-breaker with primitive violence" (p. 435). These truths make F-M statements such as "the wages obtained by unions must be viewed as the joint responsibility of management and labor" (p. 6) disingenuous.

F-M relate that unionized "workers" usually report themselves less satisfied with their jobs than nonunion employees: "Unionists are especially dissatisfied with their work conditions and their relations with supervisors." F-M explain, "unions galvanize worker discontent in order to make a strong case in negotiations with management. To be effective, voice must be heard" (p. 21). Certainly, the adversarial mentality and politicization of the workplace matter, but two other factors matter: in view of the excess labor supply available at union prices, firms demand more effort and output ("speed-ups"), and unionized firms also lack the flexibility to equalize the marginal returns to all forms of compensation and effort by all types of labor. Firms in competitive labor markets are relatively free to make these adjustments, and the market disciplines them to accommodate worker preferences for wage and nonwage conditions.

Chapter 2 discusses the union membership statistics and other institutional facts. Oddly enough, F-M seem to believe that competition in the labor market is the natural condition if monopoly unionism disappears:

> When a market is national or international, with output produced in one plant competing with that produced in other plants, independent bargaining by individual locals would lose unions their monopoly power, as locals would compete for jobs through lower wages. . . . The result would be a reduction in wages to more or less competitive levels. (p. 37)

Oh horrors! Too bad. F-M believe in a muddled way that without monopoly unionism, competitive results generally would obtain rather than monopsony exploitation of labor. But why would competitive markets be destructive? F-M do not tell us why,

which makes their support of unionism and pro-union regulations puzzling. They endorse competition in product markets, so they believe that labor is different. Yet F-M's version of labor's disadvantage does not fit the monopsony model in a straightforward way. Strange.

An erroneous thread through chapter 2 and the rest of the book is F-M's notion that we live in a world of labor against capital, those two great macro abstractions. F-M say, for example, "The principal role of the AFL-CIO is to serve as the voice of labor in the political sphere" (p. 38). We might debate whether the AFL-CIO speaks for all organized labor, but Lane Kirkland certainly does not speak for labor, defined as all who labor for a living in the United States. The U.S. economy has always been predominantly nonunion, 83 percent nonunion as of 1985 and rising. Another example of F-M's bloc thinking: "In short, just as workers organize into unions to enhance their power in both economic and political forums, employers organize into associations for the same purposes" (p. 41).

Chapter 3 on the union wage effect is, for the most part, sensible. They argue that the union wage effect produced a premium of 20 to 30 percent in the 1970s and that givebacks in the 1980s were part of the market correction process. F-M, however, are much too sanguine about the discoordination chronically caused by these pricing failures. F-M also forget the whole question of rent seeking and who suffers the losses from union plunder. I do not believe that F-M exaggerate the size of union wage premiums, though H. Gregg Lewis has an alternative view. He carefully analyzed two hundred studies and concluded that the union-nonunion wage differential was only 1415 percent in the 1970s.

Chapter 4 summarizes F-M's research on fringe benefits. They find that unions drive up fringes by 30 percent, *ceteris paribus* (p. 41). They concede that part of the union effect represents the social cost of monopoly power, but part is a social gain: "at the same labor cost, unionized workers will have a desirable set of benefits" (p. 74). This is simply an implausible, even fantastic, conjecture. F-M claim that there is good reason to expect unions to do a better job of eliciting workers' preferences because of the adversarial relation between employers and employees—"the fact that . . . nonunion employees have an incentive to withhold information about preferences" (p. 71). This argument can be dismissed out of hand—free markets do not produce fearful, helpless employees. The F-M argument fails

to apply in product markets; it also fails to recognize that firms are intermediaries between product and resource markets in which resource suppliers voluntarily cooperate to their mutual advantage, that free markets pressure surviving (low-cost) firms to tailor their compensation mix to suit worker preferences, and that non-union mechanics, loggers, truckers, and dockworkers are not afraid of their bosses. Work opportunities—not entry barriers erected by labor unions—inspire confidence.

Chapter 5 tries to counter the charge that unions are a labor elite, that is, unions advantage high-wage workers and increase economic inequality. F-M claim that their empirical research shows that unionism "tends to be in general a powerful force for equalization of earnings in the economy" (p. 78). This claim is bound to be wrong, but it is not theoretically impossible. F-M argue that union policies of a single rate for the job tend to even up wage rates within unionized plants (at the cost of incentives for individual performance) more than they offset the disequalizing impact of unions elsewhere. H. Gregg Lewis, however, points out that we cannot observe wage dispersion in the absence of monopoly unionism, nor can we statistically infer it from fitted wage equations. W.H. Hutt argues that if competition among workers in different fields had been unrestrained, we would have far more people in the higher-paid kinds of work and far fewer in the low-paid kinds of work. I agree with Lewis and Hutt.

Chapter 6 claims that unionism substantially reduces quits beyond the union wage effect. F-M argue that this phenomenon should be attributed to the "voice" effect. The lower turnover in union jobs supposedly raises GNP about 0.2 to 0.3 percent, just offsetting the static welfare loss in GNP from the monopoly wage effect, estimated via Harberger's procedures. Ironically, economists used to praise resource mobility and flexibility, while F-M now praise union-induced immobility. Econometric results to support the opposite view are available, of course. Jacob Mincer's longitudinal study, for instance, finds that more than half of the union wage premium of over 20 percent is rent, with the remainder a quality adjustment in hiring, and that the union wage-fringe premium completely accounts for the lower quit rates in unionized jobs. Mincer also finds that the seniority wage rates of union jobs reduce employee investment in general training.

Chapter 7 of *What Do Unions Do?* is about adjustment to business cycles. F-M agree with everybody else that unions

reduce wage flexibility and rely on layoffs and unemployment benefits much more than the nonunion sector, though the authors downplay the union—nonunion differences. F-M overlook union inflexibilities as a factor delaying recoordination of markets and the restoration of employment and output. The pricing mechanism, not fiscal or monetary policy, recoordinates.

Chapter 8 discusses the seniority policies of unions. F-M's struggle to make unions look good works very poorly on this issue. The inverted incentives of union rules are nowhere better illustrated than by F-M's observation that one-quarter of union contracts have clauses that allow senior employees to be laid off ahead of junior employees—"layoff vacations." As with other researchers, F-M find that union members' wages do not rise as rapidly with seniority as those for nonunion workers, but that nonwage benefits rise by enough to compensate. The trouble is that the flattening of union wage profiles in human-capital variables such as schooling and experience is inefficient in terms of the lifetime income and substitution effects on work effort.

F-M argue that the inferior metering of rewards to individual productivity in union situations is offset by the gains from reducing the uncertainty of "managerial discretion." Another gain supposedly is the protection of "vulnerable" older workers. This is not economic analysis. If managers are capricious, the logic of free labor markets constantly works to correct it. F-M, by contrast, only offer their faith in union caprice ("rules") to replace company caprice (how widespread?) plus an appeal to emotion about helping the old. F-M conclude that "our best guess is that the rules are, on net, socially beneficial, but we lack the quantitative studies of the various circumstances to reach a clear conclusion" (p. 134). This conclusion plays to the gallery: numbers never speak for themselves.

What about the impact of union seniority rules on minority workers? No problem, F-M claim. Unions again are on the side of the angels because black employees are nearly as senior as white employees and seniority clauses protect blacks from arbitrary discrimination in the marketplace. Yet blacks often complain that union seniority rules work against them. F-M seem to forget that the marketplace is the historic protection for minorities, not government and unions. Further, it is plainly false to claim that blacks have the same ratio of insiders to outsiders as whites do. We need only look at the huge numbers of blacks who are young, unemployed, illiterate, and out of the work force.

Chapter 9 takes up the question of job satisfaction. F-M

accurately observe that union workers have very poor perceptions of supervisors and their own relationship with supervisors. Union workers claim that their supervisors do not encourage or help them to contribute to improving the production process. These facts are well known to industrial relations specialists and the explanations are obvious, though uncited by F-M. Unions impose job rigidities which increase worker boredom (e.g., UAW auto plants have over 135 job classifications and no one may do another's job, no matter what the temporary production situation), union headquarters constantly spew anti-company propaganda, and prickly workers file grievances when supervisors try to change something. All very unpleasant.[3]

F-M point out that union workers are dissatisfied with how unions affect their say on the job and in the company and are dissatisfied with what little unions do to make their jobs interesting. Yet a few pages later, the Harvard professors lament that "many nonmembers appear to have an incorrect perception of what unions do" (p. 145). F-M admit, however, that "voice operates by fanning discontent" (p. 149).

Chapter 10 discusses what unions do to nonunion labor. Here F-M waffle:

> Some nonunion workers gain from unionism, notably those in large non-union firms and in firms threatened by organization that choose to combat unionism with "positive labor relations." Other nonunion workers, notably less skilled "secondary" workers, appear to lose from unionism. The net effect on the entire nonunion workforce is unclear. (p. 161)

Extraordinary. This flatly contradicts economic analysis. So-called union substitution policies by companies cannot be extensive—why should companies incur unionized costs without a fight? Some companies consciously follow union avoidance strategies, but this is part of the social waste induced by monopoly unions and the interventions supporting unions. The overriding truth is that an artificial scarcity implies artificial abundance elsewhere. Unions therefore harm prosperity and lower the flow of real wages. Over the long run, unions particularly impoverish by deterring investment.

Chapter 11 makes the case that unions improve productivity. F-M say, "The new work suggests that in general productivity is

higher in the presence of unionism than in its absence" (p. 163). While F-M admit there are productivity-reducing aspects of unionism, they claim that if management conducts good industrial relations, productivity is likely to be higher under unionism. To be sure, a few empirical studies find that productivity is higher in union than nonunion firms, but F-M's interpretation is wrong. Unions impose higher than competitive labor prices on unionized firms and firms seek maximum profit, so the marginal productivity of unionized labor among the survivors must be greater than that of nonunion labor, provided that firms eventually are able to employ inputs so that their marginal productivities equal their prices. Effective unionization, then, necessarily diverts employment from high- to low-productivity uses. Statistical techniques cannot eliminate this effect of union behavior in the data, nor should this result be applauded as a positive effect on output per worker. These union—nonunion productivity differentials are classic distortions in the allocation of scarce labor and capital caused by monopoly prices (see Reynolds, 1986).

F-M ignore direct restrictions on output imposed by unions—call it featherbedding, job security, or overstaffing. Examples are legion: tearing out factory wiring to rewire with union labor, standby orchestras, refusal to use ready-mixed concrete, compelling the use of an expensive operating engineer to run a construction elevator instead of a cheaper laborer, and so on. Most businesspeople bitterly complain that union work rules cost them more than union wages. While some Harvard professors and labor writers believe that unions aid productivity, surveys find few businesspeople who share this opinion (Reynolds, 1984, pp. 87–88). Neither F-M nor other pro-union scholars ever cite clear, observable cases of union improvements in productivity; they only cite econometric studies.

Perhaps the most telling objection to the F-M productivity claims is that managers, investors, and employees in nonunion firms have every financial incentive to discover and adopt any techniques that produce large gains in production at low cost. If unions and unionized firms happen to stumble into such productivity boosters, their advantage will not be kept by unionized firms for very long. Logically there can be no systematic union productivity advantage for economists to detect.

Other statistical studies find that the growth of total factor (residual) productivity is slower in industries with high

proportions of union coverage. Even F-M admit that "unionized industries have, indeed, had somewhat slower growth of productivity than nonunion sectors, [but] the observed relation is too weak statistically to support the claim that unionism reduces dynamic efficiency" (p. 170). In truth, the union creed is: Here today, here forever.

Chapter 12 covers the impact of unions on profits. F-M, like other economists, find negative effects on the return to capital. F-M, however, say that this is OK because unions "reduce exceedingly high levels of profitability in highly concentrated industries toward normal levels. . . . the union profit effect appears to take the form of a reduction of monopoly profits" (p. 186). Very convenient: union coercion only harms "the financial well-being of organized enterprises or sectors" (p. 189). Of course, even if we believed that the Robin Hoods of the labor market operated F-M's way—robbing only allegedly well-heeled giants such as AT&T, United Airlines, and GM—Freeman and Medoff ignore the consumers harmed by the further underproduction of "monopoly" output induced by union pricing, and the investors (including the widows, orphans, and workers trying to avoid poverty in their old age) who own shares of corporate giants. F-M blithely conclude that "there is little normative content in the direction of the effect per se" (p. 189). They fail to consider the inefficiency of concentrating overpriced labor on successful enterprises and rewarding less-successful enterprises with underpriced labor.

Chapter 12 is another instance of F-M's delusion that organized labor's enemy is capital—in this case, big business. Collaboration between big labor and big business is more familiar in Washington than in disputes—be it the shoe, auto, trucking, or steel industries—as both unions and companies seek protection from the competition of (mostly) nonunion domestic and foreign companies. The "enemy" of union labor is nonunion labor, not rapacious capitalists.

In chapter 13, F-M try to whitewash union political activities, claiming that although unions exploit existing regulations to obtain benefits for their members (often at the expense of the general public), most legislative success comes in the form of "general labor and social legislation" (p. 200). George Meany said it better: "Every piece of social welfare legislation in the last two decades carries a union label" (cited in Reynolds, 1984, p. 212). F-M exaggerate the distinction between the narrow and broad agenda of the unions. The AFL-CIO may

claim that they lobby for, say, federally funded mass transit to help the elderly, disabled, and minorities, but union finances and membership ride on taxpayer subsidies to unionized municipal buses and trains. Unions lose some legislative battles to be sure, but all interest groups do.

Chapter 13 also misstates the political struggle as business versus labor. For example, "Legislation that strengthens unions tilts the balance of collective bargaining toward labor, while legislation that weakens unions tilts the balance toward business" (p. 201). But reductions in the legal privileges and immunities of organized labor help consumers. Some businesses are helped, others hurt. Consumers, not "business," primarily suffer the losses from the union-imposed wage taxes. Freeman and Medoff's analysis and prescriptions overlook the wisdom of Adam Smith: "Consumption is the sole end and purpose of production; and the interest of the producer ought to be attended to only so far as it may be necessary for promoting that of the consumer" (*Wealth of Nations*, book IV, chapter 8).

Chapter 14 argues that unions are not the unresponsive, undemocratic, corrupt, strike-happy organizations that some claim. While "blemishes" exist, they are minor and no more common than in the business world, F-M reassure us. For example, F-M argue that strikes are a trivial cost in terms of labor hours lost to the economy, as many economists conclude. This is a superficial analysis, however. Union wage distortions and other union impediments to efficient production and employment rest on the strike threat. The threat does more harm in paralyzing management than strikes do. Further, F-M never define a strike. A strike is not simply a mass walkout by incumbent workers to protest substandard conditions. Free people have always had the unqualified right to withdraw their labor. As Arthur Shenfield describes the behavior of strikers:

> The jobs from which they have withdrawn performance belong to them, they maintain. Their labour is present and available for those jobs, and woe betide any other workers ("scabs", "blacklegs", etc.) who may seek to offer their labour in place of that of the striker. Woe betide also any employer who seeks to hire the labour of such "interlopers." (p. 11)

The irony of *What Do Unions Do?* is that it concentrates almost exclusively on the effects of unions, not the actual

behavior of unions—the strikes, organizing, boycotting, campaigning, compulsory membership and dues collection, grieving, lobbying, pressuring, and political activism everywhere. The book tells us little about what unions do (the rent-seeking process) and nothing about the associated threats of disruption and violence that underlie the union system. Nor is there anything about the full-time union bureaucracy of some 35,000 people who live off $5 billion in annual dues collected from workers' wages, the annual compensation of $750,000 for Teamsters' president Jackie Presser, and so on. Ignored also is turnover among national union officials, summed up by a George Bernard Shaw character in *The Apple Cart*: "No king is as safe in office as a trade union official."

Chapter 15 has an amusing title: "The Slow Strangulation of Private-Sector Unions." It suggests that unions are the innocent victims of coercion rather than perpetrators of private coercion and beneficiaries of state privilege. Everybody agrees that the numbers show a steady, sizable decline in the share of the work force represented by unions. The question is why. F-M claim 72 percent of the decline stems from change in economic structure. They fail to mention that union pricing and belligerence change structure—decimating the steel industry, northern heavy industry, meatpacking companies, and so on. In F-M's account, unions are passive reactors to change, however, not causes of change. It would be closer to the truth to say that unions became powerful enough to destroy themselves.

What really disturbs F-M about the sunset days of unions is managerial opposition to unionism. Hiring labor consultants, firing workers for union activism, and other kinds of "unfair management practices" are hard to assess as a factor in the demise of unions, but F-M believe they are important, accounting for a quarter to a half of the union slippage. Yet, the private-sector decline since the early 1950s has been a straight line, more or less. F-M recommend more pro-union regulations, such as requiring elections within fifteen days of a union petition (before management can react effectively), to offset managerial "law-breaking."

Contrary to F-M, a lot of the responsibility clearly rests on unions and their image with employees. F-M implicitly assume that most workers would join unions if it were not for intimidation by management. This is easily disproved. There are many antiunion workers in the United States, some fiercely so. They have religious, ideological, and financial reasons for being

against unions. Companies that are nonunion or trying to become nonunion want to gain access to this part of the labor force and allow the more productive employees to advance. Surveys show that only a third of nonunion employees say they would vote union in an NLRB election. Unions continue to lose NLRB elections and decertification votes.

F-M, however, blame management for the union slippage. It is strange to see economists blaming managers in a normative sense. Even Freeman and Medoff admit that unions reduce profits. Those of us who are consumers and nonunion labor sellers might even cheer a little if more managers found their backbones and resisted union aggression. As union—nonunion wage differentials and work rules grew during the 1970s, causing many unionized companies to become uneconomic in increasingly deregulated and global markets, perhaps more managers began to resist forced labor exchanges. F-M indirectly recognize this factor because their last chapter urges unions to "use their economic power more judiciously in the future" (p. 250).

Alfred North Whitehead said, "A great society is a society in which men of business think greatly of their functions" (Jackman, p. 17). Suppose more managers said, proudly:

> Yes, we're trying to maximize the value of the company, the wealth of the owners. We try to produce and sell our products for the highest profits obtainable. We insist on our right to seek out the lowest prices for the skills we want to employ, as well the lowest available prices for the other inputs we use. We intend to run a harmonious ship, keep our labor costs competitive, protect jobs in this company, defend the wealth of our shareholders, and ultimately protect consumers. Efficient managers are the only line of defense for consumers. Our behavior also adds to productive employment and output in the economy, offers employment opportunities to the "outs," and has the long-run effect of diminishing economic inequality. Freeman and Medoff may condemn us, but apparently they do not understand economics. (p. 17)

If these imaginary managers would add, "We also insist on the right of workers to seek out the highest prices for their

services, unimpeded by those allegedly harmed by this market freedom" (e.g., highly paid union members), the remedy for our labor maladies would be close at hand.

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[1] In an exchange with Melvin Reder, Freeman and Medoff (1985, p. 642) deny that they are pro-union, claiming their stance is merely "pro-empirical social science." Further, they aver that while they welcome "serious scientific investigation" concerning their union hypotheses, they "do not welcome criticism or praise which has a political, personal, or other nonscientific basis. It is a waste of everyone's time." Reder (p. 640) notes that "to state that, *inter alia*, a book functions as a political-economic tract is in no way to castigate it."

[2] In a similar vein, Reder (p. 641) writes,

> The empirical findings reported by F&M on union—nonunion differences in wage rates and other aspects of compensation are (partial) associations. To interpret such findings as indicative of the *effects* of unionism, rather than of "other" forces correlated with the incidence of unionism, requires that some account be taken of the response of potentially unionizable workers to the (perceived) gains from being unionized.

[3] Toner, for example, studied 244 workers in seven electronics companies in Ireland and found "no support for the 'voice' theories of the Harvard School. Workers in the non-union companies studied appeared to enjoy more 'voice,' better conditions, and higher morale" (p. 200).

The Crash and Its Aftermath A Review Article

Clifford F. Thies

In *The Crash and Its Aftermath*, Barrie A. Wigmore presents a detailed chronology of financial markets from "Black Thursday" in 1929 to President Roosevelt's "100 days" in 1933. The book's strength is in its consideration of bond markets, including the U.S. Treasury, corporate, municipal, and foreign bond markets, as well as (to a lesser degree) commodity markets, in addition to money and stock markets. Nowhere else can as complete a financial history of this time period be found. The book's weakness is its underlying theme that the Great Depression was caused by an unbroken string of negative shocks which pounded financial markets and the U.S. and world economies into ruin.

Wigmore begins with the fall of stock prices that took place from October to November 1929. This reflects his belief that the first negative shock causing the Great Depression was the speculative boom of the late 1920s which, on margin financing, raised stock prices to historic highs. Then, when reality inevitably burst this bubble, stock market prices tumbled, and tumbled, and tumbled, and took everything down with them.

The view that overspeculation during the late 1920s caused the Great Depression has been subscribed to by many contemporaries of the Depression and can be found in a number of histories. Among those holding this view have been conservative economists such as Benjamin Anderson and Keynesian economists such as John Kenneth Galbraith as well as officials of the Hoover administration. Galbraith, in *The Great Crash*, wrote "the collapse in the stock market in the autumn of 1929 was implicit in the speculation that went before. . . . This was the way past speculative orgies had ended. It was the way the end came in 1929. It is the way speculation will end in the future."

Wigmore makes this argument by gathering a voluminous amount of data relating market valuations of stocks to book values of assets and reported earnings. But, accounting data are significantly distorted by inflations and deflations. Using replacement cost estimates of assets and earnings, John Ciccolo

and Christopher F. Baum have demonstrated that market valuations of stocks were no more optimistic during the late 1920s than they were during the mid-1960s. While both the late 1920s and mid-1960s experienced peaks in the stock market, the bull market of the 1960s was not followed by a crash and a depression. Something other than or at least in addition to the bull market of the 1920s must have caused the crash and the following depression.

Wigmore seems continually to touch on, but never grabs hold of, the overwhelming deflationary forces of the late 1920s and early 1930s. In his final chapter, he does indicate that "price level changes had an important impact." But, he never really analyzes the origin of falling prices: Why were commodity prices falling? And, was the Hoover administration's response of exhorting support of prices and wages appropriate?

Looking back, the obvious cause of the deflationary forces of the late 1920s and early 1930s was the (only temporarily successful) attempt by the United States and Great Britain to stabilize prices at levels well above their pre-World War I levels. During World War I, as during most wars, inflationary finance was used to pay for a substantial fraction of greatly increased, mostly war-related, government expenditures. For most belligerents, this was accomplished by suspending the gold standard and printing new paper money. For the United States, this was accomplished by monetizing the inflows of gold from the warring nations that had suspended. In the two cases the results were the same: a doubling of prices over a short period of time.

After the war, the United States and Great Britain had a decision to make: whether to stabilize their currencies at their prewar values or to make permanent some or all of their war inflations. The decision was made, explicitly in Great Britain, to only partially deflate prices *and* to resume the prewar gold parity. The same decision was made implicitly in the United States by attempting to stabilize prices at a higher than prewar level.

A new twist on the gold standard was supposed to enable the world supply of gold to support these higher prices. This new twist was the substitution of a gold bullion standard for a gold coin standard. In this way, gold would be taken out of circulation and hoarded by central banks so as to enable them to issue a greater quantity of money. Furthermore, only the United States and Great Britain were supposed to actually "back" their

currencies with gold. Other countries, such as France, Germany and Italy, were to back their currencies with sterling- and/or dollar-denominated liquid assets.

This new gold standard did not work for two reasons. First, at the prices of the 1920s, it was not profitable to mine gold. Thus, the supply of new gold was insufficient to finance expansion of world trade at the new "permanent" level of prices. Second, France, Germany, Italy, and other countries resumed convertibility, increasing the world demand for gold reserves.

By the mid-1920s, the increasing world demand for gold and the diminished supply of newly mined gold resulted in outflows of gold from the United States. The Federal Reserve responded by "immunizing" these gold flows. That is, in spite of the outflow of gold, the Federal Reserve maintained the quantity of money relative to domestic economic activity in order to stabilize prices at their new "permanent" levels. By the late 1920s, the amount of "free gold" available to the Federal Reserve fell to near zero. By the late 1920s, it would have been clear to an astute observer that the United States would have either to devalue or to deflate.

Unfortunately, the Hoover administration as well as many economists and industrialists confused the prosperity of the 1920s with the new "permanent" level of wages and prices. Thus, they mistakenly refused to lower wages and prices, choosing instead to "share" employment, on the outset of deflation, as Murray Rothbard has explained in *America's Great Depression*. (Krooss, pp. 90–91, describes this belief as the "high wage doctrine." Bernanke conducts an econometric investigation of work sharing and wage stickiness during the Great Depression.) Wigmore does refer to Hoover's exhortations to "neither raise nor lower wages," but offers little criticism.

Irving Fisher was convinced that the fundamentals (supposedly including the impact of Prohibition on the American worker's productivity!) indicated that the stock market crash was simply a correction. Even so, in *The Stock Market Crash—and After*, Fisher did address the "Menace of Gold Shortage," noting the outflows of gold, the low level of "free gold," and the fall in world production in gold. The market, apparently, also took note of the scarcity of gold since gold stocks and French-issue gold bonds performed relatively well throughout the Crash. Alaska Juneau Gold and Homestake Mining, two of the many stocks that Wigmore tracks through the early 1930s, outperformed their industry group ("mining stocks") and the market as a whole even though neither company featured any particular financial

strength.

Wigmore feels compelled throughout his book to respond to *A Monetary History of the United States*, the history of this period written by Milton Friedman and Anna Schwartz. Friedman and Schwartz argue that much of the severity of the Great Depression could have been avoided if the Federal Reserve had maintained the liquidity of the banking system through open market purchases designed to maintain the quantity of money.

Wigmore absolves the Federal Reserve from the criticism of Friedman and Schwartz by saying, in effect, that preventing bank panics was not the job of the Federal Reserve. To the contrary, the Federal Reserve was established by the Congress after the Panic of 1907 specifically to prevent bank panics. Wigmore argues that even if the Federal Reserve had wished to flood the banking system with liquidity, it could not have done so because of its need to "defend" the U.S. gold stock. (Of course, the reason the Fed was forced to defend the U.S. gold stock is that it was trying to fix too high a price level for goods and too low a purchasing power value for gold.)

In discussing monetary policy, Wigmore creates a distinction designed to exonerate the Federal Reserve from the criticism of Friedman and Schwartz. Money, says Wigmore, was easy "with narrow reference to the conditions in the money market, such as declining [short-term] interest rates." Wigmore persists in the Keynesian viewpoint, recently restated by Peter Temin in *Did Monetary Forces Cause the Great Depression?*, that short-term interest rates are *the* barometer of monetary policy. Short-term interest rates, like all market-determined prices, impound a variety of information (inflation expectations, liquidity and risk premiums, tax effects, etc.) in addition to the level of and/or change in aggregate demand. The movements of interest rates are simply too complex to be used to identify the impact of monetary policy.

A true gold standard would have required the Federal Reserve to reduce the money supply during the gold outflows of the 1920s. This policy would have lowered prices gradually to their prewar levels. (Such a gradual deflation occurred after the Civil War, enabling resumption of the gold standard in 1879.) Alternatively, once the massive deflationary forces became obvious, the Hoover administration and key industrialists could have urged across-the-board cuts in wages and prices to speed up the process and minimize the impact on employment and production.

Another solution would have been to devalue the dollar in concert with Great Britain's return to the gold standard at a lower parity reflecting the new "permanent" level of prices. Yet another solution—this was Irving Fisher's—would have been to index the gold content of the dollar so that a dollar would always be constant in terms of its purchasing power.

The solution eventually implemented during President Roosevelt's "100 days" involved devaluation, suspension of the gold clause then common in long-term bonds, massive expansion of the money supply (monetarist-style monetary ease), the cartelization of U.S. industry through the National Recovery Administration, the Wagner Act, and a slew of regulatory agencies, and federal social insurance including Social Security—the lot collectively known as the New Deal and designed to insure reinflation of wages and prices.

The response of government to its botched attempt to fix both the price level and the purchasing-power value of gold involved a massive and, as we now know, permanent increase in its intervention in the economy. Of course, those who believe a mysterious succession of negative shocks could have caused the Great Depression are apt to welcome government intervention in the economy. In another time, they would have been the people to sacrifice virgins to allay the gods.

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Berger on Capitalism

David Gordon

Peter Berger is an astute observer and erudite scholar but a poor theorist. So, at least, one is driven to conclude, judging by his work under review here, *The Capitalist Revolution*. Berger, famed for his work as a sociologist of knowledge, has braved the perils of conformity in his discipline by writing a work sympathetic to capitalism. He advances in the book fifty propositions "about prosperity, equality, and liberty": the issue of the role of capitalism in economic development especially interests him. Many of these propositions are both true and important, e.g., "44. There is an affinity between socialism and the totalitarian project for modern society" and "48. There can be no effective market economy without private ownership of the means of production" (p. 215). Unfortunately, Berger thinks he is doing much more than presenting and discussing certain statements.

Specifically, he believes that he has developed a theory of capitalism. He does not claim that he has constructed the complete edifice of a valid theoretical account of capitalism. But at least he has begun the task. "Theory" he takes in a very ambitious way. Weber, Schumpeter, and Hayek have not developed a complete theory of capitalism, since none of these writers has a comprehensive account relating capitalism to other social, cultural, and intellectual trends. Marx has a theory of the required scope: *its* problem is that it is empirically false. Many of Marx's predictions (e.g., that the position of workers under capitalism would continually worsen) blatantly contradict the facts. The task confronting Berger, then, is to devise a theory that has the range of Marxism and that is also true.

To assess the success of Berger in attempting this Herculean labor, one question at once confronts us. What does Berger mean by a theory? The answer to this query leaps out at the reader of *The Capitalist Revolution*. Berger again and again states that a theory must be empirical, i.e., it must advance falsifiable propositions. He states, e.g., "I want to stress, as emphatically as I can, that each one of these propositions is to be understood as a hypothesis within an ongoing empirical inquiry . . . each proposition is, in principle, falsifiable" (p. 8, emphasis removed).

In contrast, he scorns "a priori" theorizing. He ironically

notes that he has no grasp of the "inner logic of history" (p. 9). Causal relations between social phenomena cannot be deduced by logic, but must be discerned by observation of the real world. One can hardly help but note that Berger's argument in favor of empiricism in theory construction has proceeded in a highly a priori fashion. How does Berger *know* that no causal relation can be established without reference to experience? Does he think (this would *not* be self-contradictory) that he can show by a priori argument that no a priori argument can establish a causal relation? If he thinks this, what is the argument? None is offered.

Or is it, perhaps, that Berger thinks that it can be established empirically that no causal relation can be known a priori? But how could this be shown? All that one could show empirically is that various attempts to argue for such an a priori relation have failed. But this would not show that no future attempt to discover such a relation *must* fail. Also, even if it *were* the case that no *argument* could establish an a priori causal relation, it would not follow that no relations of this type exist. Nor would it follow from the fact, if it were one, that no argument could establish an a priori causal relation that we could not know that a proposition asserting such a relation was true. Perhaps there are some a priori causal propositions that are simply recognized to be true rather than proved by argument.

With some justice I might be accused of reading too much into Berger's claim. Probably all that he means is that in social science he does not think a priori theorizing is very successful. If so, there is one obvious counterexample he needs to confront. Austrian economics proceeds in exactly the way Berger rejects: its praxeological method, as carried on most notably by Mises and Rothbard, deduces propositions from self-evident axioms. Many of these propositions state causal relations, yet no claim is made that these propositions need to be established by testing. Yet Austrian economics seems a very powerful theory indeed; unless Berger can find some error in it, his view about theory in social science fails.

Oddly, Berger seems not only aware of Austrian economics but appreciative of some of its conclusions. He cites with admiration Mises' demolition of the pretensions of market socialism (pp. 188–89). (That he misdates Mises' argument by ten years because he gives the date of the English translation as the date of the original is a point only someone guilty of arrant pedantry would mention, so I shall not speak of it.) Does he not know that Mises' argument is a priori, not empirical?

But let us for the moment pass by these strictures and assess Berger's presentation simply as an empirical theory. As we have said, he endlessly reiterates that a scientific proposition must be falsifiable. Presumably he has learned this from Karl Popper, but he has ignored another aspect of the *Logic of Scientific Discovery*.

Popper makes in that work a valuable point that even those who reject his empiricism should accept. A good scientific theory should be daring in its claims. It should enable us to arrive at surprising conclusions: a mere summary of what we already believe is not a good theory. Further, aside from the theory's predictions, a *theory* must be just that—it must be a body of statements *explaining* some aspect of the world, not merely describing it.

An example will clarify this point. Suppose someone claimed to have arrived at a theory of the place of professional sports in modern society. Imagine his theory consisted of the following propositions: 1. Some sports are more popular than others. 2. A few athletes make very large salaries. 3. More men than women are professional athletes, and 4. Propositions 1, 2, and 3 will continue to be true in the near future. Surely someone who presented this as a theory would convict himself of not understanding the nature of science. A collection of unrelated commonplaces is not a theory.

Judged by this hardly demanding standard, Berger's book does not offer a theory at all. Each of his fifty propositions simply lists some fact about the present or past and predicts that the trend that the fact mentioned implies will continue to prove true in the future. A few examples will illustrate Berger's procedure. His first proposition is: "Industrial capitalism has generated the greatest productive power in human history" (pp. 36 ff). Very good; but this is no more a theoretical statement than is, "Berger does not understand the meaning of the term *comparative advantage* in economics." Both are perfectly true (the second will be evident to any reader of chapter 7); but neither is a theory.

Again, consider "42. There is an intrinsic linkage between socialism and economic inefficiency." This sounds much better: if Berger argued for this in the style of Mises, he would be proving a very significant theoretical statement. But he does no such thing. Instead, he has merely noted that existing socialist countries have a great many economic problems and predicted the continuance of this trend for the future. Berger no doubt deserves credit for making this statement, since so obvious a

truth seems beyond the mighty minds of most of his sociologist confrères. But seeing this hardly makes one a theorist, much less one who has surpassed in comprehensiveness Weber, Schumpeter, and Hayek.

It is, however, not altogether the case that *all* of Berger's theoretical propositions are commonplaces that Berger predicts will continue to prove true in the future. There is a technical flaw that makes several of the propositions false. In an effort to avoid begging the question in favor of private property, Berger defines capitalism as "production for a market by enterprising individuals or combines with the purpose of making a profit" (p. 16). He does this not because he opposes private property; quite the contrary, he later contends that private property is necessary for an effective market economy. But he wishes the latter proposition to be an *empirical* one—again that blessed word!—and thinks that if he defined capitalism so that it involved private ownership, the connection he postulates would be unempirical. He has overlooked the fact that on *his* definition of capitalism, a number of his propositions become false. As he rightly points out, market socialism is not a very efficient economic system. But if market socialism is a type of capitalism, as Berger's definition allows, then it is untrue, e.g., that "27. Capitalist development is more likely than socialist development to improve the material standard of life of people in the contemporary Third World, including the poorest groups." This is both true and well said about capitalism as normally defined, i.e., as involving private ownership of the means of production. Further, I think it is this that Berger actually means to be talking about. But, using his own definition, what he actually says is false, since there is no reason to think that market socialism will aid the development of the Third World. Nor is it true that "15. The new knowledge class in Western societies is a major antagonist of capitalism" using Berger's definition. Many of the members of that class strongly support market socialism. Berger once more has not succeeded in saying what he obviously wishes to say.

Our impression of Berger's logical ability cannot rise when we note that he also says that the term *market socialism* is analogous to "circular square." If the concept of market socialism is logically contradictory, why does Berger make room in his definition of capitalism for a regime involving a market but no private ownership? That just *is* market socialism. I leave as an exercise for the reader the detection of the elementary fallacy in

Berger's contention that if capitalism were defined so as to involve private property, the link between private ownership and efficiency would be made true by definition rather than empirically discovered.

Berger's difficulties with philosophy are not yet over. Although almost all his propositions support the superior productivity of capitalism over socialism, he rightly points out that in themselves the propositions are value-free. Someone who does *not* want economic efficiency will obviously not consider it an advantage of capitalism that its rivals are inefficient. Berger himself does support capitalism, however, and, in his last chapter (p. 218ff), he compares capitalism and socialism according to certain values that he thinks many readers will share and that he apparently holds himself. With the list of values, and with his comparisons, in which capitalism emerges as the easy winner, we in general have no serious quarrel. One wonders, however, why Berger accepts without question the assumption that income equality is a value—he generally speaks of movement toward income equality as movement in a "better" direction.

The main problem with Berger's approach to value lies elsewhere than in his comparison of capitalism and socialism. It is that for him, values are arbitrary assumptions (pp. 217–18). Thus, the fact that capitalism encourages the growth of individual freedom plus the additional fact that socialism leads to bureaucratic control and dictatorship are *not* proof that capitalism is objectively better than socialism. These facts lead to procapitalist conclusions only if one accepts the value of freedom. Berger unfortunately gives no argument for this familiar logical positivist thesis. Though this is not the place to argue against it, surely Berger should possess the minimal acquaintance with the current state of philosophical literature that would have sufficed to inform him that his view of values is highly controversial and cannot be assumed without argument. Just as a sample of the type of difficulty Berger's view leads to, does it really make sense to say "My highest value is irrationality, and I thus consider good whatever is irrational"? On Berger's approach, this postulated "value" is as valid as any other.

After these negative remarks, I hope it will not be considered hypocritical if I say that Berger's propositions in general express much sound sense. Although the productivity of capitalism over socialism, as well as the totalitarian tendencies of the latter system, should be obvious to everyone, unfortunately

they are not. If anyone needs a good summary account of these facts and others of a similar kind, he will find it in Berger's book. The chapter "East Asian Capitalism: A Second Case" is especially informative.

The book, though, is not without its fair share of mistakes. From Berger's discussion on p. 53, one suspects he has temporarily forgotten that nonnobles could join the aristocracy under the Old Regime. The Duc de Saint-Simon (whom Berger mentions on the same page) for example, was the grandson of a commoner. Further, the author gives entirely too much credit to the pessimistic interpretation of the early Industrial Revolution (p. 41); he wrongly accepts the thesis of James Burnham that legal ownership and functional control are separated in the modern corporation (pp. 56, 225); and he fails to see the point so well brought out by Mises' short *Bureaucracy* that large corporations in a market system do not operate in a similar manner to government offices (p. 56). In view of the many anticapitalist myths prevalent among what Berger calls the "knowledge class," one must say in conclusion that, in spite of its errors and theoretical inadequacies, Berger's book is better than most. He can at least recognize a truism when it stares him in the face.

Review of Peter Berger, *The Capitalist Revolution* (New York: Basic Books, 1986).

In Memory

A Tribute to W.H. Hutt

Morgan O. Reynolds

One of the great economists of our age, W.H. Hutt, died in June, 1988, just two months shy of his eighty-ninth birthday. As he once told me, "I was born in the century of Napoleon." The comment typified Bill Hutt's amiable pride and gentle character.

Hutt's admirers have long lamented their hero's lack of fame and influence—no awards, knighthood, or Nobel prize. Yet it was partly owing to Hutt's fateful decision to depart his native England for South Africa in 1928, a career venue almost guaranteed to ensure academic obscurity. In recent years, however, a distinct Hutt revival has been under way. And the timeless quality of Hutt's contributions to our body of knowledge promises a growing Hutt impact.

Hutt's academic career began with a 1926 *Economica* article exposing the myth that mass production methods were antiworker in "The Factory System of the Early Nineteenth Century," since reprinted in Hayek's *Capitalism and the Historians*. Hutt was amused and pleased that he continued to receive about forty dollars a year in royalties from a sixty-year-old paper.

The article was only the beginning. His minor classic, *The Theory of Collective Bargaining* (1930), effectively debunked the errors of countless labor writers and economists by demonstrating the antilabor consequences of union coercion. *Economists and the Public* (1936) unfortunately was swept away by the Keynesian tide; *The Theory of Ideal Resources* (1939), perhaps Hutt's most original contribution to economics, was a general theory of unemployed resources clearly superior to Keynes' theory. *The Plan for Reconstruction* (1943) was a valiant if utopian scheme to dismantle market impediments in the postwar world. His important 1954 article, "The Yield from Money Held," extended Mises' theory by integrating the demand for money assets into the general theory of the consumer. *Keynesianism—Retrospect and Prospect* (1963), later revised as *The Keynesian Episode: A Reassessment* (1979), was a wide-ranging dissection of

faulty macroeconomic analysis, and *The Economics of the Colour Bar* (1964) identified how market forces dissolve the economic and social inferiority of nonwhites and how political forces tend to perpetuate racial inferiority. *Politically Impossible . . . ?* (1971) challenged economists to speak the unalloyed truth, without regard to public opinion or current political fashion. *The Strike-Threat System* (1973) exhaustively showed that union aggression in the long run cannot deliver on its claim to redistribute income from the owners of capital to owners of labor services, and *A Rehabilitation of Say's Law* (1975) straightened out Keynes' distortions of Say's law and focused on the real villain in deficient employment and output: "defects in the pricing system."

Hutt's key ideas—that fiscal and monetary policy cannot offset pricing problems, except temporarily; that restraints on market competition impoverish the poor and disadvantaged rather than helping them; that free-market pricing is the only device available to coordinate and maximize employment and output; that politically expedient concessions to sectional interest groups harm the social interest; that every increase in employment and output via a price cut adds to the source of demands for noncompeting outputs and employment; and that free markets maximize employment and output and diminish inequality generally—no longer wander as intellectual outcasts, beyond consideration in civilized quarters.

Hutt was a familiar figure at international conferences like the Mont Pelerin Society, an organization in which he was a founding member along with luminaries such as Ludwig von Mises, Friedrich von Hayek, and Milton Friedman. Professor Mises once said, "Professor Hutt's rank among the outstanding economists of our age is not contested by any competent critic."

Hutt was a literal citizen of the world, a man who had traveled to every continent and whose work was known on every continent. As a scholar, perhaps courage was his most outstanding characteristic. He was unswervingly devoted to the discovery of the truth, regardless of public opinion, professional fashion, or temporary political sentiment. He was completely detached from sectional interests and a master of rational thought, as the best economists have always been. He always perceived that competition was the shield and support of the general interest, as well as an egalitarian force. He took extraordinary care with definitions, exemplifying the highest standards and rigor of thought. But he always was modest,

forever denying originality. He insisted that he was merely clarifying what he thought was “pure orthodoxy” of the pre-Keynesian kind. He truly had the manners and style of another era.

W.H. Hutt was a classical political economist who brilliantly applied and extended economic theory in a variety of contexts. Hutt always put the consumer and entrepreneur at the center of economic action, thereby avoiding the fundamental error embedded in the British classical tradition. Hutt, for example, can be credited with coining the phrase, “consumer sovereignty.” True, Hutt’s pen was not always facile, he had a penchant for peculiar terminology, and his contributions were not error-free. Yet each work he left behind displays his fearless courage, unswerving dedication to the pursuit of truth, and the power of simple economic theory in the hands of a master.

Walter Bagehot wrote that “no real Englishman in his secret soul was ever sorry for the death of an economist.” Let us hope that Bagehot’s proposition is wrong in Hutt’s case. Bill Hutt, a man of gentle courage and scholarly integrity, is gone but his ideas will live on.

The Austrian Theory of the Business Cycle in the Light of Modern Macroeconomics

Roger W. Garrison

The Austrian theory of the business cycle has many critics. Some believe that this part of the Austrian contribution is so misdirected as to constitute an "embarrassing excrescence" (Yeager [1986, p. 378]); others simply doubt that there can be a single theory that provides a general account of cyclical activity (Leijonhufvud [1984, 1986]; see also Sirkin [1972] and Lachmann [1978]); and still others deny the existence of some of the most salient features of business cycles.[1] Defending—or even discussing—the Austrian theory of the business cycle, then, requires some careful groundwork.

There are a number of expositions of the Austrian theory in the literature, which for the most part are complementary (e.g., Hayek [1967, 1975b], Mises [1966, pp. 538–86], Mises et al. [1983], O'Driscoll [1977], Robbins [1934], and Rothbard [1975]), but because business cycles remain a live issue inside as well as outside the Austrian school, there is no—and can be no—canonical version. Gordon Tullock, who took an exposition by Murray Rothbard to be canonical, has identified perceived shortcomings of the Austrian theory in an article entitled "Why the Austrians Are Wrong About Depressions" (Tullock, [1987]).[2] The present article was initially motivated by Tullock's basic objections as well as by his "nit picks," as he calls them. But even his title is evidence of a misunderstanding. The Austrian theory is not primarily about depressions; it is about artificial booms and about the market process that brings them to an end. The theory sheds light on the kind of readjustments needed on the eve of the bust, but the issue of the depth and length of the ensuing depression as measured by the massive unemployment of labor is dealt with by the Austrians in ways that are similar to several other schools of thought.

Though inspired by Tullock's critique, the present article has an organization of its own—one that is responsive to other modern critics as well. Section I considers the very existence of

business cycles in order to lay the groundwork for evaluating the Austrian theorizing about them. Section II identifies essential differences between allocative distortions caused by legislation and allocative distortions caused by monetary expansion, linking the latter with cyclical characteristics of resource movements. Section III establishes the significance of capital theory in theorizing about the business cycle. Section IV after that provides some justification for the Austrian approach by considering how rival schools theorize in lieu of a theory of capital. Section V offers a summary evaluation.

I. The Existence of Business Cycles

Business Cycles as Econo-Rhythms

There is a sense in which it can be claimed that business cycles do not exist. If by cycles we mean continuous rhythmic movements in macroeconomic magnitudes, then there are no business cycles. The so-called long wave supposedly identified by Nikolai Kondratieff on the basis of two and a half cycles is the product of creative empiricism and has no basis whatever in theory (See Rothbard [1978], who evaluates Shuman and Rosenau [1972].) Short waves traced out by chartists, or technicians, are equally baseless. Their triple peaks, triple troughs, heads and shoulders, and the like are no more real than faces in the clouds.

Casual inspection of statistical data for economic aggregates such as total output, employment of labor, or net investment suggests a lack of cyclical regularity. Apart from obvious seasonal variations in some sectors of the economy (variations that require no special explanation), it is futile to attempt to identify a frequency and amplitude of some supposed sinusoidal movement. It can be—and has been—argued that the economy is much too complex for any one particular wave to be readily observed. Economic activity is characterized, according to Schumpeter (1934), for instance, by a number of cyclical movements of different frequencies and amplitudes. Kondratieff, Juglar, and Kitchin called attention to the existence of cycles with frequencies of fifty years, nine years, and five years, respectively. Schumpeter suggested that actual patterns of economic activity reflect the combined effects of all such cycles.

But theories about a composite cycle are no more sound than the theory of each of the component waves. Further, any

supposed confirmation on empirical grounds of the Schumpeterian view is inherently misleading. As a purely mathematical matter, *any* single-valued function, such as the time pattern of some economic magnitude, can be represented by a Fourier series, which combines an infinite number of sinusoids of different frequencies and amplitudes. The coefficients of a specific Fourier series may describe some particular set of macroeconomic data, but if the economics of business cycles is to be more than descriptive, cyclical movements must qualify as such on theoretical grounds.

Business Cycles as Monetary Disequilibria

While there are no built-in econo-rhythms in the market process, there are, from time to time, economywide disturbances of one sort or another. Attempts to identify rhythmic components in economic activity, according to Sirkin (1972) and others, are just misguided attempts to understand these macro-maladies. Axel Leijonhufvud (1984) has made headway toward our understanding of macromaladies and of competing theories about them by creating a useful taxonomy. Basic categories are defined in terms of (1) the nature of the disturbance and (2) the nature of the failure of the economy to adjust to the disturbance. The two "natures" are then categorized as *n* (for nominal) or *r* (for real).

This approach gives rise to a two-way taxonomy that can be symbolized as *n/n*, *n/r*, *r/n*, and *r/r*. To illustrate, suppose that there is a general, but unanticipated, shift of preferences on the part of wealth holders to a higher level of real cash balances. This is a *real* disturbance. Suppose further that there is some difficulty in the pricing mechanism for both inputs and outputs, which impedes the necessary decrease in the general price level. This is a *nominal* failure. Until the pricing difficulty is overcome, there will be excess supplies of commodities and factors of production on an economywide basis. This macromalady belongs to the *r/n* category.

Leijonhufvud recognizes that his categories represent the pure cases and that it is possible to have disturbances and adjustment failures where both are partly nominal and partly real. He demonstrates, though, that the taxonomy is useful in sorting out the sequential rounds of debate between Keynesians and Monetarists. More generally speaking, historians of economic thought armed with Leijonhufvud's categories can readily detect

when opposing theorists are simply talking past one another (theorizing about different sorts of disturbances) and when they have actual disagreements (about how the market reacts to a particular sort of disturbance). Leijonhufvud also shows that the historical relevance of macromaladies of a particular category depends critically upon the nature of the existing policy regime.

Leland Yeager (1986) draws attention to a particular sort of disturbance followed by adjustment failure that, in his judgment, is especially relevant for understanding depressions and hence for devising institutional reform aimed at avoiding them. A decrease in the money supply in the face of an unchanged money demand causes the prices of all commodities and factors of production to be above their market-clearing levels. While the market can eventually bring prices into line with the smaller money supply, it cannot achieve a new monetary equilibrium quickly or painlessly. The theory of "monetary disequilibrium"—a term with which Yeager ties his own ideas to those of Clark Warburton (1966)—focuses on the difficulties of achieving economywide price adjustments made necessary by a monetary contraction. Clearly, this focus puts monetary disequilibrium theory in the *n/n* category of Leijonhufvud's taxonomy.

The market's inability to bring about rapid adjustments in prices on an economywide basis guarantees that quantity adjustments will occur instead. That is, the failure—or sluggishness—of nominal equilibration brings on real disequilibration. And as is recognized in almost all macroeconomic theories, a decrease in real output can, through an income-constrained process, induce further decreases. Keynesians envision a "spiraling downward" of income and expenditures. In Yeager's terminology, "the rot can snowball" (1986, p. 371). Austrians refer to this same phenomenon as a "secondary depression" (Hayek [1975a, p. 44]), a term which reminds us that the primary maladjustment is something else.

In monetary disequilibrium theory, the problems caused by price-level sluggishness are further compounded by the fact that not all prices are equally sluggish. A gradual and uneven adjustment in the price level creates a period during which relative prices are pushed away from their equilibrium levels. (The *n/n* malady is contagious and can easily spread to the *n/r* category.) By the time the market reestablishes an equilibrium in terms of both relative and absolute prices, the economy can suffer substantial losses in terms of both misallocated and unallocated resources.

For those who take their cue from Warburton, monetary disequilibrium theory is believed to have broad historical applicability. Any economic downturn involving a monetary contraction is to be understood in terms of the fundamental difficulties of price-level adjustment. Such difficulties should dominate, in this view, any reasonable account of the Great Depression. The theory sheds no light on the problems inherent in a credit-driven boom such as occurred during the 1920s, and it does not explain—nor does it purport to explain—why the money supply began to fall at the end of the 1920s or why there was a prolonged monetary contraction spanning the years 1929–33. It does, however, identify one of the reasons for the economy's poor performance during and immediately after the contraction.

Business Cycles as Self-Reversing Market Processes

In the first view spelled out, business cycles are an inherent part of the market process; in the second, they are disruptions of the market process. That is, both the lower turning point (the upturn) and the upper turning point (the downturn) are *endogenous* for those who conceive of business cycles as econo-rhythms, and *exogenous* for those who think in terms of monetary disequilibrium. Contrasting econo-rhythms and monetary disequilibria in this way suggests another, more conventional taxonomy, in which business-cycle theories are categorized on the basis of the exogeneity (*X*) or endogeneity (*N*) of the lower and upper turning points (Hansen [1951, p. 411ff.]). The four categories can be symbolized as *X/X*, *X/N*, *N/X*, and *N/N*, where *X/X* is monetary disequilibrium theory and *N/N* is econo-rhythm theory. It is difficult to identify any simple relationship between this taxonomy and the one devised by Leijonhufvud. However insightful his treatment of market adjustments to monetary disturbances, Leijonhufvud never explains how—or suggests that—a boom engenders a bust or vice versa.[3]

The Austrian theory of the business cycle falls squarely into the *X/N* category. The exogeneity of the upturn is a clear recognition that the economywide disturbance is inflicted on the market process and is not an unavoidable feature of market economies. The endogeneity of the downturn gives a cyclical quality to the movements in prices and quantities and to certain macroeconomic magnitudes. The Austrian business cycle, then, is less of a cycle than the supposed econo-rhythms, but more of a

cycle than sluggish-price monetary disequilibria.

In the broadest terms, the Austrian theory is a recognition that an extra-market force (the central bank) can initiate an artificial, or unsustainable, economic boom. The money-induced boom contains the seeds of its own undoing: the upturn must, by the logic of the market forces set in motion, be followed by a downturn. Note that the words *induced* and *unsustainable* are consistent with the *X* and *N*, respectively, that define the *X/N* category of business-cycle theory.

The Austrian theory also qualifies, along with monetary disequilibrium theory, as a monetary theory of the business cycle. "Money matters" in both theories—but for different reasons. Further, if the Leijonhufvud taxonomy is applied to the entire sequence of events from the initial upturn to the subsequent downturn, then the Austrian theory would fall into the *n/r* category. As summarized by Fritz Machlup (1976, p. 23), "*monetary* factors *cause* the cycle but *real* phenomena *constitute* it." For Yeager and Leijonhufvud, monetary mismanagement precipitates a bust; for Mises and Hayek, monetary expansion engenders a boom, which eventually leads to a bust.

The Austrian theory is to be fundamentally distinguished from monetary disequilibrium theory by its emphasizing that "relative prices matter." The more prevalent claim that "money matters" derives from considerations of money-induced changes in the price level and sometimes of changing relative prices as the market process makes piecemeal adjustments toward monetary equilibrium. But for the Austrians, relative-price changes form the core of the theory. Money-induced changes in relative prices cause corresponding changes in the pattern of resource allocation. The self-reversing character of the market process set in motion by the injection of newly created money manifests itself most significantly in that aspect of the process that allocates resources over time—in the intertemporal structure of capital as governed by the interest rate. Alternatively stated, the observed cyclical quality of the market process consists in a *temporary* disruption of *intertemporal* market mechanisms.

II. Legislated Distortions and Monetary Distortions

The government implements all sorts of policies and programs that cause the price of some particular good to be above or below its market level. Interventions in the form of taxes and subsidies, price floors and ceilings, tariffs and quotas are, from a

narrowly economic point of view, permanent in their effects on resource allocation. A subsidy to home building, for instance, will result in a larger-than-otherwise investment in housing so long as the subsidy is in effect. It is possible, of course, that some regulatory schemes can create a political dynamic that eventually results in deregulation. Government-enforced cartelization of the airlines, for example, led to an eventual competing away of monopoly profits by the members of the cartel, which eroded the political support for continued regulation. The political forces for deregulation eventually prevailed. But apart from considerations of such political dynamics, legislative interventions by government have a certain permanence about them.

Legislated distortions of the price system play no direct role in cyclical movements of economic magnitudes precisely because of their quality of permanence. By contrast, monetary distortions do play a direct role in business cycles precisely because—and to the extent that—they are inherently impermanent. The market's distribution of income and hence of spending patterns, gives rise to a certain pattern of prices. The pattern can be altered by the spending of newly created money on some particular good or category of goods. But the initial price increases brought about by monetary injections, and more importantly the reallocation of resources associated with those price increases, do not have the permanence of legislated price supports. Subsequent rounds of spending of the newly created money reflect not the policy objectives of the monetary authority, but the preferences of the income earners. Prices not initially affected by the monetary injection are eventually bid up, thus causing a reversal in the movement of resources. Apart from one consideration to be noted later in this section, the allocative effects of a monetary disturbance are necessarily self-reversing.[4]

One of the most common objections to this aspect of the Austrian theory concerns the movements and subsequent countermovements of resources. The initial quantity changes would simply not occur, so the objection goes, if subsequent changes in the opposite direction were anticipated. Although alternative treatments of expectations will be discussed in a subsequent section, it may be helpful at this point to deal in a general way with the problem of expectations in macroeconomic theorizing.

A business cycle anticipated, in the view of some macrotheorists, is a business cycle avoided. Employing the assumption of so-called rational expectations along with other

essential assumptions, such as instantaneous market clearing and costless information, the New Classicists are able to transform the impermanence of money-induced distortions as seen by the Austrians into the nonexistence of such distortions. The self-reversing process becomes a self-preventing process. The Austrian focus on the injection effects of monetary expansion (rather than the price-level effects) and on the market process set into motion by the monetary injections warns against adopting the New Classicist view. Several considerations are relevant.

First, conceiving of monetary expansion as a process involving sequential rounds of spending suggests that expectations, even if correct or rational, may not preclude the cyclical effects of monetary expansion. Whatever their particular expectations, individuals who receive the newly created money only in later rounds have less spending power than those involved in early rounds of spending. Although for any individual, the ability to spend is not strictly limited to the amount of money currently possessed, there are ultimate limits on the individual's ability to transform expectations into actions. Put bluntly, you can't spend expectations. While bank credit and trade credit can provide substantial leeway, spending is not *perfectly* elastic with respect to unborrowed money balances (Hayek [1978, p. 175]). Thus, individuals who correctly and rationally expect a large injection of newly created money are not necessarily in a position to act in full accordance with their views—however rational those views ultimately turn out to be.

Second and more important, individuals who are in possession of increased money balances and who have correct, or rational, expectations still may not spend in a pattern consistent with the New Classicist view. A spending pattern that is internally inconsistent on an economywide basis does not necessarily imply inconsistency for the individual. That is, macroeconomic irrationality does not imply individual irrationality. An individual can rationally choose to initiate or perpetuate a chain letter—sending one dollar to the person on the top of the list, adding his name to the bottom, and mailing the letter to a dozen other individuals—even though he knows that the pyramiding is ultimately unsustainable. Similarly, it is possible for the individual to profit by his participation in a market process that is—and is known by that individual to be—an ill-fated process. So long as it is possible to buy in and sell out before the process reverses itself, rational expectations may exacerbate rather than ameliorate the misallocation of resources

induced by monetary expansion.

Third, apart from the relative-price changes that are reversed in a subsequent part of the process, there remains an effect that persists so long as the monetary authority continues to inject money in some particular way. (If this were the dominant effect, monetary distortions would be similar to legislated distortions and would lose their cyclical quality.) To illustrate with an extreme example, suppose that an aggressive and sustained monetary expansion is accomplished solely through the purchase of home mortgages. Can anyone doubt that the allocation of credit among borrowers and of resources among construction projects would be permanently affected? Hayek clearly recognized the permanence of this particular effect of monetary injection by using the term *fluid equilibrium* (1978, p. 173). So long as the monetary authority maintains its spending level in real terms, which in view of the resulting inflation requires an exponentially increasing level of spending measured in nominal terms, the distortion remains. [5]

Considerations of a possible fluid equilibrium, of disparities between rationality as applied to the individual and as imputed to the economy, and of limits to the transformation of expectations into actions all warn against the New Classicist view. It is simply not true that full knowledge of a monetary expansion is tantamount to no expansion at all. [6]

Austrians are sometimes criticized for assuming static expectations—the clear implication being that the assumption of rational, or even adaptive, expectations is preferable. This criticism would have some validity if a change in the assumption about expectations—from static to adaptive to rational—were to nullify the theory or cause it to have categorically different implications. But such is not the case. The assumption of static expectations, when employed, serves as a heuristic device. The market forces that characterize a money-induced boom and the subsequent bust can be spelled out first in their simplest form. Amendments can then be made to account for complications that arise from other-than-static expectations. The assumption of adaptive expectations requires that the arguments be restated replacing monetary injections with rates of monetary injection and then with accelerations, surges, and so on as market participants continue to adapt. The assumption of rational expectations, in its most defensible form, requires that the basic truth in Lincoln's law (You can't fool all the people all of the time) be recognized—as it was recognized by Mises (1953, p.

319) long before the birth of New Classicism. The assumption of rational expectations in its least defensible form (You can't fool any of the people any of the time) is to be dismissed out of hand.

III. The Significance of Capital in Business-Cycle Theory

The self-reversing market process set into motion by monetary expansion, previously described in general terms, begins to take on a more specific character when spelled out in the context of some particular market. If the analysis is to retain its macroeconomic character—that is, if the self-reversal is to have economywide ramifications—then the focus must be on some broadly defined market such as the market for labor, the market for capital, or the even more broadly conceived market for productive factors. If, however, the market that serves as the focus of analysis is defined too broadly, such as the all-inclusive market for goods, then there can be no money-induced process of any significance and hence no reversal. In a theory where holding money and buying undifferentiable goods are the only two alternatives, business cycles would be trivially portrayed—using Irving Fisher's imagery—as the "dance of the dollar." This is the fate of business-cycle theory, for instance, in the four-sector model devised by Patinkin [1965].

Capital in the Austrian Theory

That the Austrians singled out the market for capital goods as their focus for business-cycle analysis is to be accounted for by several considerations. First, it was largely the observed and widely acknowledged movements in capital-goods markets that initially motivated a theoretical explanation. Significantly, the various competing schools of thought—including the Austrians—used the terms *business cycle* and *industrial fluctuation* synonymously. The idleness of producers' goods used in heavy industry was perceived to be one of the most obvious and dramatic characteristics of economic downturns.[7]

Second, as a historical and institutional matter, monetary injections take the form of credit expansion. That is, newly created money is put into circulation through credit markets. In this respect too, the Austrian theory has a stronger empirical content than rival theories. The conventional assumption that newly created money is added directly to the cash balances of

market participants serves to abstract from the market process highlighted by the Austrians. Increased real cash balances of all individuals mean an upward pressure on all prices. But in the Austrian formulation, the spending of newly created money does not impinge on all prices at once or in some random fashion; it impinges in the first instance on the interest rate, the price that clears the market for credit and governs the allocation of capital.

Monetary expansion temporarily alters the terms of trade between goods now and goods later. This money-induced alteration has its most direct effect within the market for capital goods. The capital goods themselves constitute current commitments, some more binding than others, to particular production processes. In general terms, a fall in the rate of interest stimulates the creation and use of capital goods that aid in the production of consumer goods in the relatively remote future at the expense of those that aid in the production of consumer goods in the relatively near future. But the movement of resources away from the production of lower-order capital goods and toward the production of higher-order capital goods is followed by a countermovement (Mises [1953, p. 363]). That is, the money-induced restructuring within the market for capital goods is eventually revealed to be inconsistent with intertemporal consumer demand and resource availabilities; the process is self-reversing.

Third, it is the temporal dimension of capital that gives scope and significance to the money-induced self-reversing process. The essential function of capital, pointed out early on by Jevons, is "to put an interval between the beginning and the end of enterprise" (1970, p. 226). This, in summary terms, is the interval of time during which a misallocation of capital goods can occur and after which a reallocation must take place. Alternatively stated, it is the interval itself that is thrown out of equilibrium by credit conditions that are at odds with resource availabilities.

The economy's production process that spans the Jevonian interval consists of a number of separate stages of production. This vertical segregation, or temporal sequencing, comes into play in a way that is not always recognized. If all production processes were characterized by complete vertical integration—such that the commitment to initiate a process that will eventually result in the production of a consumer good is, in effect, a commitment to complete it—there would be little or no scope for a self-reversing process. Many of the arguments against

the Austrian theory based on considerations of expectations would have greater plausibility. Entrepreneurs who anticipate the ultimate consequences of easy money—on the basis of either theoretical understanding or historical experience—would not be eager to participate in a money-induced boom. Those who continue to produce despite the monetary disturbance would compete with one another at the outset for lines of credit that would see their production process through to completion.[8]

Identifying the circumstances under which expectations would be potentially nullifying helps to explain why expectations are not actually nullifying in modern industrial economies. Neither chain letters nor money-induced production processes would be initiated if their initiators were bound to participate in every subsequent stage of the respective processes. The absence of complete vertical integration, however, can create significant opportunities for entrepreneurs to profit privately from one or more stages of a production process that, taken as a whole, will result in a social loss. And, as in the case of chain letters, those who make profits in the early stages may or may not hold expectations that reflect an understanding of the nature of the process; expectations, rational or otherwise, are in this context a subsidiary issue.

Still again, the Austrian theory has empirical content that is absent from rival theories. Primitive societies, whose members live a hand-to-mouth existence, do not experience business cycles as described by the Austrian theory; they have no capital structure that can become intertemporally discoordinated. Labor-intensive agricultural economies, whose intertemporal structure of production is determined more by the seasons than by credit conditions, are largely immune to the cyclical disturbances identified by the Austrians. Susceptibility to money-induced self-reversing market processes increases with the interval between the beginning and the end of enterprise and with the extent to which production processes are divided into temporally sequenced stages of production. These propositions conform with the broadly empirical observation that the boom-bust pattern to which the Austrian theory applies is characteristic of capital-intensive, market-oriented economies with a centrally directed monetary system.

That the Austrians were and continue to be the *only* school to focus on the market for capital when theorizing about business cycles is also understandable. They were the only school that had a well-developed capital theory. Menger (1950) identified the

different orders of goods in accordance with their temporal sequence in the production process and drew attention to the intertemporal complementary that influenced the goods' value. Böhm-Bawerk (1959) dealt with the time element in terms of "roundaboutness" and demonstrated the inverse relationship between the rate of interest and the degree of roundaboutness that characterizes the economy's production process. Mises (1953) integrated monetary theory and value theory by developing Wicksell's distinction between the bank rate of interest and the so-called natural rate in the context of Böhm-Bawerk's capital theory. The Austrian theory of the business cycle was a natural outgrowth of these developments.[9]

Capital in Rival Theories

Rival theories either had no capital theory at all or had a capital theory that did not integrate well with monetary theory. In the 1930s, Keynes (1964, p. 176) rejected Böhm-Bawerk's theory out of hand—without providing a serious critique of it or even demonstrating that he understood just what that theory entailed. But with the Austrian theory jettisoned, Keynes did not attempt to offer an alternative. As was made clear in reference to his earlier theorizing, the attempt, instead, was to press on with the macroeconomic issues in the absence of capital theory (Keynes [1931, p. 394f.]).

After several decades of macroeconomics without capital, the Monetarists were able to expose many of the fallacies and shortcomings of Keynesian theory. But they were unable to identify those shortcomings that derive from the neglect of capital theory. Monetarism embraced a theory of capital and interest put forth by Frank Knight (e.g., 1934), who had engaged in a tedious and protracted debate with Hayek and other members of the Austrian school. Knight could make no sense of Jevons' interval or of Böhm-Bawerk's roundaboutness. Production and consumption, in the Knightian conception, are not temporally distinct activities. The only relevant distinction, according to Knight, is that between the economic flows of income or utility and the corresponding stocks into which such flows can be capitalized. But to conceive, as Knight did, of capital and interest as nothing but permanent stocks with automatic flows is to abstract from the intertemporal market processes that captured the attention of the Austrians and from the monetary disturbances that may interfere with those

processes. Knightian capital theory, in the hands of the Monetarists, did not provide an alternative basis for integrating monetary theory and value theory; it provided, instead, a device for keeping the two theories segregated.

In recent years, New Classicism (Lucas [1981], Barro [1981]), with its emphasis on rational expectations, has become the most formidable rival to the waning Keynesianism. While the theoretical constructions of the New Classicists differ in fundamental ways from those of the older Monetarists (Hoover [1984]), they share in the neglect of capital theory. These newer constructions highlight the temporal variation in macroeconomic magnitudes, yet the arguments hinge almost exclusively on *wage* rates and the intertemporal allocation of labor. *Interest* rates and the intertemporal allocation of capital are in no fundamental way a part of New Classicism. This incongruity dramatizes the resolve on the part of contemporary macroeconomists not to grapple with theories of capital and interest—even when intertemporal relationships are specifically at issue.

One encouraging development within the New Classical school, however, deserves mention. The assumption of rational expectations, coupled with assumptions of costless information and instantaneous market clearing, implies that a monetary disturbance should not have any systematic real effects beyond the period in which the disturbance occurs. Empirical studies, though, reveal a certain persistence of effects. Some New Classicists (Kydland and Prescott [1982]) attempt to account for this persistence by incorporating "time-to-build" considerations into an otherwise capital-free construction. That is, money-induced decisions to initiate a multiperiod production process affect in systematic ways the decisions to be made in subsequent periods. While time-to-build was added belatedly and only to resolve a disparity between theory and evidence, this development could lead to a reintroduction of capital theory into macroeconomics.

IV. In Lieu of Capital Theory

The Austrians focus on capital markets in their analysis of business cycles while rival schools do not. This much is easily established. But what sort of a macroeconomic construction remains when capital theory is subtracted from business-cycle theory? Answering this question for each of the rival schools helps to identify important differences among them. It also serves

further to demonstrate and emphasize the crucial role of capital in the Austrian theory.

Keynesianism

Although Keynes had sympathy neither for Austrian capital theory nor for the Austrian theory of the business cycle, he did not offer alternative theories of his own. Ambitious as his *General Theory* was, it contained only "Sundry Observations on the Nature of Capital" and "Notes on the Trade Cycle," as announced by the titles of chapters 16 and 22. Now, more than half of a century after the book's initial appearance, Keynesian scholars are still debating whether or not the malfunctioning of capital markets is central to Keynesian theory. The debate gets resolved as soon as a choice is made between focusing on what Keynes left out of his book and focusing on what he actually put in it. The consequences of each choice can be identified in summary terms.

There are no market mechanisms—at least none identified by Keynes—that can effectively allocate resources intertemporally. The rate of interest is determined by the supply and demand for money; the decision to invest is based, in large part, on the groundless expectations held by the business community, or on animal spirits, to use Keynes' own terminology. Not surprisingly, booms and busts occur with the waxing and waning of business confidence. When confidence is on the wane, the demand for labor falls, resulting in widespread unemployment. Wage rates either (1) will not fall because of unions or because of wage rigidities inherent in the market process, or (2) will fall but without making matters any better and possibly making matters worse because of the accompanying fall in the price level, or (3) should not be allowed to fall because of the considerations mentioned in (2).[10] Macroeconomic problems persist until some set of extramarket forces are designed to counteract the undirected and misdirected forces of the marketplace.

With this interpretation of Keynes, the absence of effective markets for capital goods, which derives by default from the absence of capital theory from Keynes' book, becomes the central focus (Garrison [1985]). If there are no coordinating mechanisms that, even in the best of circumstances, can effectively allocate resources intertemporally, then intertemporal markets will be discoordinated. The conclusion follows trivially. There remains

nothing more for capital-oriented Keynesians to do, except for drawing analogies between market economies and kaleidoscopes (Shackle [1974]) or pondering—on the basis of a highly selective exegesis—about what Keynes must have had in the back of his mind (Leijonhufvud [1968]).

As an alternative interpretation, the fact that Keynes' *General Theory* contains no general theory of capital can be taken to imply that his theorizing is based on the assumption of a fixed capital stock and a fixed capital structure (Keynes [1964, pp. 40–45]). This assumption, stated symbolically in textbooks as $K = \bar{K}$, allows the focus of analysis to be shifted to other macroeconomic magnitudes, among which Keynes did posit some definite relationships. Consumption spending rises and falls with —but not as fast as—income: $C = a + bY$ where b is the marginal propensity to consume. This short-run consumption function, in which $a > 0$ and $0 < b < 1$, becomes the keystone of the theory. The remainder of the theory is specified in terms of interest elasticities: the demand for investment funds is interest-inelastic, and the demand for idle money balances is interest-elastic—both perfectly so in the limit.

Keynesian multipliers, which are based on such propensities and elasticities, relate changes in employment to changes in investment spending. The same relationships hold, in this interpretation, whether the investment is undertaken by the business community or the government. The will to spend rather than any more fundamental constraint, such as economic scarcity, is what limits the level of employment and hence national income. The intertemporal pattern of output is traced out as the unpredictable forces in the market for investment goods interact with the largely predictable forces in the market for consumer goods. (Coddington [1982] finds the significance of Keynesian theory in this interaction between the stable and the unstable sectors of a market economy.)

Most modern textbooks on macroeconomics consist of graphs and equations of such relationships gleaned from the *General Theory*'s treatment of money, interest, and employment, given the economy's capital stock. The issue of a changing capital stock is typically relegated to a separate chapter on economic growth, appended almost as an afterthought to the Keynesian chapters. This interpretation of Keynes has given rise to a distinction that stands in the way of reintroducing capital theory into macroeconomics. Macroeconomic theory is implicitly defined as all those relationships that can be identified among

macroeconomic magnitudes on the assumption of a fixed capital stock. Theory involving a changing capital stock is, by definition, growth theory.

Writing three decades after the publication of the *General Theory*; John Hicks undertook a telling of the "Hayek story." He recalled the "time when the new theories of Hayek were the principal rival of the new theories of Keynes" (Hicks [1967, p. 203]) and then he justified his own alliance with Keynes on the basis of the modern definitional distinction. According to Hicks, we see in retrospect that Hayek's theories were not relevant to business cycles at all. Monetary disturbances—money masquerading as savings—could not cause the resource movements from consumer-goods industries to producer-goods industries as suggested by Hayek, because those movements involved actual changes in the capital structure. Actual changes in the capital structure can be brought about only by actual changes in the rate of savings. Hayek was theorizing not about business cycles but about economic growth. Not only had Keynesianism prevailed over Austrianism, it had numbed the ability of at least this one modern macroeconomist to think in terms of money-induced movements within the capital structure which constitute an artificial boom and lead—eventually but inevitably—to an economic bust.[11]

Monetarism

Monetarism has come to be closely identified with the quantity theory of money—so closely that it is sometimes defined narrowly in terms of the positive, virtually one-to-one relationship between the money supply and the general price level. "Inflation is always and everywhere a monetary phenomenon." The phraseology is uniquely Monetarist, but the idea itself has long been shared with the Austrians.

Attempts, even by the Monetarists themselves, to define this school of thought more broadly have been less than satisfying. At one stage of the debate between the two schools, Friedman (1970) undertook to differentiate Monetarism from Keynesianism by reference to the Keynesian-based income-expenditure analysis. In this context, the key differences derive from differences in elasticities. For the Monetarists, the demand for money is interest-inelastic, the demand for investment funds is interest-elastic. If debate between the two schools resolved itself into such a simple empirical question, it could be settled in short

order by consulting the data. If, alternatively, the differences in elasticities are simply a reflection of the short-run orientation of Keynesians and the long-run orientation of Monetarists, then Keynesian-based Monetarism is on weak grounds. The applicability of income-expenditure analysis is restricted by the assumption of a fixed capital stock—an assumption that can hold, if at all, only in the short run.[12]

A more general distinction between the two schools makes reference to underlying *beliefs* about the market system (Leijonhufvud [1981a, p. 297ff.]). Monetarists believe that markets work, that prices and wages are tolerably flexible, that individuals do not suffer from money illusion, and that market expectations will not for long be in conflict with reality. The perversities in the Keynesian vision stem from disbelief on one or more of these counts.

The contrast of underlying beliefs is especially revealing when applied to a particular market, the market for capital goods. Both Keynesianism (interpreted as income-expenditure analysis) and Monetarism leave capital out of account—but for opposite reasons. For the Keynesians, markets for capital goods are so ill behaved (references in the *General Theory* to casinos and musical chairs are relevant here) that nothing much *can* be said about them; for the Monetarists, markets for capital goods are so well behaved (references to the Knightian vision of synchronous production and consumption are relevant here) that nothing much *need* be said about them. It is worth noting at this point that the Austrians occupy a middle-ground position (as they do on so many other substantive issues). (See Garrison [1982].) Equilibrating forces are at work in the market for capital goods, but they are particularly vulnerable to monetary disturbances. Because of the essential time dimension in the production process, a dimension whose relevance is trivialized by Keynes and denied by Knight, money-induced disequilibrium originating in the early stages of production can persist undetected until the production processes enter their final or near-final stages.[13]

Monetarists and Austrians do share a common ground, however, in that they each focus on a self-reversing process triggered by monetary expansion. But with the structure of capital outside their vision, the Monetarist analysis is focused almost exclusively on the market for labor (as in Friedman [1976]). The analysis of intertemporal distortions spelled out by the Austrians in terms of the various stages of production that

make up the Hayekian triangle is supplanted by an analysis of labor-leisure distortions spelled out by the Monetarists in terms of the short-run and long-run Phillips curve. The self-reversing nature of the process identified by the Monetarists and hence the analytical kinship to the Austrians, however, is clearly evident. Money-induced movements away from the natural rate of unemployment set into motion a market process in which changes in perceived wage rates and output prices eventually and inevitably reestablish the natural rate. (Material in the next few paragraphs is condensed from Bellante and Garrison [1988].)

The details of the self-reversing process as described by Monetarists differ categorically from those described by Austrians precisely because of the absence in the former of any disturbances within the structure of capital. A time-consuming production process thrown into intertemporal disequilibrium by a monetary injection is no part of Monetarism. Instead, the self-reversing process plays itself out within the market for labor and on the basis of differing perceptions of the effect that inflation has on the real wage rate. More specifically, northwestward movements along a short-run Phillips curve are produced by a labor market in which the worker believes the real wage rate (reckoned in terms of consumer purchasing power) has risen but in which the employer believes the real wage rate (reckoned in terms of the price of the firm's output) has fallen. The inevitable eastward shift of the short-run Phillips curve is brought about when both workers and employers eventually discover that the real wage rate has in fact not changed in either direction. In symmetrical fashion, deflation or even disinflation produces southeastward movements along a short-run Phillips curve followed eventually and inevitably by a westward shift of the curve.

The Monetarists' version of the self-reversing process is less than satisfying on several counts. First, why should injections of newly created money through credit markets, which affect, in a very direct way, interest rates and hence markets for capital goods, have effects of overriding importance on wage rates? Second, how plausible is an account that relies, in one inflationary episode after another, on chronic and systematic misperceptions of the real wage rate? (Note here that the temporally sequenced stages of production that make up the capital structure add a dimension to Austrian theory that has no direct counterpart in Monetarist theory.) And third, why should it take so long in any given inflationary episode for workers and

employers to straighten out their misperceptions of the real wage rate?

In addition to lacking plausibility, the Monetarist account grossly understates the consequences of credit expansion. If growth in real output prevents the credit expansion from resulting in an increase in the general level of prices, then there are no misperceptions of wage rates and hence—in the Monetarists' view—there is no money-induced self-reversing process. Further, if the account is confined to unskilled labor, then the misallocations would be short-lived and easily corrected. Any actual welfare loss would manifest itself as a lament on the part of workers that they had consumed either too much or too little leisure as a result of the monetary disturbance. If, alternatively, the misallocation of skilled labor is to be taken into consideration, then the focus is shifted to human capital and the Austrian analysis comes into play. The time-consuming development of specific skills and the development of skills complementary to specific long-term production processes are features of a theory that involves an intertemporal structure of both human and nonhuman capital.[14]

New Classicism

A brief stock taking at this point will help to put post-Monetarist developments into perspective. Keynesian theory in all its interpretations makes a first-order distinction between markets for consumer goods, which always perform appropriately in accordance with the fundamentals of supply and demand, and markets for investment goods, which never—or only by accident—perform appropriately. The economy's output as well as the employment of labor in all interpretations of the theory varies in direct proportion to the spending on (private and public) investment goods.

Monetarism, interpreted as Phillips-curve analysis, makes a first-order distinction between capital markets, in which nonhuman resources are allocated efficiently, and labor markets, in which inflation-induced misperceptions of the wage rate can cause temporary but systematic misallocations. The economy's total output in this analysis varies in direct proportion to the employment of labor.

There is no comparable first-order distinction in New Classicism between markets that work right and markets that go wrong. As a first—and sometimes last—approximation, all

markets allocate resources efficiently. In the early and hard-drawn expositions of New Classicism, the assumption of rational expectations implied trivially that all markets are governed, in the short run as well as the long run, by the fundamentals of supply and demand. Stabilization policy as might be conceived and implemented by the monetary authority is both ineffective and unnecessary. Thus, rational expectations in its early applications to macroeconomics did not constitute an alternative to Keynesianism and Monetarism; it simply denied the phenomenon (cyclical unemployment) that the Keynesians and the Monetarists were attempting to explain.

To allow the subject matter back into the analysis of it, the New Classicists had to invent a distinction that could drive a wedge between some actual price or quantity and the corresponding equilibrium price or quantity. The distinction that now dominates in models employing the assumption of rational expectations is that between local knowledge and global knowledge (Phelps [1970], Barro [1976]). A system of island economies is conceived in which prices can be affected both by changing supply and demand conditions in each local economy and by money-supply shocks that have consequences on a global scale. Immediate knowledge about nominal price changes coupled with belated knowledge about money-supply changes gives scope for real prices to deviate temporarily from their equilibrium levels. Monetary disturbances, in this construction, can affect the level of output in the local economy to the extent that nominal price changes are mistaken for real price changes.

The critical role of knowledge—of two kinds of knowledge—allows for an interesting comparison between New Classicism and Austrianism. The New Classicists' objective, often stated with unabashed pride, is to theorize about the economy without recourse to the sort of ad hoc assumptions that characterize other schools of thought. (See e.g., Klamer's conversations with Lucas and Sargent [1983].) Their conclusions do not turn on some supposed rigidity or inflexibility of prices or wages, on some expectational scheme that is at odds with the theory that incorporates it, or on some supposed failure of market participants to take advantage of the knowledge they possess.

The assumption that there is a first-order distinction between knowledge of movements in the money supply and knowledge of other economic magnitudes, however, is just such an ad hoc assumption. What are the relevant constraints and objective functions that determine the length of this lag? Is the

lag constant over time? And why should this particular lag in the acquisition of knowledge have significance that overshadows all others—including the one that characterizes the Monetarists' Phillips-curve analysis? While these questions remain unanswered by the New Classicists, their models must incorporate this or some similar knowledge lag in order to avoid absurd or trivial conclusions—that money does not matter or that money does not matter if market participants base their actions on real factors only.

The Austrians, too, employ a knowledge-based distinction, but not one that requires island economies or any other such fictitious construction. Long before the economics of knowledge was an object of attention, Hayek (1948) made a first-order distinction between two kinds of knowledge. Theoretical knowledge about how the economic system works must be treated differently from knowledge of the particular circumstances of time and place. This distinction does not represent an ad hoc assumption, but rather reflects important insights of the earliest political economists. The message conveyed by Adam Smith's "invisible hand" is that the economic system works without the market participants knowing—or caring—just how. Referring either in general to the structure of the economy or in particular to the intertemporal structure of production that serves as a basis for the Austrian theory of the business cycle, the two kinds of knowledge can be identified as knowledge *of* the structure and knowledge *within* the structure. Alternatively, the distinction is between theoretical knowledge and entrepreneurial knowledge. (For a discussion of the relationship between these two kinds of knowledge and the extent of the overlap, see Garrison [1986, p. 444f.].)

Market participants possess enough entrepreneurial knowledge to make the economy work, but they possess little or no theoretical knowledge. The play-off between knowledge *within* and knowledge *of* the structure has the same analytical significance for the Austrian formulation as the play-off between local and global information has for the New Classical formulation. In both, the distinction between two kinds of knowledge allows for the derivations of results that conform in some degree to real-world observations. But for the Austrians, the distinction is not just an abstract modeling device; it is a recognition of one of the most fundamental features of real-world market economies.

The full dependence in the rational-expectations models on

the time lag between the acquisition of global information relative to local information can be demonstrated by considering the economic structure typically envisioned by the New Classicists (e.g., Barro [1976]). In effect, there is only one commodity being supplied and demanded. The commodity is conceived to be nondurable in the extreme—a service indistinguishable from the corresponding labor that renders it. This construction avoids dealing with any kind of a production *process* or even with a choice between consuming a good now or storing it for later consumption. Also, demanders on any particular island possess the same information as suppliers. This assumption insures that the only information difference that matters is the one between global and local information.

At this point we may legitimately wonder why there would be any trade on such an island? What keeps each individual from consuming his own labor services? There must be something in the nature of the service such that one individual must render it to another. Though several possibilities come to mind, Barro (1976, p. 83) has suggested that we think in terms of "back-scratching services." Trade actually does take place. Still, there is room for more legitimate wondering. What need would such an economy have for a medium of exchange? The usually troubling double coincidence of wants is no coincidence at all: "I'll scratch your back; you scratch mine." At most, money would serve as an accounting device used to keep track of the indebtedness of scratchees to scratchers.

The objective of such primitive models in which individuals live a hand-to-back existence is to facilitate the investigation of the consequences of a monetary injection. And as is conventional in such formulations, it is assumed that the injection takes the form of transfer payments—thus avoiding any interest-rate effects that might occur in a credit expansion. The only possible consequence, then, is that the price of back-scratching services is bid up. The key concern is with how individuals divide their time over the next several periods between rendering the service and consuming leisure as they guess about the cause of the price increase and eventually learn that it is attributable to a monetary shock and not to a change in some real factor (e.g., an increase in itching). Again, there are grounds for wondering. What relevance could an answer to such a question possibly have for understanding the causes of industrial fluctuations in modern, market-oriented, capital-intensive economies?

In the face of such wondering and implied criticism, rational

expectations and island economies are defended not as having direct relevance or as highlighting aspects of the market process that are actually crucial in real-world business cycles; they are defended instead simply as modeling techniques for building analogue economies. If some model, by which is meant a "fully articulated artificial economy," turns out to generate time patterns of unemployment and output that mimic to a first approximation the actual time series for those magnitudes, then we have attained—by virtue of being able to construct such a model—an understanding of those patterns (Lucas [1981, p. 219]). Though the link between building such economic models and understanding actual economics is often implied and sometimes asserted, the methodological reasoning that establishes the link is, to my knowledge, never revealed.[15]

New Classicism might more palatably be defended by an appeal to instrumentalist methodology. The models themselves provide no understanding, but they can be instrumental in our deciding what correlations and time patterns to look for in the macroeconomic data. By construction, however, the models fail to suggest that business cycles may have something to do with the capital structure as affected by movements in the interest rates.

While New Classicists often claim some affinity to the Austrian school, they reject the Austrian theory of the business cycle strictly on empirical grounds. The magnitude of the alleged cause (cyclical changes in the interest rate) is so small compared to the magnitude of the alleged effect (a crisis in the market for investment goods) that the Austrian theory cannot seriously be entertained (Lucas [1981, p. 237]). It is tempting simply to ignore this criticism of the Austrian theory, pointing out that by similar logic a careless smoker could not possibly cause a forest fire. But because the empirical significance of interest-rate effects is so often in question, a more serious and considered response may be in order.

First, a cyclical pattern in observed interest rates is not essential to the Austrian theory. A money-induced deviation of the loan rate from the natural rate is the exogenous triggering device. Further, central-bank policy that maintains constancy in the easily observed loan rate under conditions in which the not-so-easily observed natural rate has risen can initiate the self-reversing process within the market for capital goods as identified by Austrian theorists.

Second, the effects of an artificially low interest rate are not

so much *over*investment as *mal*investment. While the low rate does generally favor investment over consumption, the validity of the Austrian theory does not hinge on the magnitude of this effect in aggregate terms. Low interest also favors particular kinds of investment over others. It favors more durable over less durable capital goods as well as capital goods used in more roundabout rather than less roundabout production processes. These are the effects that are overlooked by simple calculations showing that the demand for investment funds is interest-inelastic.[16]

Third, the crisis manifests itself as intertemporal discoordination that requires a systematic reallocation of capital within the structure of production. Because of the number of relatively long-term production projects undertaken, resource availabilities are not quite sufficient to carry them through. That they are merely not *quite* sufficient is what allows the artificial boom to be sustained over a considerable period without its artificiality being apparent. But that they are *not* sufficient is what makes an eventual restructuring inevitable. The realization that the sustainability of production processes on an economywide basis may be threatened by small but prolonged distortion of the interest rate away from its natural level confers plausibility on the Austrian theory of the business cycle.

New Classicism, Monetarism, and Keynesianism each deal in some indirect way with the intertemporal allocation of resources. Even a casual survey reveals, however, that descriptions and discussions of market mechanisms supposedly relevant are, in lieu of a capital theory, contrived. Only by basing such discussions on some coherent theory of capital is it possible to deal in a direct way with the market mechanisms that, potentially, can achieve intertemporal coordination and with policies that may result in intertemporal discoordination.

V. A Summary View

The Austrian theory of the business cycle stands up well to criticism. The integration of monetary theory with a rich theory of capital involving temporally sequenced stages of production coordinated intertemporally by market mechanisms provides a theoretically sound and historically relevant basis for an understanding of the problem of business cycles. Attention to capital theory gives the Austrians a decided advantage over other schools in theorizing about cyclical movements in

macroeconomic magnitudes—or more generally, about self-reversing intertemporal market processes.

And as it turns out, the attention to—or neglect of—capital theory serves as well as a peg on which to hang some history of economic thought. Fuller understandings of New Classicism, Monetarism, and different renditions of Keynesianism are made possible by noting how they did or why they did not take capital into account. Except in Keynesian theory, which lacks the very coordinating mechanisms that the Austrians have for so long illuminated, intertemporal coordination gets achieved, however well or badly, in some market process. If the coordinating mechanism does not take the form of an interest rate that determines the intertemporal allocation of capital, then it must take some other form—correctly or incorrectly interpreted price changes that cause individuals to store money or make some adjustment in their consumption behavior; perceived or possibly misperceived wage rates that allocate the employment of labor over time; or investment activities that are governed by the waxing and waning of business confidence.

Austrians are often criticized for placing too much emphasis on or according too much importance to their business-cycle theory. Why all the attention to nineteenth-century business cycles or to the Great Depression, which in so many respects was a unique historic event? While the Austrian theory does have a direct applicability to these historical episodes, it has broader significance as well. Austrian capital theory amounts to a theory of intertemporal coordination; Austrian business-cycle theory (that is, the analysis of the effects of an exogenous monetary expansion in the light of Austrian capital theory) amounts to a theory of intertemporal discoordination. And even more broadly, calling attention to the Austrian theory of the business cycle constitutes an appeal to the economics profession to put capital theory back into macroeconomics.

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[1] The concept of involuntary unemployment, for instance, is found to be meaningless in the context of New Classicism and its equilibrium models of the business cycle. “In these models the concepts of excess demands and supplies play no observational role and are identified with no observed magnitude” (Lucas [1981, p. 287]). For a critical survey of this and similar aspects of New Classicism, see Yeager (1986, pp. 382–86) and Leijonhufvud (1986, pp. 418–19).

[2] Although Rothbard has written extensively on the Austrian theory of the business cycle, Tullock’s critique draws exclusively from “Economic Depressions: Their Cause and Cure,” most readily accessible in Mises et al. (1983). Tullock references the original publication by Constitutional Alliance, Inc., which he reports as having no publication date. My copy is dated 1969.

[3] Leijonhufvud’s analysis highlights disturbances and adjustments and downplays the point that the disturbance of the economy from its natural growth path may be either in the positive or the negative direction. If we were to focus on this positive/negative distinction and to divide the adjustment process into an initial phase and a final phase, we could categorize Leijonhufvud’s cycles as *X/N* or *N/X*. The first category would include a positive disturbance caused, say, by an increase in the money supply, which is eventually rectified as prices are adjusted upward to accommodate a higher level of nominal cash balances; the second category would include a negative disturbance caused, say, by an increase in money demand, which is eventually rectified as prices are adjusted downward so as to produce a higher level of real cash balances.

[4] Tullock sees monetary stimulation as analogous to the stimulation of agriculture brought about by USDA programs and to the stimulation of industry as might be brought about by a system of taxes and subsidies. The analogies fail, however, because of the absence in USDA programs and tax/subsidy schemes of any self-reversal. “Suppose that the government taxed consumer goods and used the money to subsidize investment. Suppose further that after a while it stopped the subsidy” (Tullock [1987, p. 77]). The “Suppose . . .” followed by “Suppose further . . .” is a characteristic of disturbances in the *X/X*

category. Hence, distortions caused by such a sequence of fiscal policies are categorically different from distortions caused by monetary stimulation.

[5] In defending his own account of the boom-bust sequence against a challenge by John Hicks, Hayek (1978) drew attention to the first and third considerations spelled out here, the first in terms of the absence of perfectly competitive conditions in the market for loanable funds and the third in terms of "fluid equilibria." Though responsive to Hicks, whose objections were based on comparative-statics analysis, Hayek overlooked the potentially exacerbating effects of rational expectations that are revealed by comparing the dynamics of the production process to the dynamics of a chain letter.

[6] As an alternative illustration of all three considerations, note that when the government discovers a counterfeiting ring, it immediately shuts it down. Does the New Classicist view imply that accurate and timely publication of the total money supply inclusive of the ring's contribution would be an equally effective policy?

[7] It is ironic, in view of these empirical roots, that the Austrians are so often accused of having no empirical foundation for their business-cycle theory. What is true is that the Austrians have always rejected the modern positivists' strategy of fabricating wholly abstract models and then mining the available statistical data to determine whether such models may be related in any way to real-world events. For the Austrians, history (which includes but is not limited to statistical data) and theory (which helps to make history intelligible) are complementary disciplines (Mises [1969]).

[8] Though concerned with chronic resource idleness rather than with an unsustainable boom, Keynes lamented the loss of commitment brought about by the emergence of organized capital markets. "The spectacle of modern investment markets has sometimes moved me towards the conclusion that to make the purchase of an investment permanent and indissoluble, like marriage, except by reason of death or other grave causes, might be a useful remedy for our contemporary evils" (1964, p. 160).

[9] Tullock (1987, p. 78, footnote 8) objects to Rothbard's account of the business cycle on the grounds that roundaboutness in investment occurs in the depreciation of plant and equipment rather than in some more narrowly conceived production process. As an empirical matter, this claim may well be correct. In the earliest modeling attempt by Hayek (1967), the

focus was confined to a continuous-input/point-output production process. This construction allowed the highlighting of the time element in the production process without involving the complications of durable capital. Applications of the theory, of course, require that the time element in all its manifestations be taken into account. Tullock is suggesting, in effect, that a model involving depreciating capital goods would be more realistic and hence more directly applicable to actual production processes.

Tullock's claim (p. 76) that "the producer goods industries are always a fairly small part of the economy" is puzzling. Surely, industrial economies are to be distinguished from primitive economies in terms of the size—fairly large and fairly small, respectively—of their producer-goods industries. In any case, the problem of intertemporal coordination can be incorporated into economic theory by distinguishing between relatively more time-consuming and relatively less time-consuming production processes.

[10] Keynes appears to be adopting a strategy usually confined to the legal profession: "My client didn't borrow your urn; it was in perfect condition when he returned it; and it was already broken when you lent it to him." Keynes was "arguing like a lawyer" that the profession's attention should be directed away from wage rates and toward interest rates. This view of Keynes is consistent with Leijonhufvud's (1968).

[11] An alternative interpretation is that opponents of the Austrian view have pursued, in effect, a divide-and-conquer strategy: sort out that part of the Austrian theory that looks like fixed-capital macroeconomics and pit it against Keynesian theory; sort out that part that looks like the economics of capital accumulation and pit it against neoclassical growth theory. Neither part fares well on its own. The key to the divide-and-conquer strategy is the working hypothesis that capital is homogeneous. Lachmann identified this battleground and recognized the significance of the battle more than thirty years ago:

> Once the homogeneity postulate has been abandoned the distinction between growth and fluctuations loses its meaning. The distinction finds a place in a theory which confines itself to asking whether and to what extent existing resources are being used, whether, and perhaps at what speed, such resources can be augmented, and what are the

> circumstances in which such augmentation is likely to take place. Once we have learnt how to ask how, and in what order, existing resources are being used, and what are the implications of such multiple use, once we have begun to understand the importance of the concrete form of resources in limiting the scope of multiple use, we can easily dispense with the all too simple distinction between economic growth and cyclical fluctuations. (Lachmann [1978, p. 112]).

[12] Leijonhufvud (1981b, p. 140ff.) rejects the elasticity-based distinction between Keynesianism and Monetarism: demands for liquid assets and for investment funds are not *always* characterized by some particular elasticity. Each is sometimes elastic, sometimes inelastic—depending on the state of expectations and the circumstances created by the particular policy regime. From an Austrian viewpoint, Leijonhufvud can be faulted only for a sin of omission. Is it not more instructive to call attention first to the intertemporal structure of capital, which is ignored by both the Keynesians and the Monetarists, and then to expectations and policies that influence the allocation of resources within that structure?

[13] Some Keynesian scholars will undoubtedly object to the claim that Keynes trivialized the time dimension of the production process. Yet in his discussion of the nature of capital, he suggested that a given process has all sorts of attributes—which include "smelliness" as well as "roundaboutness." No single such attribute, according to Keynes (1964, p. 215), has any special claim on our attention. Keynes's deep-felt concern about "the dark forces of time and ignorance that envelop our future" (p. 155) is expressed several chapters earlier in a discussion of long-term expectations. The order of the two discussions is revealing: Keynes deals with expectations about long-term rates of profit without having brought into view the proximate objects of those expectations—the capital goods that give concreteness to the structure of production.

[14] The social losses attributable to monetary disruptions are not at all accurately measured by unemployed labor (Wagner [1979]). Some distortions of the capital structure may involve no unemployed labor at all. Conversely, labor employed to undo such distortions can hardly be counted—in a broader context—as social gains. Tullock's claim (1987, p. 77) that money-induced

distortions of the capital structure should, according to his understanding of the Austrian theory, give rise to *higher* living standards simply ignores the intertemporal discoordination identified by the Austrians. It is true that if we reinterpret the theory in the context of a Knightian stock-flow conception of capital, then we can argue that monetary expansion forces individuals to forgo part of the consumption flow in order to add to the capital stock, after which the flow is permanently higher. But such an intertemporal distortion of the flow of output cannot, on the whole, be considered welfare-enhancing.

[15] Assertions by Lucas (1981, p. 219) are explicit:

> One exhibits understanding of business cycles by constructing a *model* in the most literal sense: a fully articulated artificial economy which behaves through time so as to imitate closely the time series behavior of actual economies. The Keynesian macroeconomic models were the first to attain this level of explicitness and empirical accuracy; by doing so, they altered the meaning of the term *theory* to such an extent that the older business cycle theories could not really be viewed as "theories" at all.

[16] Leijonhufvud (1986, p. 417), who claims to have been overexposed to the Austrian theory, rejects that theory on the basis of such simple calculations involving high levels of aggregation: "My trouble with ABC [Austrian business-cycle theory] is that its . . . falsifiable content has been falsified. According to ABC, inflation should produce an overinvestment boom. The stagnation decade of the 1970s does not fit: it gave us inflation but no acceleration of capital accumulation." But see Leijonhufvud (1976) for a more thoughtful discussion of the relationship between theory and evidence.

A Subjectivist Perspective on the Economics of Crime

Samuel Cameron

Inspired for the most part by the Chicago faction, orthodox economists have embarked on a considerable amount of empire building in the past two decades. They have purported to show the usefulness of their approach to problems such as sex, marriage, divorce, crime, abortion, and church attendance. (See McKenzie and Tullock [1978] and Radnitzky and Bernholz [1987] for textbook demonstrations of this.) On a cynical level, one might regard this empire building as a vehicle for insuring the expansion of the number of Ph.D. topics and publications to satisfy the career needs of the increasing supply of economists. Empire building is particularly suitable for such a purpose as there usually awaits the invader a large body of data that was previously unexplored or "inadequately" explored by other social scientists using tools with less cutting edge than those of the econometrician. Motives may not matter a great deal if the economic approach is in some sense useful in the areas into which it has been extended. This begs the prior question as to whether the orthodox economic approach is not potentially misleading on traditional topics. Subjectivist economists have long contended that it is (Yeager [1987], Bellante [1983]). This is the point of departure for this article as my contention is that the fallacies attendant upon neoclassical hubris have permeated the majority of research on the economics of crime. Not surprisingly, this point has been made previously by sociologists (see the comments in Rottenberg [1973] and also Glaser [1977]) and radical economists such as Gordon (1971), although Gordon simply restates propositions from traditional sociology and criminology that he then designates radical political economy.

This first section sketches the general equilibrium model of crime employed in the literature.[1] The first equation is the "crime-supply" equation, which relates the amount of crime to a set of variables intended to capture the costs and benefits of engaging in criminal activity rather than leisure or legal activity. These variables are of two types. The first set is exogenous, consisting of items that measure the wealth generated in

noncriminal activity and the wealth obtainable from crime if the perpetrator is not captured or punished. The second set comprises variables indicative of the certainty and severity of punishment such as arrest (or clear-up) rates, conviction or imprisonment rates, police; manpower, and expenditures. Most studies include some but not all of the punishment variables and treat them as endogenous. Usually the only endogenous variable is the arrest-rate variable. Thus the second equation is usually designed to explain the arrest rate. This is often labelled a police-production function. As police production is heavily labor-intensive, it is really a single-factor police-production function with the output (arrest rates) being related to the volume of police resources. Other exogenous variables are included to allow for differences in the nonlabor constraints across regions. For example, population density may influence the cost of making an arrest ceteris paribus. In some cases, an endogenous variable in the form of the crime rate is included as a "work-load" variable.

The rest of the model concerns the derived demand for instruments of crime prevention/reduction. The usual third equation is a demand-for-police function where policing is treated as an intermediate semipublic good that generates lower crime rates through the second equation. Demand is thus a function of the crime rate, the "price" of a unit of policing, and income. The usual operational model stops here although some consider a fourth equation to take account of the operation of the judicial system. This equation may treat sentencing as a function of the crime rate, constraints of available prison resources, and so on. In neoclassical terms, this might again be termed a production function although this is rather dubious terminology, as will be argued later.

The neoclassical general-equilibrium model recognizes many of the feedbacks between crime and responses to it plus the need to solve the problem in statistical work of identifying the structural equations. In the econometric work, the problem is "solved" by arbitrary exclusion of some exogenous variables from some equations. This weakness need not detract greatly from the apparent attractiveness of the approach for policy making provided we look only at exogenous variables as the impact of these can be assessed without complication through the reduced forms of the model. Policy analysis derives some of its credibility from the underlying theory that has been used to motivate number-crunching exercises. We now look critically at this underlying theory.

Superficially the theory of criminal activity is a subjective one as it derives allegedly from subjective expected-utility theory according to which decision makers choose on the basis of the weighted average utility from success or failure in some act. The weights are the subjective probabilities that the individual attaches to outcomes. In the case of crime, the relevant outcomes are states where some punishment is experienced and the punishment-free state of escape from detection. Following the Chicagoan methodology of Becker and Stigler (1977), all individuals obey the same calculus and even have the same utility function, which is unchanging over the life cycle. Anyone will, in this model, become a criminal if the price is right; if the prices cease to be right, people will cease being criminals. Entry and exit into and out of crime are symmetrical. It is thus mistaken to talk about criminals as all individuals have ex ante criminal intentions; whether or not they are observed ex post to perform criminal acts simply depends on the values of the relevant constraints and expectations in the time period under consideration.

There are at least two important subjectivist criticisms of the crime-supply function that come to mind even before we question the validity of the supply-function concept in this context. First, the econometric work and the conclusions drawn from it pay no more than lip service to the notion of subjective expectations. It is hard for the situation to be otherwise as measures of criminal expectations are not used. The probability of being caught is represented by the arrest rate for the crime under consideration. This ratio is simply the total number of arrests divided by the total number of crimes. With a bit of difficulty we might accept this as a measure of the *objective* expectation of capture for the average individual. Even so there is no guarantee of a monotonic stable relationship between the arrest rate and subjective expectations of capture; even if a criminal knows for certain that the aggregate arrest rate has risen, he may not revise his personal capture probability because he does not perceive himself as similar in characteristics to those being arrested. The situation is not analogous to other risk situations such as that of driving along a road that is an accident black spot; all drivers coming on to this from a relatively safe road would perceive themselves as at increased risk. Where we move to a regime of higher arrest rates, some criminals may perceive their own expertise as sufficiently great that they are still at the same risk as before (presumably a very low one).

Using a subjectivist perspective, we ought to ask what a rise in arrest rates means to the individual criminal; in part it conveys information that the given stock of criminal methods is less efficient than formally thought and as such it may prompt a change in *modus operandi* to perform the same number of crimes without appreciably greater risk (cp. Cook [1979]).

The second criticism is that the concept of subjectivism in the subjective expected-utility approach is restrictively static. There is no explanation as to where those contemplating crime get their expectations although some empirical work (McPheters and Stronge [1974], Bahl et al. [1978]) grafts on a crude adaptive expectations mechanism without giving any crude rationale for its use.[2] The unsatisfactory treatment of expectations is promoted by the symmetry of entry and exit just discussed. The expectations held by different individuals will depend on their position with respect to the crime process. Someone who has never performed a criminal act in the past can only get his expectations from others who have or from very general sources such as newspaper reports or anecdotal evidence. It is doubtful that very meaningful expectations can be formed from these sources. An individual's first crime is unique to the individual despite the banality of its appearance to some criminologists or economists. In some respects, it is an act of investment. If performed with others, the individual may learn crime-relevant techniques "on the job." Regardless of the organizational setup of the crime, the individual will learn about the risks of capture, his own feelings of stress or enjoyment at participating in a high-risk stigmatized activity, methods of escape, and perhaps the problems and returns involved in attempting to dispose of stolen property. Naturally the last of these does not apply to white-collar crime such as computer fraud, although it is replaced by the experience of learning how to dispose of income that others would not expect one to have without drawing attention to it. The preceding experiences cannot usefully be anticipated; it is mainly through participating in an act of crime that expectations can be developed. Vast numbers of people respond to the problem of forming precrime expectations by imagining the worst, viz. that the guilt will be so unbearable that a life of crime will prove intractable and/or that they will be so incompetent that they will be caught. If such extreme risk aversion were widespread in the population and stable over time, there would be no criminals whatsoever. Why then do some people commit crimes? The orthodox answer

would rely on rational expectations so that the mean of the distributions of guilt, ability to escape detection, and so on would be decisive. It is hard to see how these distributions can have much meaning for the potential criminal as they relate to those who have already crossed the barrier from perceiving themselves as noncriminal into perceiving themselves as criminals. Either some people simply hold optimistic expectations about becoming criminals or there are some other factors influencing entry to crime.

Optimistic expectations may arise from simple ignorance and/or upbringing in a particular cultural milieu i.e., some individuals may have an excessive confidence in their own ability in untried arts and also downplay the stress of living under the shadow of guilt. In a subjectivist view, it is perhaps too simple to think of there being separate groups of individuals with optimistic or pessimistic expectations. All individuals may continually entertain both scenarios alternately, facing a perpetual need to resolve the conflict. The resolution cannot be made in the way described in orthodox economics as the relevant probabilities can only be known through repeated sampling; it is not possible for an individual to repeatedly sample crime without engaging in some. Once some, even if only one, crime has been sampled, there will be adaptations in the behavior of the individual. Reversion to previous behavior is not simply symmetric. Having once crossed the barrier into crime, one has made some investment in being a criminal in that bearing the burden of guilt might be considered a form of overhead capital[3] that has no alternative use in legitimate markets. Put simply, the difficulty of performing the second crime should be much less than that of the first as stressful imponderables have now entered the realm of the ponderable. This is providing that the first-time offender is not caught. The effect of capture depends on the response of law enforcement agencies. For very young offenders and minor infractions, severe warnings without punishment may serve as a deterrent sufficiently powerful to dissuade the offender from ever making another attempt. Publicly visible punishments may serve to enhance the attractiveness of criminal activity to the individual in a number of ways. Empirical workers such as Myers (1983) have noted that the stigma of past convictions and the “training” effects of prison will work to shift the balance of advantages to crime rather than legal activity. We may further note that conviction may help cement an individual’s previously uncertain self-image. It might

be instructive to liken the situation to that of becoming an entrepreneur. In economic models, the entry to entrepreneurial activity is simply based on comparisons of costs and benefits with alternatives. Becoming an entrepreneur involves much more than this in that it may satisfy an individual's needs for power, exercise of creativity, excitement, social importance, and so on. So it is with crime. In the case of supplying illicit goods and services, the criminal may see himself as socially beneficial in correcting government attempts to subvert the market mechanism. Where the crime involves theft or transfer from the incomes of others, the criminal may perceive himself as more clever than other people. Such activity may be parasitic, if the criminal exploits other individuals who have submitted themselves to the restrictions of market discipline. Punishment may serve to crystallize to the individual that he is acting in the just mentioned roles. In the prepunishment period, an individual may be undecided over his relationship to legal and illegal activity. Punishment modifies perceptions by revealing to the criminal that he is now perceived as a criminal by the rest of society. In short, conviction and punishment may provide the subjective push that is needed to generate the process of a criminal career.

The criminal career involves entry at an early age followed by changes in the volume and type of crime as the criminal matures; eventually individuals may drop out of crime altogether when they age sufficiently (Blumstein and Cohen [1987], Cameron [1987]). Traditionally the criminal career idea has not permeated the work of economists to any great extent. This does not mean that a conventional economic analysis of it is not possible.[4] Such an approach could be developed by taking account of learning and information acquisition. As time passes, a criminal learns about the techniques of crime and the available opportunities for crime from other criminals. Punishment plays a special role in this as the prison is a veritable university of crime where the tyro criminal has an opportunity to learn from the past successes and failures of masters of the art. In the Chicago approach, entrants to crime are rational utility maximizers with time-invariant preferences; this implies that they should purposefully get arrested in order to obtain entry to prison! The subjectivist critique is that this does not happen because, as I pointed out, entry to crime is an act of resolving conflict in an environment where risks are not known because of the absence of repeated sampling and the substantial uniqueness of each

person's entry. Mixing with more experienced criminals cements the decision to become a criminal, but it is not the by-product of a deliberate decision to obtain human capital by going to prison.

Subjectivist critique can shed some light on correlations that have puzzled criminogenic economists. Although the belief does not automatically follow from orthodox theory, economists have held strong expectations that all punishment and probability of detection variables should deter crime. It has often been found (see Cameron [1988]) that prison correlation may be explained by the "training" effects. The positive correlation with police arises in almost all studies that insert the level of policing directly in the crime-supply equation in place of the arrest rate. Interestingly, Sandelin and Skogh (1986) include the police *and* arrest variables in the supply of property-crime equation. They find that the police variable is negatively related to the crime rates, but the arrest rate is positively related to the crime rate. Their explanation for this contradiction of their expectations is the weak post-hoc one that "criminals react to the size of the police force rather than the arrest rate" (p. 555). This is even self-contradictory as the arrest rate did influence crime rates with a significant positive correlation. It is clear from our earlier discussion that these allegedly puzzling correlations are to be explained in large part by the failure of economists to measure criminal's subjective expectations in the subjective expected-utility model. Further, it is conceivable that high levels of punishment and/or policing generate an increased predisposition to criminal behavior. There are two ways in which this may happen. First, capturing inexperienced criminals at low-skill crimes may lead to greater high-skill crimes in the future when they have accumulated human capital.[5] Second, the frequency of formal contacts with police officers when engaged in acts that may be treated as criminal could tip the scales in favor of a subjective evaluation of oneself as criminal when the conflict over individual identity is being resolved.

An additional difficulty is that the arrest rate is arguably not a very good measure of the objective probability of capture for an individual. Most of the difficulty arises from the fact that arrest rates are not objective measures such as temperature or weight; indeed, they are not even pseudo-objective measures such as gross national product. Rather, they are the outcome of administrative statistics controlled by the police. This is more appropriately dealt with later in the context of police production.

My final comment on the individual supply-of-crime

function concerns the problem of whether it is meaningful to conceive of such an entity at all. This has been hinted at in an econometric critique of Ehrlich's work on capital punishment. Forst, Filatov, and Klein (1978, p. 343) comment:

> His theoretical model is much like that used to derive specifications for demand and supply functions in the economic analysis of production and consumption. In that respect, we find his theory strongly contrived, i.e. *set up in an essentially imitative way vis à vis the design of economic theory that is used to generate specifications of econometric models. We have doubts about the insight that this approach is likely to bring to an understanding of criminal behavior*. (emphasis added)

Unfortunately the authors of the preceding proposition choose not to expatiate. There is a subtle methodological point concerning the possibility that *all* economic models are really constructed by analogy with markets because the institutional environment of most commodity exchange is not a market in any sense. I shall not pursue this here, but shall concentrate instead on the matter of how much criminal activity departs from other supply behavior such as consumer goods or labor time. The most obvious point of departure is that there is no demand for the supply of criminal effort except in the case of demand derived from the need of some criminals to have others work with them. There is complete market failure in the literal sense that the potential targets of crime do not have an offer curve of how much they are willing to pay for protection from victimization. Even in situations of extortion, the contract is nonenforceable (i.e., the victims have no recourse if the extorters demand a pay raise outside the initial agreement). Given the general absence of direct trade between victims and criminals, the demand has to be derived from the demand for protection against crime. Suppose that all households could at sufficiently low cost procure 100 percent effective protection; then the supply of crime would vanish. As protection is necessarily less than 100 percent effective, there is scope for supply of crime, which should vary in response to the effectiveness of protection. If the supply-function concept is meaningful here, then shifts in the "demand" for crime in the form of locks, burglar alarms, and so on should influence the level of crime through their impact on the expected rate of return. As pointed out in connection with policing, there are

formidable difficulties for the criminal in knowing this. Suppose improved locks become general. How are criminals to know this? Only learning by doing (or learning from others doing) will suffice; by the time a criminal has reached the point where he discovers a superior lock in place, he will already have made investments of time, planning, equipment, and so on and taken risks—all of which will come to nothing if he simply gives up at this point. There is then some incentive to alter the planned mode of entry to something that may be riskier and less rewarding but still the source of net gains. This arises because of the inapplicability of competitive supply functions. Crimes are not performed at the margin where the rate of return equals the marginal productivity of the criminal.[6] An increase in the supply of criminals need not decrease the expected rate of return as there will, at any time, be unexploited opportunities for crime at the prevailing rate because of risk. It is hard to visualize the process of competition that would occur in the "crime industry"; either criminals would have to turn up at the same location and fight over it or the more efficient criminals would somehow be able to deter the less efficient from poaching on their intended targets. Neither situation seems plausible except for highly organized crimes. We are forced to conclude then that the notion of an aggregate supply function of crime does seem to be constructed by analogy with markets. There do *not* seem to be competitive processes at work in the crime sector. In a trivial sense, we can talk about supply functions in the sense that criminals obviously allocate (supply) some time to crime rather than rival legitimate activities. The existence of a supply and the construction of analogies to prices does not however automatically guarantee that the supply function concept can be legitimately employed.

We now consider the underpinnings of the second equation in the orthodox general equilibrium approach to crime.[7] This equation relates the resources allocated by the community to the police sector. A peak of objectivism is reached here as the usual work bypasses all questions of coordination by the public-sector managers who are analogous to entrepreneurs. The police-sector managers are assumed to passively translate the given inputs into the outputs that the community demand function has stipulated. Under such circumstances, there is a straightforward correspondence between the production and cost functions achieved through objectively given production processes and exogenously set factor prices. The idea of an objective cost

function in the private sector has been criticized by Yeager (1987, p. 16) on the grounds that "cost curves are no more objectively given to business firms than are demand curves for their products. A large part of the task of entrepreneurs and managers is to learn what the cost (and demand) curves are." This applies with even greater force to the issue under consideration.

Subjectivism enters the analysis of police production in the shape of the difficulty of identifying police output. Presumably police output is whatever the community demands and uses to monitor police performance. In conventional economic terms, output should represent value added. The econometric work on police-production functions (see Cameron [1987a]) uses arrest or clearance rates as the output measure. It is hard to see this as adding value to anything. It may serve to reduce the loss of value from crime if it acts to deter criminals. Even if this does occur, there are difficulties in translating this into value added for the consumers (potential victims) of police services. In the orthodox approach (see Bartel [1975]) they too would obey the calculus of subjective expected-utility theory. The objections to this approach are the same as those to applying it to the performance of crime; indeed, their force may be even greater. How can a firm or household possibly know the relationship between the level of protection and the probability of victimization? Learning about it through random sampling seems rather difficult. Suppose a householder deliberately varied his level of protection to derive the supply of crime to his property. Over a large range of levels of protection, no crime would be observed at least in part because crime is a relatively rare event. If a crime did occur, how would the householder separate the random and systematic elements in its occurrence (i.e., how is he to know that the crime would not have taken place whatever the level of protection)? The learning that may take place from having been victimized may well suffer from built-in obsolescence. If the mode of entry and so on of the criminal lead to improvements in the type of locks and so forth, criminals could well recognize these changes and adjust their mode of entry to render them ineffective. Casual empiricism suggests that value added to the consumers of police "production" is really just reassurance against a feeling of fear (Cameron and Golby [1987]). This is much too vague and subjective to be satisfactorily rendered into the concept of a police-production function.

The problem of identifying and measuring value added from

police work brings difficulties for those who actually perform it. Someone involved in a simple manufacturing process can easily see what is expected of them and gauge how well they are achieving it. Further motivation can readily be stimulated by appropriate incentive mechanisms. With police work, the expectations entertained by workers are much more nebulous. Satisfactory service to the community requires entrepreneurial acts of innovation and marketing by the ultimate managers of the police force. They cannot simply sit back and administrate the performance of clearly stipulated activities. It is not clear *even to the workers in the police service* what is the precise functional relationship between any of their acts and the level of crime; indeed, it is unlikely that they perceive that any such relationship exists. The most appropriate concept of police output is as information in the minds of the community. Thus the police force managers may generate an increase in welfare through process innovation such as developing programs of "community policing" or reallocating resources (e.g., putting more officers on patrol in an area perceived as dangerous even though there may not be any actual changes in the victimization probabilities of members of the community). In a restricted sense, we might see this as a conventional response of producers to demand conditions where the product demanded is highly intangible. With an intangible product, the consumer should employ some proxies for the true level of output. Provided that these proxies are sufficiently correlated with "true" output, the conventional analysis should apply. The important difference here is that production deals almost entirely *with the generation of subjective perceptions*, not with products that are viewed differently by different consumers but that still have an objective quantifiability. Consumers are not simply "rationally ignorant" as are voters in the public-finance literature (see Browning and Browning [1987, chapter 3]), who could find out all they want to know about public-sector output but are deterred by prohibitive costs of information gathering and processing. Rather, consumption of police output can never be fully assessed no matter how long or how expensive the search of consumers. To a great extent, this is due to the protean quality of such output; the flow of information from the police administration to the public largely determines the perception of output.

The management of the police sector also requires attention to police personnel at lower levels of the organization. Satisfaction of community requirements dictates the hiring and

retention of officers who will contribute positively to the production of feelings of security. In the conventional approach, the entry to the police sector is again based on subjective expected utility with individuals making a career choice based on the discounted expected lifestreams of earnings from different occupations. The pecuniary returns to police work are much more easily estimated than the nonpecuniary. Joining will be influenced by psychic income derived from the components of danger, glamour, social contribution, and so on. In the orthodox approach, these would be convertible to monetary equivalents that would enter into the calculus of subjective expected-utility theory weighted by their perceived probability of occurrence. The psychic-income components will be valued differently by different individuals according to their personality type. Yet again we have the problem of how a measurement of that which is to be valued is obtained. Individuals cannot sample the nonpecuniary returns of police work without joining. The major alternative source of information is popular-media portrayals of the life of police officers. These give excessive emphasis to the amount of action and excitement involved as well as portraying an image that crimes are continually being solved by the application of thought and bravado. Such distortions serve the function of perpetuating the idea that police inputs do generate tangible outputs. In addition, they help attract individuals in search of an active, socially useful life. A study by Van Maanen (1975) shows that the morale of recruits drops steadily after joining. This may be characterized as learning about the true nature of police output. Bearing in mind that managers will seek to satisfy the need of citizens for reassurance, there is an incentive to motivate lower-level workers to help perpetuate the feeling that “something is being done about crime.” They are more likely to perpetuate this feeling the less they themselves question the proposition that something can be done. Avoiding such questioning dictates an emphasis on action and variety rather than appraisal in day-to-day police work. A successful police-sector manager/entrepreneur would therefore divert administrative work such as record keeping to civilians rather than police personnel as a high ratio of time on administrative duties to time on “real” police work will promote poor self-image by officers with a consequent effect on their public profile. A similar process applies to mundane civil offenses. (For example, in England, parking violations were originally part of police work, but were diverted to civilians in uniform in the 1960s.)

Again, the manager should allocate his worker's time in a way that makes their job seem more important and relevant. As an example, resources might be moved from less exciting duties to undercover drug investigations. In a neoclassical model, the ratio of these two types of activity would be determined by their exogenously given societal marginal valuations. The marginal valuations are not of course exogenous as they are determined by the control exercised by police managers over the flow of information. It follows from all of the preceding that the cost structure of police operations is not given, but is a product of exploratory enterprising behavior by the police-sector managers.

In the general equilibrium model of crime, deterrence is separated into two branches: police (who mostly determine the probability of punishment) and the judicial system (which mostly controls the severity of punishment). We have thus far not discussed the latter. There is little to add by way of a subjective critique. In the majority of papers estimating crime models, sentencing is treated as exogenous (for exceptions, see Carr-Hill and Stern [1979] and Nagin [1981]) although there is a separate literature on the welfare economics of crime that analyzes substitution between punishment probability and severity in the welfare function.[8] The determination of sentences by judges is subject to the same kind of filtering of citizens' subjective perceptions of the costs of crime as goes on in police departments. The major difference is that judges do not influence the flow of information to the citizens. Hence it is difficult to discern elements of entrepreneurship in the judicial role. The appointment of judges is not generally contingent on the accuracy of their estimates of public perceptions; only ludicrous deviations from public sentiment such as letting brutal murderers walk free in situations where there are no mitigating circumstances would be likely to lead to deposition. In situations where they are appointed rather than elected, judges are not in a very strong position to display adaptive behavior as they have little opportunity (unlike the police) to observe the consequences of their actions.

A vast literature exists on the economics of crime, the great bulk of it being constructed by analogy with neoclassical general-equilibrium models of commodity-market and factor-market interdependence. I have appraised this approach in a subjective light. The main conclusion of this look is that for the most part, the economics of crime has been methodologically misguided. From time to time in the literature, observations have been made

that show recognition of this, but these have never been integrated in a meaningful way.

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[1] For examples of the implementation of the general economic models of crime, see Buck, Hakim, and Spiegel (1985), Avio and Clark (1978), Carr-Hill and Stern (1979), and Ehrlich (1972, 1973, 1975, 1981).

[2] A rationale for an adaptive model is provided by Buck, Hakim, and Spiegel (1985).

[3] The same kind of argument is given by Gilad, Kaish, and Loeb (1987) as an explanation for the general manifestation of cognitive dissonance in economic decision making.

[4] A treatment on such lines is given by Friedman, Hakim, and Spiegel (1988), who do not answer the question of why rational utility-maximizing criminals do not go to prison on purpose "to learn."

[5] Some evidence suggestive of this is presented in Cameron (1987b).

[6] This is not often explicitly stated in the preamble to the presentation of regression results, but see the theoretical papers of Usher (1986, 1987), which do make clear this property of neoclassical general-equilibrium crime models.

[7] The discussion in this section also draws on the third equation as this makes it easier to express the points being made.

[8] The welfare literature is reviewed in McDonald (1987).

The Hermeneutical Invasion of Philosophy and Economics

Murray N. Rothbard

In recent years, economists have invaded other intellectual disciplines and, in the dubious name of "science," have employed staggeringly oversimplified assumptions in order to make sweeping and provocative conclusions about fields they know very little about. This is a modern form of "economic imperialism" in the realm of the intellect. Almost always, the bias of this economic imperialism has been quantitative and implicitly Benthamite, in which poetry and pushpin are reduced to a single-level, and which amply justifies the gibe of Oscar Wilde about cynics, that they [economists] know the price of everything and the value of nothing. The results of this economic imperialism have been particularly ludicrous in the fields of sex, the family, and education.

So why then does the present author, not a Benthamite, now have the temerity to tackle a field as arcane, abstruse, metaphysical, and seemingly unrelated to economics as hermeneutics? Here my plea is the always legitimate one of self-defense. Discipline after discipline, from literature to political theory to philosophy to history, have been invaded by an arrogant band of hermeneuticians, and now even economics is under assault. Hence, this article is in the nature of a counterattack.

To begin, the dictionary definition of hermeneutics is the age-old discipline of interpreting the Bible. Until the 1920s or 1930s, indeed, hermeneutics was confined to theologians and departments of religion. But things changed with the advent of the murky German doctrines of Martin Heidegger, the founder of modern hermeneutics. With the death of Heidegger, the apostolic succession of head of the hermeneutical movement fell upon his student, Hans-Georg Gadamer, who still wears this mantle.

The greatest success of the hermeneutical movement has been achieved in recent decades, beginning in the closely related movement of "deconstructionism" in literary criticism. Headed by the French theorists Michel Foucault, Paul Ricoeur, and Jacques Derrida, deconstructionism in the Western Hemisphere is

led by the formidable Department of English at Yale University, from which it has spread to conquer most of the English-literature departments in the United States and Canada. The essential message of deconstructionism and hermeneutics can be variously summed up as nihilism, relativism, and solipsism. That is, either there is no objective truth or, if there is, we can never discover it. With each person being bound to his own subjective views, feelings, history, and so on, there is no method of discovering objective truth. In literature, the most elemental procedure of literary criticism (that is, trying to figure out what a given author meant to say) becomes impossible. Communication between writer and reader similarly becomes hopeless; furthermore, not only can no reader ever figure out what an author meant to say, but even the author does not know or understand what he himself meant to say, so fragmented, confused, and driven is each particular individual. So, since it is impossible to figure out what Shakespeare, Conrad, Plato, Aristotle, or Machiavelli meant, what becomes the point of either reading or writing literary or philosophical criticism?

It is an interesting question, one that the deconstructionists and other hermeneuticians have of course not been able to answer. By their own avowed declaration, it is impossible for deconstructionists to understand literary texts or, for example, for Gadamer to understand Aristotle, upon whom he has nevertheless written at enormous length. As the English philosopher Jonathan Barnes has pointed out in his brilliant and witty critique of hermeneutics, Gadamer, not having anything to say about Aristotle or his works, is reduced to reporting his own subjective musings—a sort of lengthy account of "what Aristotle means to me."[1] Setting aside the hermeneutical problem of whether or not Gadamer can *know* even what Aristotle means to him, we push back the problem another notch. Namely, why in the world should anyone but Gadamer, except possibly his mother or wife, be in the least interested in the question of what Aristotle means to him? And even in the improbable event that we *were* interested in this earth-shattering question, we would in any case be prevented on hermeneutical principles from understanding Gadamer's answer.

Deconstruction and hermeneutics are clearly self-refuting on many levels. If we cannot understand the meaning of any texts, then why are we bothering with trying to understand or to take seriously the works or doctrines of authors who aggressively proclaim their own incomprehensibility?

Incomprehensibility

Indeed, a crucial point about the hermeneuticians is that, for them, incomprehensibility is a self-fulfilling prophecy. As a colleague of mine ruefully told me: "I have read everything on hermeneutics I can lay my hands on, and I understand no more about it than I did when I first started." Even in a profession—philosophy—not exactly famous for its sparkle or lucidity, one of the most remarkable qualities of the hermeneuticians is their horrendous and incomparably murky style. Stalactites and stalagmites of jargon words are piled upon each other in a veritable kitchen midden of stupefying and meaningless prose. Hermeneuticians seem to be incapable of writing a clear English, or indeed a clear German sentence. Critics of hermeneutics—such as Jonathan Barnes or David Gordon[2]—are understandably moved to satire, to stating or quoting hermeneutical tracts and then "translating" them into simple English, where invariably they are revealed as either banal or idiotic.

At first, I thought that these German hermeneuticians were simply ill served by their translators into English. But my German friends assure me that Heidegger, Gadamer et al. are equally unintelligible in the original. Indeed, in a recently translated essay, Eric Voegelin, a philosopher not normally given to scintillating wit, was moved to ridicule Heidegger's language. Referring to Heidegger's masterwork, *Sein und Zeit* (Being and Time), Voegelin refers to the meaningless but insistent repetition of a veritable philosophical dictionary of phrases as the *Anwesen des Answesenden* ("the presence of that which is present"), the *Dingen des Dings* ("the thinging of the thing"), the *Nichten des Nichts* ("the nothing-ing of the nothing"), and finally to the *zeigenden Zeichen des Zeigzeugs* ("the pointing sign of the pointing implement"), all of which is designed, says Voegelin, to whip up the reader "into a reality-withdrawing state of linguistic delirium."[3] On Gadamer and the hermeneuticians, Jonathan Barnes writes:

> What, then, are the characteristic features of hermeneutical philosophy? Its enemies will wade in with adjectives like *empty, vapid, dreamy, woolly, rhetorical*. Gadamer himself tells an uncharacteristic story. At the end of a seminar on Cajetan, Heidegger once startled his devoted audience by posing the

> question: “What is being?” “We sat there staring and shaking our heads over the absurdity of the question.” Quite right too, say the enemies of hermeneutics: the question is perfectly absurd. But Gadamer has only a frail sense of the absurd, and his own readers ought to react as he once—but alas, only once—reacted to Heidegger.

Barnes goes on to say that Gadamer admits “that his thought has sometimes been less than pellucid.” He further quotes Gadamer as saying:

> Certainly I sometimes spoke over [my pupils’] heads and put too many complications into my train of thought. Even earlier my friends had invented a new scientific measure, the “Gad,” which designated a settled measure of unnecessary complications.

Barnes adds that

> Some may prefer to this self-congratulatory little story a remark which Gadamer makes of his younger self: “Despite my title of doctor, I was still a 22-year old boy who thought rather murkily, who reacted portentously to murky thinking, and who still did not really know what was going on.”

Barnes adds: “Did the boy ever grow up?”[4]

At this point we may cite Sir Karl Popper on G.W.F. Hegel, who counts along with Friedrich Schleiermacher as at least a great-grandfather of hermeneutics. What Popper lacks in satiric gifts he makes up in the vehemence of the scorn that he heaps upon the legion of his philosophical enemies, real or imagined. After denouncing Hegel’s “high-flown gibberish” and “imbecile fancies,” Popper quotes with obvious relish the attack on Hegel by his contemporary Schopenhauer as

> a flat-headed, insipid, nauseating, illiterate charlatan, who reached the pinnacle of audacity in scribbling together and dishing up the craziest mystifying nonsense. This nonsense has been noisily proclaimed as immortal wisdom by mercenary followers and readily accepted as such by all fools,

> who thus joined into as perfect a chorus of admiration as had ever been heard before.[5]

Why this enormous acclaim and influence exerted by mystifying nonsense? In addition to noting its establishment in the interests of the Prussian state, Popper offers the following explanation:

> For some reason, philosophers have kept around themselves, even in our day, something of the atmosphere of the magician. Philosophy is considered a strange and abstruse kind of thing, dealing with those mysteries with which religion deals, but not in a way which can be "revealed unto babes" or to common people; it is considered to be too profound for that, and to be the religion and theology of the intellectuals, of the learned and wise.[6]

For a final citation on the incomprehensibility of hermeneutics, let us turn to the witty and devastating demolition by H.L. Mencken of Thorstein Veblen, another early protohermeneutician and an institutionalist opponent of the idea of economic law. In the course of an essay featuring the "translation" into English of Veblen's indecipherable prose, Mencken wrote that what was truly remarkable about Veblen's ideas

> was the astoundingly grandiose and rococo manner of their statement, the almost unbelievable tediousness and flatulence of the gifted headmaster's prose, his unprecedented talent for saying nothing in an august and heroic manner. . . .
>
> Marx, I daresay, had said a good deal of it long before him, and what Marx overlooked had been said over and over again by his heirs and assigns. But Marx, at this business, labored under a technical handicap; he wrote in German, a language he actually understood. Prof. Veblen submitted himself to no such disadvantage. Though born, I believe, in these States, and resident here all his life, he achieved the effect, perhaps without employing the means, of thinking in some unearthly foreign language—say Swahili, Sumerian or Old Bulgarian

> —and then painfully clawing his thoughts into a copious and uncertain but book-learned English. The result was a style that affected the higher cerebral centers like a constant roll of subway expresses. The second result was a sort of bewildered numbness of the senses, as before some fabulous and unearthly marvel. And the third result, if I make no mistake, was the celebrity of the professor as a Great Thinker.[7]

Collectivism

Marx, in fact, has been hailed by the hermeneuticians as one of the grandfathers of the movement. In 1985, for example, at the annual meeting of the Western Political Science Association in Las Vegas, virtually every paper offered in political theory was a hermeneutical one. A paradigmatic title would be "Political Life as a Text: Hermeneutics and Interpretation in Marx, Heidegger, Gadamer, and Foucault." (Substitute freely such names as Ricoeur and Derrida, with an occasional bow to Habermas.)

I do not believe it an accident that Karl Marx is considered one of the great hermeneuticians. This century has seen a series of devastating setbacks to Marxism, to its pretentions to "scientific truth," and to its theoretical propositions as well as to its empirical assertions and predictions. If Marxism has been riddled both in theory and in practice, then what can Marxian cultists fall back on? It seems to me that hermeneutics fits very well into an era that we might, following a Marxian gambit about capitalism, call "late Marxism" or Marxism-in-decline. Marxism is not true and is not science, but so what? The hermeneuticians tell us that nothing is objectively true, and therefore that all views and propositions are subjective, relative to the whims and feelings of each individual. So why should Marxian yearnings not be equally as valid as anyone else's? By the way of hermeneutics, these yearnings cannot be subject to refutation. And since there is no objective reality, and since reality is created by every man's subjective interpretations, then all social problems reduce to personal and nonrational tastes. If, then, hermeneutical Marxists find capitalism ugly and unlovely, and they find socialism beautiful, why should they not attempt to put their personal esthetic preferences into action? If they feel that socialism is beautiful, what can stop them, especially since there are no laws of economics or truths of political philosophy

to place obstacles in their path?

It is no accident that, with the exception of a handful of contemporary economists—who will be treated further later—every single hermeneutician, past and present, has been an avowed collectivist, either of the left- or right-wing variety, and sometimes veering from one collectivism to another in accordance with the realities of power. Marx, Veblen, Schmoller, and the German Historical school are well known. As for the modern hermeneuticians, Heidegger found it all too easy to become an enthusiastic Nazi once the Nazi regime had been established. And Gadamer had no difficulty whatever adapting either to the Nazi regime (where he was known for having only a "loose sympathy" with the Third Reich) or to the Soviet occupation in East Germany (where, in his own words, he won "the special esteem of the Russian cultural authorities" for carrying out "their directives exactly, even against my own convictions").[8]

"Openness" and Keeping the "Conversation" Going

Here we must note two variants of the common hermeneutical theme. On the one hand are the candid relativists and nihilists, who assert, with an inconsistently absolutist fervor, that there is no truth. These hold with the notorious dictum of the epistemological anarchist Paul Feyerabend that "anything goes." Anything, be it astronomy or astrology, is of equal validity or, rather, equal invalidity. The one possible virtue of the "anything goes" doctrine is that at least everyone can abandon the scientific or philosophic enterprise and go fishing or get drunk. This virtue, however, is rejected by the mainstream hermeneuticians, because it would put an end to their beloved and interminable "conversation." In short, the mainstream hermeneuticians do not like the "anything goes" dictum because, instead of being epistemological anarchists, they are epistemological pests. They insist that even though it is impossible to arrive at objective truth or indeed even to understand other theorists or scientists, that we all still have a deep moral obligation to engage in an endless dialogue or, as they call it, "conversation" to try to arrive at some sort of fleeting quasi truth. To the hermeneutician, truth is the shifting sands of subjective relativism, based on an ephemeral "consensus" of the subjective minds engaging in the endless conversation. But the worst thing is that the hermeneuticians assert that there is no objective way, whether

by empirical observation or logical reasoning, to provide any criteria for such a consensus. Since there are no rational criteria for agreement, any consensus is necessarily arbitrary, based on God knows what—personal whim, charisma of one or more of the conversationalists, or perhaps sheer power and intimidation. Since there is no criterion, the consensus is subject to instant and rapid change, depending on the arbitrary mind-set of the participants or, of course, a change in the people constituting the eternal conversation.

A new group of hermeneutical economists, eager to find some criteria for consensus, have latched onto a Gestalt-like phrase of the late economist Fritz Machlup, perhaps taking his name very much in vain. They call this criterion the "Aha! principle," meaning that the truth of a proposition is based on the exclamation of "Aha!" that the proposition may arouse in someone's breast. As Don Lavoie and Jack High put it: "We know a good explanation when we see one, and when it induces us to say ahah."[9] Somehow I do not find this criterion for truth, or even for consensus, very convincing. For example, many of us would find the prospect of being confronted with the option of engaging in endless and necessarily fruitless conversation with people unable to write a clear sentence or express a clear thought to be the moral equivalent of Sartre's *No Exit*. Furthermore, I have a hunch that if someone came up with the proposition: "It would be a great thing to give these guys a dose of objective reality over the head" or at the very least to slam the door on their conversation, that this would elicit many more fervent "Ahas!" than the murky propositions of the hermeneuticians themselves.

The prime moral duty proclaimed by the hermeneuticians is that we must at all times keep the *conversation* going. Since this duty is implicit, it is never openly defended, and so we fail to be instructed why it is our moral obligation to sustain a process that yields such puny and ephemeral results. In keeping with this alleged virtue, the hermeneuticians are fervently and dogmatically opposed to "dogmatism" and they proclaim the supreme importance of remaining endlessly "open" to everyone in the dialogue. Gadamer has proclaimed that the highest principle of hermeneutic philosophy is "holding oneself open in a conversation," which means always recognizing "in advance, the possible correctness, even the superiority of the conversation partner's position." But, as Barnes points out, it is one thing to be modestly skeptical of one's own position; it is quite another to

refuse to dismiss *any other* position as false or mischievous. Barnes points out that the modest skeptic

> recognizes that he himself may always be wrong. Gadamer's "open" philosopher allows that his opponent may always be right. A modest sceptic may . . . indeed, in his modest way, regard the history of philosophy as a ceaseless campaign, marked by frequent defeats and occasional triumphs, against the ever powerful forces of fallacy and falsehood. . . . [W]ith some opponents he will not be "open": he will be quite sure that they are wrong.[10]

The most important hermeneutical philosopher in the United States is Richard Rorty, who, in his celebrated book, *Philosophy and the Mirror of Nature*, devotes considerable space to the prime importance of "keeping the conversation going." In his sparkling critique of Rorty, Henry Veatch points out that, to the crucial question of how can we conversationalists ever know which ideals or "cultural posits" (in the Rortian language) are better than others, "Rorty could only answer that, of course, there can't be any such thing as *knowledge* in regard to matters such as these." So, if there is no knowledge and, hence, no objective criteria for arriving at positions, we must conclude, in the words of Veatch, that "although Aristotle may well have taught that 'philosophy begins in wonder', . . . present-day philosophy can only end in a total conceptual or intellectual permissiveness."[11] In short, we end with the Feyerabendian "anything goes" or, to use the admiring phrase of Arthur Danto in his summary of Nietzsche, that "everything is possible."[12] Or, in a word, total "openness."

But if all things are open, and there are no criteria to guide conversationalists to any conclusions, how will such conclusions be made? It seems to me, following Veatch, that these decisions will be made by those with the superior Will-to-Power. And so it is not a coincidence that leading hermeneuticians have found themselves flexible and "open" in response to the stern demands of state power. After all, if Stalin, Hitler, or Pol Pot enters the "conversational" circle, they cannot be rejected out of hand, for they too may offer a superior way to consensus. If nothing is wrong and all things are open, what else can we expect? And who knows, even these rulers may decide, in a sardonic burst of Marcusean "repressive tolerance," to keep some sort of Orwellian

"conversation" going in the midst of a universal gulag.

In all the blather about openness, I am reminded of a lecture delivered by Professor Marjorie Hope Nicholson at Columbia University in 1942. In a critique of the concept of the open mind, she warned: "Don't let your mind be so open that everything going into it falls through."

There is another self-serving aspect to the hermeneutical demands for universal openness. For if nothing—no position, no doctrine—can be dismissed outright as false or mischievous or as blithering nonsense, then they too, our hermeneuticians, must be spared such rude dismissal. Keeping the conversation going at all costs means that these people must eternally be included. And that is perhaps the most unkindest cut of all.

If one reads the hermeneuticians, furthermore, it becomes all too clear that typically no one sentence follows from any other sentence. In other words, not only is the style abominable, but there is no reasoning in support of the conclusions. Since logic or reasoning are not considered valid by the hermeneuticians, this procedure is not surprising. Instead, for reasoning the hermeneuticians substitute dozens or scores of books, which are cited, very broadly, in virtually every paragraph. To support their statements, the hermeneuticians will list repeatedly every book that might possibly or remotely relate to the topic. In short, their only argument is from authority, an ancient philosophic fallacy which they seem to have triumphantly revived. For indeed, if there is no truth of reality, if for logic or experience, we must substitute a fleeting consensus of the subjective whims, feelings, or power plays of the various conversationalists, then what else is there but to muster as many conversationalists as possible as your supposed authorities?[13]

Armed with their special method, the hermeneuticians are therefore able to dismiss all attacks upon themselves, no matter how perceptive or penetrating, as "unscholarly." This lofty rebuttal stems from their unique definition of *scholarly*, which for them means ponderous and obscurantist verbiage surrounded by a thicket of broad citations to largely irrelevant books and articles.

So why then have not the distinguished critics of hermeneutics played the game on their opponents' own turf and waded through the mountains and oceans of hogwash, patiently to cite and refute the hermeneuticians point by point and journal article by journal article? To ask that question is virtually to answer it. In fact, we have asked some of the critics this

question, and they immediately responded in a heartfelt manner that they do not propose to dedicate the rest of their lives to wading through this miasma of balderdash. Moreover, to do so, to play by the hermeneuticians' own rules, would be to grant them too much honor. It would wrongfully imply that they are indeed worthy participants in our conversation. What they deserve instead is scorn and dismissal. Unfortunately, they do not often receive such treatment in a world in which all too many intellectuals seem to have lost their built-in ability to detect pretentious claptrap.[14]

Hermeneutical Economics

Economists like to think of their discipline as the "hardest" of the social sciences, and so it is no surprise that hermeneutics—though having conquered the field of literature and made severe inroads into philosophy, political thought, and history—has yet made very little dent in economics. But the economics discipline has been in a state of methodological confusion for over a decade, and in this crisis situation minority methodologies, now including hermeneutics, have begun to offer their wares.

In the economics profession, of course, the practitioners down in the trenches only loosely reflect, or indeed have scarcely any interest in, the small number of methodological reflections in the upper stories of the ivory tower. But these seemingly remote philosophical musings do have an important long-run influence on the guiding theories and directions of the discipline. For approximately two decades, Lionel Robbins' justly famous *The Nature and Significance of Economic Science* was the guiding methodological work of the profession, presenting a watered-down version of the praxeological method of Ludwig von Mises. Robbins had studied at Mises' famous *privatseminar* at Vienna, and his first edition (1932) stressed economics as a deductive discipline based on the logical implications of the universal facts of human action (e.g., that human beings try to achieve goals by using necessarily scarce means). In Robbins' more widely known second edition (1935), the Misesian influence was watered down a bit further, coupled with intimations no bigger than a man's hand of the neo-classical formalism that would hit the profession about the time of World War II.[15] After the war, the older economics was inundated by an emerging formalistic and mathematical neo-classical synthesis, of Walrasian equations covering microeconomics and Keynesian geometry taking care of

macro.

Aiding and abetting the conquest of economics by the new neo-classical synthesis was the celebrated article by Milton Friedman in 1953, "The Methodology of Positive Economics," which quickly swept the board, sending Robbins' *Nature and Significance* unceremoniously into the dustbin of history.[16] For three decades, secure and unchallenged, the Friedman article remained virtually the only written portrayal of official methodology for modern economics.

It should be noted that, as in the triumph of the Keynesian revolution and many other conquests by various schools of economics, the Friedman article did not win the hearts and minds of economists in the pattern of what we might call the Whig theory of the history of science: by patient refutation of competing or prevailing doctrines. As in the case of the Mises-Hayek business-cycle theory dominant before Keynes' *General Theory*, the Robbins book was not refuted; it was simply passed over and forgotten. Here the Thomas Kuhn theory of successive paradigms is accurate on the sociology or process of economic thought, deplorable as it might be as a prescription for the development of a science. Too often in philosophy or the social sciences, schools of thought have succeeded each other as whim or fashion, much as one style of ladies' hemlines has succeeded another. Of course, in economics as in other sciences of human action, more sinister forces, such as politics and the drive for power, often deliberately skew the whims of fashion in their own behalf.

What Milton Friedman did was to import into economics the doctrine that had dominated philosophy for over a decade, namely logical positivism. Ironically, Friedman imported logical positivism at just about the time when its iron control over the philosophical profession in the United States had already passed its peak. For three decades, we have had to endure the smug insistence on the vital importance of empirical testing of deductions from hypotheses as a justification for the prevalence of econometric models and forecasting, as well as a universal excuse for theory being grounded on admittedly false and wildly unrealistic hypotheses. For neo-classical economic theory clearly rests on absurdly unrealistic assumptions, such as perfect knowledge; the continuing existence of a general equilibrium with no profits, no losses, and no uncertainty; and human action being encompassed by the use of calculus that assumes infinitesimally tiny changes in our perceptions and choices.

In short, this formidable apparatus of neo-classical mathematical economic theory and econometric models, all rests, from the Misesian point of view, upon the treacherous quicksand of false and even absurd assumptions. This Austrian charge of falsity and unreality, if noticed at all, was for decades loftily rebutted by pointing to Friedman's article and asserting that falsity of assumptions and premises do not matter, so long as the theory "predicts" properly. In its founding years in the early 1930s, the Econometric Society emblazoned on its escutcheon the motto, "Science is prediction," and this was the essence of the Friedman-derived defense of neoclassical theory. Austrians such as Mises and Hayek replied that the disciplines of human action are not like the physical sciences. In human affairs, there are no laboratories where variables can be controlled and theories tested, while (unlike the physical sciences) there are no quantitative constants in a world where there is consciousness, freedom of will, and freedom to adopt values and goals and then to change them. These Austrian contentions were dismissed by neoclassical as simply posing a greater degree of difficulty in arriving at the human sciences, but not in offering a troublesome difference in kind.

The neoclassical synthesis, however, began, in the early 1970s, to lose its power either to understand or to predict what was going on in the economy. The inflationary recession that first appeared dramatically in the 1973–74 contraction put an end to a thirty-five-year period of arrogant and unquestioned hegemony by the Keynesian wing of the neoclassical synthesis. For Keynesian theory and policy rested on the crucial assumption that inflationary recession simply cannot happen. At that point, Friedmanite monetarism came to the fore, but monetarism has now come a cropper after making a rapid series of disastrously wrong predictions from the beginning of the Reagan era until the present. But he who lives by prediction is destined to die by prediction.

In addition to these failures of Keynesianism and monetarism, the blunders and errors of econometric forecasting have become too notorious to ignore, and a wealthy and supremely arrogant profession, using ever higher-speed computer models, seems to enjoy less and less ability to forecast even the immediate future. Even governments, despite the assiduous attention and aid of top neoclassical economists and forecasters, seem to have great difficulties in forecasting *their own* spending, much less their own incomes, let alone the incomes or spending

of anyone else.

Amid these failures, there has been a chipping away at the neo-classical formalism of Walrasian microeconomics, sometimes by disillusioned leaders operating from within this ruling paradigm.

As a result of these problems and failures, the last ten or fifteen years has seen the development of a classic Kuhnian "crisis situation" in the field of economics. As the positivist neo-classical orthodoxy begins to crumble, competing paradigms have emerged. Sparked also by Hayek's receipt of a Nobel Prize in 1974, Austrian or Misesian economics has enjoyed a revival since then, with numerous Austrians teaching in colleges in the United States and Britain. Recently there have even emerged five or six Austrian graduate programs or centers in the United States.

In a crisis situation, of course, the bad jostles the good in the new atmosphere of epistemological and substantive diversity. No one ever guaranteed that if a hundred flowers should bloom, that they would all be passing fair. On the left, the nontheory of institutionalism has made a bit of a comeback, jostled by "post-Keynesians" (inspired by Joan Robinson) and "humanistic" neo-Marxists who have substituted a vague adherence to "decentralization" and protection of all animal and vegetable life forms for the rigors of the labor theory of value.

Which brings us back to hermeneutics. For in this sort of atmosphere, even the underworld of hermeneutics will vie for its day in the sun. Probably the most prominent hermeneutical economist in the United States is Donald McCloskey, who calls his viewpoint "rhetoric" and whose attack on truth occurs in the name of rhetoric and of the eternal hermeneutical conversation. [17] McCloskey, unfortunately, follows the modern path of rhetoric run hog-wild and divorced from a firm anchor in truth, overlooking the Aristotelian tradition of "noble rhetoric" as the most efficient way of persuading people of correct and true propositions. For Aristotelians, it is only "base" rhetoric that is divorced from true principles.[18] McCloskey is now organizing a center for rhetorical studies at the University of Iowa, which will organize volumes on rhetoric in a number of diverse disciplines.

Much as I deplore hermeneutics, I have a certain amount of sympathy for McCloskey, an economic historian who endured years as a drill instructor and cadre leader in the Friedman-Stigler Chicago School's positivist ranks. McCloskey is reacting against decades of arrogant positivist hegemony, of an alleged

"testing" of economic theory that never really takes place, and of lofty statements by positivists that "I do not understand what you *mean*," when they know darn well what you mean but disagree with it, and who use their narrow criteria of meaning to dismiss your argument. In this way, the positivists for a long while were able to read virtually all important philosophical questions out of court and consign them to the despised departments of religion and belles lettres. In a sense, the rise of hermeneutics is those departments' revenge, retorting to the positivists that if "science" is only the quantitative and the "testable," then we shall swamp you with stuff that is *really* meaningless.

It is more difficult to excuse the path travelled by the major group of hermeneuticians in economics, a cluster of renegade Austrians and ex-Misesians gathered in the Center for Market Processes at George Mason University. The spiritual head of this groupuscule, Don Lavoie, has reached the pinnacle of having his photograph printed in his magazine *Market Process* talking to the great Gadamer.[19] Lavoie has organized a Society for Interpretive Economics (*interpretation* is a code word for hermeneutics) to spread the new gospel, and has had the effrontery to deliver a paper entitled "Mises and Gadamer on Theory and History," which, as a colleague of mine has suggested, is the moral equivalent of my writing a paper entitled "Lavoie and Hitler on the Nature of Freedom."

It must be noted that nihilism had seeped into current Austrian thought before Lavoie and his colleagues at the Center for Market Processes embraced it with such enthusiasm. It began when Ludwig M. Lachmann, who had been a disciple of Hayek in England in the 1930s and who had written a competent Austrian work entitled *Capital and Its Structure* in the 1950s, was suddenly converted by the methodology of the English economist George Shackle during the 1960s.[20] Since the mid-1970s, Lachmann, teaching part of every year at New York University, has engaged in a crusade to bring the blessings of randomness and abandonment of theory to Austrian economics. When Lavoie and his colleagues discovered Heidegger and Gadamer, Lachmann embraced the new creed at the 1986 first annual (and, if luck is with us, the last annual) conference of the Society of Interpretive Economics at George Mason University. The genuine Misesian creed, however, still flourishes at the Ludwig von Mises Institute at Auburn University and Washington, D.C., and in its publications: *Free Market*, the *Austrian Economics Newsletter*, and the *Review of Austrian Economics*, which in its first issue included

a critique of a quasi-hermeneutical book by two ex-Misesians who claim to have discovered the key to economics in the works of Henri Bergson.[21]

One of the main motivations of the ex-Misesian hermeneuticians is that their horror of mathematics, to which they react as to the head of Medusa, leads them to embrace virtually any ally in their struggle against positivism and neo-classical formalism. And so they find that, lo and behold, institutionalists, Marxists, and hermeneuticians have very little use for mathematics either. But before they totally embrace the desperate creed that the enemy of my enemy is necessarily my friend, our Market Process hermeneuticians should be warned that there may be worse things in this world than mathematics or even positivism. And second, that in addition to Nazism or Marxism, one of these things may be hermeneutics.

And just as Professor McCloskey's history may serve as a partial mitigation of his embrace of hermeneutics, we may go further back and mitigate the sins of the logical positivists. For, after all, the positivists, much as they may be reluctant to admit it, also did not descend upon us from Mount Olympus. They grew up in old Vienna, and they found themselves in a Germanic world dominated by protohermeneutical creeds such as Hegelianism as well as by the young Heidegger, who was even then making his mark. After reading and listening to dialectics and protohermeneutics day in and day out, after being immersed for years in the gibberish that they were told constituted philosophy, is it any wonder that they—including for our purposes Popper as well as Carnap, Reichenbach, Schlick, et al.—should finally lash out and exclaim that the whole thing was meaningless or that they should cry out for precision and clarity in language? Is it also any wonder that the nascent positivists, like McCloskey a half-century later, should go too far and throw out the philosophic baby with the neo-Hegelian bathwater?

In the peroration to his paean to hermeneutical economics, ex-Misesian Richard Ebeling proclaims: "Man loves to talk about himself."[22] But in rebuttal I point to the sage words of the American cultural and political satirist Tom Lehrer. In the 1960s, Lehrer noted that "a lot of people are whining about their 'inability to communicate.'" "It seems to me," Lehrer added, "that if you are unable to communicate, the *least* you can do is to shut up." That, alas, is something that Ebeling and his hermeneutical colleagues have not yet learned to do.

This article is adapted from a paper delivered at a Conference on Recent Trends in Philosophy and the Social Sciences held by the London Academic and Cultural Resources Fund and the Institute of Philosophy of the Jagellonian University of Krakow at Krakow, Poland, in April 1987.

[1] Jonathan Barnes, "A Kind of Integrity: Review of Hans-Georg Gadamer, *Philosophical Apprenticeships* (Cambridge, Mass.: MIT Press, 1985), and Gadamer, *The Idea of the Good in Platonic-Aristotelian Philosophy* (New Haven, Conn.: Yale University Press, 1986)," *London Review of Books* (November 6, 1986), pp. 12–13.

[2] Barnes, "A Kind of Integrity"; and David Gordon, "Hermeneutics versus Austrian Economics" (Auburn, Ala.: The Ludwig von Mises Institute, 1986).

[3] Eric Voegelin, "The German University and the Order of German Society: A Reconsideration of the Nazi Era," *Intercollegiate Review*, 20 (spring/summer 1985), p. 11.

[4] Barnes, "A Kind of Integrity," p. 13.

[5] Karl R. Popper, *The Open Society and its Enemies*, 4th ed. (New York: Harper & Row, 1962), vol. 2, p. 33.

[6] Popper, *Open Society*, vol. 2, p. 30.

[7] H.L. Mencken, "Professor Veblen," *A Mencken Chrestomathy* (New York: Alfred A. Knopf, 1949), p. 270.

[8] Barnes, "A Kind of Integrity," p. 12.

[9] Don Lavoie and Jack High, "Interpretation and the Costs of Formalism" (unpublished manuscript), p. 14.

[10] Barnes, "A Kind of Integrity," p. 13. For a critique of the triumph of the ideal of "openness," see Allan Bloom, *The Closing of the American Mind* (New York: Simon and Schuster, 1987).

[11] Henry Veatch, "Deconstruction in Philosophy: Has Rorty Made It the Denouement of Contemporary Analytical Philosophy?" *Review of Metaphysics*, 39 (December 1985), pp. 313–314, 316.

[12] Arthur C. Danto, *Nietzsche as Philosopher* (New York: Columbia University Press, 1980), p. 12; cited in Veatch, "Deconstruction," p. 312.

[13] I am indebted for this point to Sheldon Richman of the Institute of Humane Studies at George Mason University.

[14] In a witty and perceptive article, the distinguished Yale philosopher Harry Frankfurt calls this phenomenon "bullshit," which he asserts to be a greater enemy to the truth than an outright lie, since a liar recognizes that he is violating the truth, whereas the bullshitter does not. Frankfurt writes:

> The contemporary proliferation of bullshit also has deeper sources, in various forms of skepticism which deny that we can have any reliable access to an objective reality and which therefore reject the possibility of knowing how things truly are. These "antirealist" doctrines undermine confidence in the value of disinterested efforts to determine what is true and what is false, and even in the intelligibility of the notion of objective inquiry.

See Harry Frankfurt, "On Bullshit," *Raritan*, 6 (fall 1986), pp. 99–100.

[15] Lionel Robbins, *An Essay on the Nature and Significance of Economic Science* [1932] (London: Macmillan, 1935).

[16] Milton Friedman, "The Methodology of Positive Economics," in Friedman, *Essays in Positive Economics* (Chicago: University of Chicago Press, 1953).

[17] Donald N. McCloskey, *The Rhetoric of Economics* (Madison, Wisc.: University of Wisconsin Press, 1985).

For a comprehensive Misesian critique of McCloskey's work, see the book review essay by Hans-Hermann Hoppe in this volume.

[18] Cf. Richard M. Weaver, *The Ethics of Rhetoric* (Chicago: University of Chicago Press) and Larry Arnhart, *Aristotle on Political Reasoning: A Commentary on "The Rhetoric"* (Dekalb, Ill.: Northern Illinois University Press, 1981).

[19] *Market Process*, 4 (fall 1986), p. 16.

[20] Ludwig M. Lachmann, *Capital and Its Structure* (London: London School of Economics, 1956). The later, post-Shackelian or nihilist Lachmann may be found in his "From Mises to Shackle: An Essay on Austrian Economics and the Kaleidic Society," *Journal of Economic Literature*, 54 (1976).

[21] Thus, see Charles W. Baird, "The Economics of Time and Ignorance: A Review," *The Review of Austrian Economics*, I (1987), pp. 189–223.

[22] Richard M. Ebeling, "Hermeneutics and the Interpretive Element in the Analysis of the Market Process." Center for Market Processes Working Paper. (Fairfax, Va.: Department of Economics, George Mason University, 1985), p. 45. Cf. Frankfurt, "On Bullshit," p. 100.

Antitrust Reform: Predatory Practices and the Competitive Process

Dominick T. Armentano

Antitrust Reform in the 1980s

There have been some modest changes in the administration of United States antitrust policy over the past ten years. The federal antitrust regulators—and to some extent the courts—are now somewhat less concerned than previously with conglomerate and vertical mergers; with horizontal mergers within liberalized merger guidelines; with tying agreements that intend to limit "free-riding" or reduce transactions costs; with market concentration achieved through internal growth; or with nonpredatory price discrimination.

There are several reasons for this shift in antitrust attitudes and enforcement policies.[1] One important reason is the increasing professional disenchantment with the traditional "barriers to entry" doctrine.[2] This theory held that firms in concentrated markets erected economic barriers (such as product differentiation) that unfairly deterred the entry of rivals and allowed dominant firms to exercise "monopoly power." Critics of this theory argued, instead, that most of these alleged economic barriers were simply market efficiencies that served to improve consumer welfare. When and if dominant firms failed to provide such improvements, rivals would inevitably enter markets and compete. Thus, superior economic performance ought not to be attacked prematurely in the name of removing "barriers" to competition.

Another reason for the decline in traditional enforcement policies is the increasing theoretical and empirical criticism of the "concentration doctrine."[3] This theory held that high market concentration encouraged business collusion, and that this was evidenced by higher-than-normal profits (accounting returns) in concentrated markets.

This notion has now been severely criticized. Some analysts

have failed to substantiate any long-run empirical relationship between high profit and high concentration.[4] Other analysts have argued that accounting profits are a poor indicator of "monopoly" or resource misallocation,[5] while still others have argued that long-run profits could simply be a return to long-run innovation and risk taking.[6] Efficient firms can be expected to earn more than less efficient firms and then grow faster than less-efficient firms.[7] If market concentration is simply the natural consequence of superior economic performance, the role of antitrust regulation (particularly merger policy) becomes ambiguous.

A final reason for the shift in antitrust attitudes is that a reexamination of some of the classic antitrust cases did not support the general rationale for traditional enforcement.[8] In many of the classic antitrust cases, both public and private, the indicted defendant firms had lowered their prices, expanded their outputs, engaged in rapid technological change, and generally behaved in ways consistent with an efficient and rivalrous process. Indeed, it was precisely this rivalrous behavior that may have precipitated the antitrust legal action. There is now a wider recognition among antitrust specialists that competition is a *process*—not an equilibrium condition—and that antitrust (especially in the private cases) may have been employed as a legal club to thwart rivalrous behavior and protect existing market structures.[9]

Yet, despite this impressive theoretical and empirical revisionism, antitrust regulation in the middle of the 1980s is still very much alive and well. None of the antitrust laws have been abolished or even reformed. The Regan administration's modest legislative proposals to modify sections of the Clayton Act (1914) went nowhere with the Congress.[10] Most economists, and even some of the most important antitrust critics, still believe that some antitrust regulation *is* necessary to promote social efficiency and control "market power." Specifically, the Antitrust Division of the Department of Justice and the Federal Trade Commission (FTC) continue to regulate large horizontal mergers, and they still forbid price-fixing and division-of-market agreements, resale-price maintenance, and so-called "predatory practices."

This is not the place to explain the survival of the antitrust paradigm or to challenge the theoretical foundations of all antitrust regulation.[11] Instead, I intend to examine critically the proposition that the current prohibition of predatory

practices under the Sherman Act (1890) is rational and consistent with the new theoretical and policy revisionism.

Predatory Practices

Predatory price reductions imply that a leading ("dominant") firm can price its product in ways that may adversely affect smaller rivals, or potential rivals, and reduce market efficiency. A firm, for instance, might temporarily reduce the price of its product below "costs" in an attempt to eliminate a rival or in order to discourage potential entry into some market. Such a price reduction might squeeze a rival's profit margin and might even tend to put a competitor out of business. Alternatively, a dominant firm's price reduction aimed at potential entrants could "discipline" them, and create a "chilling effect"; they might decide not to enter the market as a consequence. In antitrust jargon, trade is said to be restrained by such behavior and consumer welfare is allegedly threatened.

A nonprice predatory practice implies that a dominant firm can employ some nonprice rivalrous variable (e.g., product differentiation or advertising) in a way that might raise a rival's costs or reduce the demand for a rival's product.[12] For example, if the dominant firm is a more efficient advertiser, an increase in advertising expenditures that must be matched by a rival could raise a rival's costs. Or some dominant firm might suddenly introduce a revolutionary new industrial process or technology that cannot be duplicated by smaller rivals. The effect of these actions, it is alleged, could be to lessen competition and reduce consumer welfare.

The use of the term *predation* certainly makes such business practices appear antisocial. Those who would defend so-called predatory practices are immediately put on the defensive. Yet, despite the inappropriate jungle terminology, it will be argued shortly that predatory practices in a free market are not inefficient nor are they socially harmful. The regulatory agencies and the courts should not prohibit or attempt to regulate them.

There are several different aspects of predatory behavior that require separate examination. The first concern is the issue of "intent"; the second is whether the dominant firm prices below costs or whether the firm is able to raise, unfairly, a rival's costs; the final concern is the alleged effect that predatory behavior can have on resource allocation and on the welfare of consumers.

Intent

It is sometimes maintained that predatory behavior can be distinguished from normal rivalrous behavior by a careful examination of "intent." The issue becomes: what was the intent (intention) of the dominant seller when it reduced its prices? If the intent of the dominant firm was to eliminate some smaller rival in order to gain "market power," then the practice can be deemed predatory and a violation of antitrust law.

Economists generally have been critical of attempts to distinguish predatory behavior from competitive behavior by focusing on subjective intent. When a dominant firm lowers its prices to hold a declining market share, is that predation or is it just vigorous competition? When a large firm lowers its prices to improve its market share, is that predation or is it competition? When a dominant firm lowers its prices and expands its output in order to discourage market entry by potential suppliers, is that predation or just efficient competitive behavior? Every so-called "explicit" evidence of intent (such as written memos to "get" firm *X*) is open to various interpretations. Rival suppliers could always assert that the clear intent of the dominant firm's price reductions was predatory, such as the elimination of the smaller rivals (and they could always attempt to use the antitrust laws in an attempt to stifle such activity). Dominant firms could always assert that their price reductions, given market uncertainty, were simply part and parcel of a dynamic discovery process. Thus, it should be clear that it is quite impossible to determine whether price reductions are appropriate or inappropriate by focusing on alleged intent.

An even more critical position with respect to the issue of intent is that all pricing, even so-called competitive pricing, does intend to take sales and market share away from rivals. A competitive market process implies that resources tend to shift from less efficient uses to more efficient uses, and this process may mean that some rivals do lose sales and profits. Unlike the atomistic equilibrium condition, rivals in a competitive market process *are* interdependent, and the price reductions of one firm do *aim* to affect the sales of another firm. The intent of a price reduction is to put a company in a better strategic position vis-à-vis rival sellers; the reduction intends to improve the position of a business organization relative to other business organizations. Thus, there is nothing unique about the intent associated with so-called predatory behavior, and there is no realistic way to

determine the social correctness of such practices on the basis of intent.

The Debate over Predatory-Pricing Rules

The academic and legal debate concerning the appropriateness of certain price reductions has shifted to whether such reductions are below "cost." Businessmen frequently complain that an aggressive rival is selling at prices that are "below cost" and that such pricing is unfair and even predatory. This "below-cost" charge probably implies that a rival sells at a price that is below its own (short-run) average cost.

Most analysts hold that such short-run pricing behavior is not necessarily predatory. They tend to argue that as long as market price equals at least *marginal* cost, a firm is not engaged in inefficient or predatory pricing. However, if market price were to fall below marginal cost or average variable cost, such pricing might be socially inefficient and might even be predatory.

A voluminous literature (and debate) has developed over price predation and various price-cost rules. Phillip Areeda and Donald Turner originally argued that dominant firm pricing below reasonable anticipated marginal cost (or average variable cost) was predatory and should be illegal.[13] F.M. Scherer responded that the Areeda-Turner rule was both unrealistic and analytically incorrect.[14] He argued that an examination of many other factors was required before any determination could be made that pricing below short-run marginal cost was exclusionary and inefficient. Oliver Williamson noted that the Areeda-Turner rule could still allow dominant firms to operate inefficiently and with "excess capacity."[15] He once recommended that dominant firms be prohibited from expanding output for a specified period of time in order to encourage new entry and "competition." The predatory price-cost discussion has continued intermittently in the journals without any definitive theoretical or policy resolution.[16]

A General Criticism of the Debate

There are several ways to criticize the standard form that this predatory pricing debate has taken. The most general criticism is that the debate has assumed that the equilibrium models of pure monopoly and pure competition are appropriate for predatory-price analysis. In this context, the dominant firm (for all practical

purposes) is the textbook "monopolist" and its performance is compared (unfavorably) with the firm in a competitive equilibrium. Given this conventional framework, it is not surprising that dynamic pricing (and nonprice) practices on the part of a dominant firm, such as predatory practices, can be construed as resource misallocating.

The assumptions and conclusions of the standard equilibrium analysis are debatable. The textbook monopolist misallocates resources because it is assumed that there are no close substitutes for its product and because it is assumed that there can be no market entry. With the competitive *process* ruled out by definition, it is easy to demonstrate that the dominant seller can charge a price higher than marginal cost. But this allocative inefficiency is totally contrived by the strict *equilibrium* assumptions of the model.

In the real business world, a dominant firm, as distinct from a textbook monopolist, arises and operates under uncertain, disequilibrium conditions. The dominant firm gains and holds its market share by engaging successfully in a competitive market process of discovery and adjustment.[17] And as a consequence of its market-coordinating skills, the dominant firm tends to grow faster than its rivals (or potential rivals) *into* a position (perhaps temporary) of market dominance.

This position of market dominance is not an equilibrium condition and the competitive process has not been extinguished. Changing tastes and technological change still must be discovered and efficiently exploited in order to maintain (or increase) market position. Economic profits will still act as an incentive for additional output, and industry resources will still tend to flow from less profitable uses to more profitable uses. Unlike the textbook monopolist, the competitive process will continue to "swirl around" the dominant firm, continuously creating incentives for efficient plan coordination.[18] Price will tend toward "cost" (everything else equal) and profit incentives will drive cost curves to a minimum level. Thus, it is unreasonable to assume that the dominant firm can behave like an equilibrium "monopolist" or that it can inherently misallocate resources.

If the preceding is correct, the standard approach errs when it attempts to compare the performance of the dominant firm negatively with the performance of firms in competition. Resources are allocated efficiently in the competitive equilibrium only because firms, in the absence of uncertainty, must charge

prices equal to marginal cost. The dominant firm, on the other hand, may charge prices that are higher (or lower) than marginal cost. The standard welfare conclusion is that competitive firms are more efficient than dominant firms.

But this conclusion is fully contrived by the equilibrium assumptions of the analysis. It is assumed that the competitive process has completely *ended* in competition (that is, that price and marginal cost are equal). With tastes and technology assumed constant and market information assumed perfect, all of the important sources of market inefficiency have simply been assumed away. Prices already equal marginal cost in the competitive equilibrium; any real-world comparison with this equilibrium condition *must* appear unfavorable.[19] Prices only *tend toward* cost for the dominant firm in dis-equilibrium. But of what possible *policy* significance is such an approach?

> The economic problem to be solved by competition is emphatically *not* one of how resources would be allocated if information were perfect and consumer tastes constant; with everything known and constant, the solution to such a resource-allocation problem would be trivial. Rather, the economic problem lies in understanding how the competitive market process of discovery and adjustment works to coordinate anticipated demand with supply in a world of imperfect information. To assume away divergent expectations and change, therefore, is to assume away all the real problems associated with competition and the resource allocation process.[20]

The irrelevance of the equilibrium paradigm for judging the efficiency and appropriateness of certain dynamic business practices (such as predatory pricing) can now be made explicit. Nothing that is truly rivalrous can occur in the static competitive equilibrium; after all, the coordinating process has been completed in equilibrium. All of the business practices that we associate with rivalrous behavior occur in a competitive disequilibrium, not in "competition." For example, product differentiation and advertising have been seen as resource misallocating but *only* within a competitive equilibrium framework. Once competition is understood as a process of discovery and adjustment under conditions of uncertainty—and not as a static equilibrium condition—product differentiation,

advertising, and all price reductions can easily be reconciled with increasing market coordination and with increasing market efficiency.

A Criticism of the Price-Cost Rules

With respect to any specific price-cost rule, it can be admitted readily that business "costs" are very difficult to define and even harder to accurately measure, especially long-run marginal costs. More importantly, however, all cost-based pricing rules for "efficient" pricing are inherently suspicious. Real-world market prices are determined by utility and revealed preferences and not directly by accounting costs. Accounting costs may help determine market supply in some previous time period, but current demand conditions—given market supply—actually determine transactions prices. And they determine transactions prices in each successive time period.

Another fundamental objection to any cost-based pricing rule (for determining predatory practices) is that the actual costs which do affect decision making are not accounting costs at all, but are subjective opportunity costs.[21] Opportunity costs are personal and subjective and they are known only to the decisionmaker and then only at the moment of decision. Thus, whether actual market prices are above or below specific historical accounting costs may be relatively insignificant, since the accounting costs themselves may not be the relevant costs for decision making.

Analysts are often misled on this issue because of their predilection for pricing in the competitive equilibrium. *If* the business world were purely competitive, costs could (in some sense) be said to determine market prices. But the actual business world is not, and cannot, be purely competitive, nor can it be in equilibrium. The existence of product differentiation, transactions costs, changing information, and uncertainty—both short- and long-run—all prevent the realization of any static competitive equilibria.[22] And in a world of uncertainty and change, all cost-determining-price rules, based on hypothetical conditions in some static equilibrium, become irrelevant for policy purposes. Yet most of the criticisms of firm predation and of business "excess capacity" are deeply rooted in static equilibrium welfare analysis.

It is important to understand that a competitive market process does create powerful incentives for entrepreneurs to

allocate resources such that market price and factor costs do *tend* toward equality, other things remaining the same. But other things (that is, market information and tastes) cannot actually remain constant. And since the market process can never be completed, the static long-run equilibrium condition can never be actually realized. (It would not be "ideal" even if it were completed.) Thus, it is a serious policy mistake to regard any divergence of price from explicit cost (average or marginal, short-run or long-run) as evidence of social inefficiency or of predatory pricing. It may only be an indication of a competitive market process at work under inevitable disequilibrium conditions.

The Shepherd Proposal

William G. Shepherd has argued that all "intent" and price-cost rules are unsatisfactory, and that the only two variables that should be relevant in determining illegal predation are market share "disparity" and "selective" action.[23] Practices are predatory and unfair if the "attacking" firm is "dominant" (in terms of its market share relative to the firm being "attacked") and if the firm employs "selective actions that are unavailable to its competitors." To allow such practices, according to Shepherd, would be unwise since it would make market competition "increasingly one-sided and ineffective."[24]

This is a curious argument for a public policy designed, presumably, to promote efficiency and consumer welfare. Dominant firms—that is, successful firms—are not to be allowed to initiate selective price or nonprice policies unless such practices are available (at the same cost?) to rivals. The matter can be put another way. Consumers of products are not to be provided with selective advantages by successful firms unless these advantages can be provided (at the same cost) by (all?) smaller rivals. Dominant firms are not to innovate selectively unless all firms can innovate. Dominant firms are not to advertise unless everyone can advertise at the same cost. Dominant firms should not provide special ("selective") services to specific customers unless smaller rivals are able to employ "comparable competitive actions." One could hardly imagine a predatory legal "rule" more destructive to the competitive market process than the one envisioned by Shepherd (or Williamson).

Dominant firms have achieved their position of "dominance" in free markets by being successful. They have innovated the

products and services that consumers prefer relative to rivals and potential rivals. That is why, presumably, these firms have grown faster than rivals and have become dominant. To specifically inhibit the rivalry of such business organizations *after* they have demonstrated their market efficiency does not appear consistent with a genuine concern for either efficiency or consumer welfare.

Shepherd and others appear to have fallen into a familiar theoretical antitrust trap: they have equated increased "competition" with an increasing number of business organizations or with a tendency toward more "equal" market shares. Policies that promote increasing numbers of entrants or that lower the market share of the dominant firm are simply accepted as "good." Policies that tend to eliminate less efficient suppliers and restrict the entry of high-cost entrants are seen as "bad." Yet, it should be obvious that the most appropriate policy from this perspective—but the worst policy for consumers—would be one where a dominant firm reduced its outputs, raised its prices, and refused to innovate. Such a policy would severely punish consumers, but it would not "threaten" any smaller rival; no smaller competitor would ever feel that it was under attack from the dominant firm. In fact, the more inefficient the dominant firm became, the better it would be from this perspective. Even government tariff protection would "help" since it would tend to foster a more "comparable competition." It is difficult to see how any of this is compatible with a genuine concern for consumer welfare.

Raising Rivals' Costs

A currently fashionable theory of business predation holds that a dominant firm can unfairly raise a rival's costs and thereby lessen competition in the marketplace. Economists Salop and Scheffman have suggested that certain business practices such as boycotts, exclusive dealing, research and development spending, and even advertising can be employed by a dominant firm to increase a rival's costs. For example, if "advertising expenditures initiated by the most efficient advertiser must be matched . . . by less efficient rivals,"[25] there could be a potentially predatory problem that might require an antitrust remedy.

This is a very dangerous line of "reasoning." It is distinctly reminiscent of an earlier antitrust era where every economic advantage or technical efficiency possessed by any firm was seen, incorrectly, as a pernicious barrier to entry. Annual autobody-

style changes (product differentiation) on the part of the dominant auto companies made it difficult for small firms to compete because it unfairly raised the costs of competition.[26] Economies of scale in production, transportation, and finance, or absolute economies associated with some revolutionary technology, might limit the entry of higher-cost suppliers. The FTC argued that successful advertising by Kellogg's and the other "dominant" ready-to-eat cereal manufacturers could make it difficult for smaller cereal suppliers to gain and hold market share.[27]

The basic error in this approach is that the overall purpose of the competitive process is forgotten. The competitive process is necessary in order to discover *what* consumers prefer and to discover *which* business organizations can supply those goods.[28] Consumer-approved product differentiation may well make it more costly for newer business organizations to compete, but this does not mean that the result is socially inefficient or requires any antitrust remedy.

Efficiency implies that resources should be put to uses that consumers value most highly. If consumers support annual auto-style changes, then *that* is the use to which resources should be put. Potential suppliers or existing smaller rivals can always attempt to convince consumers to support less product differentiation (or advertising)—at a lower price—or perhaps no year-to-year differentiation at all. Alternatively, potential entrants can always attempt to discover cheaper methods of production (which is what the Japanese auto companies did in the 1970s) that would allow increased rivalry with dominant firms. But, in the absence of such preference changes or discoveries, potential competitors are only "restricted" from additional production or higher market shares by the superior overall performance of the dominant companies and the revealed preferences of buyers. Performance and preference are entirely appropriate "restraints" on the entry of would-be business organizations. To describe and condemn such "barriers" as exclusionary or as predatory practices seriously misconstrues the social purpose of the market process.

Predation and Consumer Welfare

The literature on predation emphasizes that it is the predatory practices of the dominant firm that can eliminate rivals and lower consumer welfare. Yet, predatory practices—both price

and nonprice—cannot succeed at all without direct consumer/buyer support.[29] For example, if a dominant firm reduces its prices and prospective buyers choose to ignore these price reductions, then the price reduction cannot really be predatory. Potential consumer/buyers can decide, for instance, to preserve the number of rival suppliers by ignoring the price reduction and by continuing to purchase in the same old patterns. On the other hand, if consumer/buyers *do* alter their preferences and decide to support the price cutter, it is the buyers—and not the price cutter—that put pressure on the high-price firms, and it is the buyers—not the price cutter—that may ultimately eliminate some of the rival suppliers. But consumer/buyers can *always* eliminate certain suppliers by altering their buying preferences and choosing one product (for whatever reason) over another. Why should consumer/buyers be prevented by antitrust law from reallocating industry resources from high-price sellers to low-price sellers? How is this legal restraint in the consumers' interest?

It will not suffice to argue that such choices (to reward the price cutter) are not really in the long-run interests of buyers. No one can know (in advance) the long-run interests of buyers. Further, why are so-called long-run interests superior to short-run interests? Buyers can surely decide their *own* time preferences and then decide whether the advantages of short-run price reductions exceed the probable future disadvantages of fewer suppliers. Consumer choices are rational either way, and consumer "welfare" is only reduced when antitrust policy prevents consumers from determining the market supply structure that they apparently *do* prefer.

The same argument holds true with respect to nonprice predatory practices. Indeed, the relevant issues are exactly the same. If a dominant firm suddenly introduces some new innovation, it is up to consumers to decide whether that innovation ought to reduce the number of rivals or not. If they enthusiastically support the innovation at the expense of some rival products, then such decisions by consumers may well tend to eliminate specific suppliers. On the other hand, if consumers do *not* support the innovation, the innovation cannot threaten "competition" and cannot be predatory. In neither scenario is there a legitimate rationale for antitrust regulatory preferences to supersede the revealed preferences of buyers with respect to the pace and nature of technological change. Indeed, it would be difficult to imagine an intervention on the part of the antitrust

authorities or the courts that would be as potentially dangerous or damaging to future consumer welfare as this sort of innovation regulation.[30]

Market Structure and the Competitive Process

One implication of this discussion is that buyers in a free market may (occasionally) decide to support only one (or a few) major business organizations in some specific line of commerce. Such an extreme supplier situation is certainly possible (although not typical) and there is no reason, from a market-process perspective, to object to *any* momentary market structure of suppliers. After all, free markets are always open to potential rivalry and entry, and dominant suppliers can attempt to maintain their market positions only by maintaining an overall efficiency advantage over potential users of resources. This efficiency advantage can be produced either by a process of rivalry or by a process of interfirm cooperation. If dominant firms were to attempt to exercise any so-called monopoly power by reducing market output and raising market price, this behavior would tend to negate the market advantages that allowed such organizations to gain their dominant market positions in the first place. Such practices would tend to result in a severe loss of market share to alternative suppliers and, thus, create strong disincentive to attempt such practices in the first place. Government or legal restrictions on market entry might create some incentives to exercise monopoly power. But legally open markets would create continual incentives for dominant firms to be relatively more efficient than their rivals or potential rivals. Thus, *any* market structure of suppliers is compatible with an efficient market process as long as there are no legal barriers to entry.

Predatory Practices in Reality

John McGee has long been associated with the idea that predatory practices are not generally rational or efficient ways of gaining (or holding) a dominant market share.[31] Firms that engage in predatory pricing (pricing below cost) would stand to lose a considerable amount of revenue or profit funding any predatory “war.” If the dominant firm is large, the opportunity costs (lost profit) and risks (the war spreads; the length is indeterminate) are sure to create substantial disincentives to

engage in such activity. In addition, target rival firms may not easily be driven from business or, even if they are, their assets may be acquired by new business organizations that are willing to compete again as soon as the predatory price is lifted. In short, there are considerable financial risks associated with long-term price predation, and such risks create powerful disincentives for such practices, especially in industries with no legal barriers to entry.

Some laboratory and case-study evidence would appear to confirm the theoretical speculations concerning the disincentives associated with severe predatory price practices.[32] There are few unambiguous examples in business history where leading firms have attempted to gain or hold dominant market positions by engaging in extensive predatory practices.[33] Even the allegedly classic examples of such practices in the nineteenth-century petroleum and tobacco industries (involving Standard Oil and American Tobacco) are either exaggerated or unfounded. Standard Oil secured its market position in petroleum primarily through internal efficiency and merger and not through systematic predatory practices.[34] And while the American Tobacco Company may have occasionally employed severe price competition to gain market share—the great "snuff war" comes to mind—no generally predatory policy would have been intelligent (that is, profitable) in an industry (tobacco) with thousands of competitive suppliers and with no barriers to market entry.[35] Even when severe price competition did occur in the tobacco industry, consumers enjoyed these price "wars" immensely by purchasing greatly expanded volumes of tobacco products at very low prices—for years. Why antitrust should attempt to restrain such occasional practices—practices that so clearly benefit consumers directly—is not obvious.[36]

Conclusion

This article has suggested that the general theory of predatory practices is seriously flawed. Predatory behavior cannot be logically distinguished from benign competitive behavior either by intent or by any price-cost rules. Price reductions, selective or otherwise, and various nonprice rivalrous strategies (such as advertising and innovation) are all part and parcel of a competitive market process. This process serves an important social purpose: it serves to discover the products and services that consumers prefer, and the business organizations that can

provide those products and services. Antitrust regulation of this process is based on inappropriate equilibrium theorizing, and it serves only to inhibit the discovery of consumer preferences and the flow of resources from less efficient suppliers to more efficient suppliers.[37] Thus, the legal restriction or prohibition of any competitive practice is inappropriate and appears contrary to the newer antitrust reform attitudes.

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[2] Robert H. Bork, *The Antitrust Paradox: A Policy at War with Itself (*New York: Basic Books, 1978), chapter 16. See also Harold Demsetz, "Barriers to Entry," *American Economic Review*, 72 (March 1982): 47–57.

[3] Harold Demsetz, *The Market Concentration Doctrine*, (Dallas, Tx.: American Enterprise Institute—Hoover Institution Policy Studies, August 1973).

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[9] William Baumol and Janusz Ordover, "Use of Antitrust to Subvert Competition," *Journal of Law and Economics*, 28 (1985): 247–65.

[10] For a discussion of the Reagan antitrust proposal see *Washington Post*, January 19, 1986, pp. H1, 4, and *Washington Post*, January 20, 1986, p. E1. Also see *The Economist*, August 23, 1986, p. 25.

[11] D.T. Armentano, *Antitrust Policy: The Case for Repeal* (Washington, D.C.: Cato Institute, 1986).

[12] Steven Salop and David T. Scheffman, “Raising Rivals’ Costs,” *American Economic Review*, 73 (May 1983): 267–71.

[13] Phillip Areeda and Donald Turner, “Predatory Pricing and Related Practices under Section 2 of the Sherman Act,” *Harvard Law Review*, 88 (February 1975): 697–733.

[14] F.M. Scherer, “Predatory Pricing and the Sherman Act: A Comment,” *Harvard Law Review*, 89 (1976): 869–90.

[15] Oliver E. Williamson, “Predatory Practices: A Strategic and Welfare Analysis,” *Yale Law Journal*, 87 (December 1977): 284–340.

[16] See, for example, Paul L. Joskow and Alvin K. Klevorick, “A Framework for Analyzing Predatory Pricing Policy,” *Yale Law Journal*, 89 (December 1979): 213–70. This article is offered as a “decision-theoretic framework . . . for evaluating alternative predatory pricing rules” (p. 270). The courts have paid some attention to this debate. See *International Air Industries and Vebco, Inc*. v. *American Excelsior Company*, 517 F.2d 714 (1975); O. *Hommel Co*. v. *Ferro Corp*. 472 F. Supp. 793 (1979); and especially *Northeastern Telephone Company* v. *American Telephone and Telegraph et al*., 605 F.2d 201 (1981).

[17] Israel Kirzner, *Competition and Entrepreneurship* (Chicago: University of Chicago Press, 1973).

[18] Joseph Schumpeter, *Capitalism, Socialism and Democracy* (New York: Harper Torchbooks, 1950).

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[25] “Raising Rivals’ Costs,” *American Economic Review*, 73 (May 1983): 267–71.

[26] Franklin Fisher, Zvi Griliches, and Carl Kaysen, “The Costs of Automobile Model Changes since 1949,” *Journal of Political Economy*, 70 (October 1962): 433–51.

[27] *FTC* v. *Kellogg, General Mills, General Foods, and Quaker Oats*, Docket No. 8883 (1972). (The complaint was dismissed in 1982.) See also Richard Schmalensee, "Entry-Deterrence in the Ready-to-Eat Breakfast Cereal Industry," *Bell Journal of Economics*, 9 (1978): 305–27.

[28] Israel Kirzner, *Competition and Entrepreneurship* (Chicago: University of Chicago Press, 1973).

[29] *Antitrust Policy: The Case for Repeal*, pp. 42–44.

[30] Betty Bock, *The Innovator as an Antitrust Target*, Conference Board Information Bulletin, no. 174 (1980).

[31] John S. McGee, "Predatory Price Cutting: The Standard Oil (N.J.) Case," *Journal of Law and Economics*, 1 (October 1958): 137–69; and "Predatory Pricing Revisited," *Journal of Law and Economics* 23 (1980): 289–330.

[32] R. Mark Isaac and Vernon L. Smith failed to discover any price predation in a laboratory experiment. Moreover, simulating antitrust remedies for predation (such as the Williamson output restriction) had the unintended effect of raising prices and reducing efficiency. See R. Mark Isaac and Vernon L. Smith, "In Search of Predatory Pricing," *Journal of Political Economy*, 93 (April 1985): 320–45.

[33] Ronald H. Koller, "The Myth of Predatory Pricing: An Empirical Study," *Antitrust Law and Economics Review*, 4 (summer 1971): 105–23. See also Kenneth G. Elzinga, "Predatory Pricing: The Case of the Gunpowder Trust," *Journal of Law and Economics*, 13 (April 1970): 223–40.

[34] *Antitrust and Monopoly*, pp. 55–73.

[35] Ibid., pp. 85–95.

[36] Frank Easterbrook concludes, after a seminal criticism of the predation literature, that such practices (should they occur) generally enhance consumer welfare and should be *per se* legal. See Easterbrook, "Predatory Strategies and Counterstrategies," *University of Chicago Law Review*, 48 (spring 1981): 263–337.

[37] There are many (mostly private) legal cases that substantiate this position. See, for instance, the classic *Utah Pie Co*. v. *Continental Baking Co., et al.*, 386 U.S. 685 (1967). See also *Berkey Photo, Inc*., v. *Eastman Kodak Company* (457 F. Supp. 404 [1978] and 603 F.2d 263 [1979]) where the plaintiff (Berkey) argued that the successful innovation of Kodak's new instamatic camera (and film) was "predatory" and hindered its ability to compete. The thrust of most of the (private) predatory legal cases is an attempt by plaintiffs to restrain the competitive rivalry of

the more successful defendant firms. In short, antitrust law has been employed in an attempt to restrain trade.

Why the U.S. Economy Is Not Depression-Proof

Mark Skousen

> If the monetary policies of the 1920s brought forth the Great Depression, similar policies during the 1980s are likely to produce another depression.
>
> —Hans F. Sennholz[1]

In 1954, Milton Friedman delivered a lecture in Stockholm, Sweden, entitled, "Why the American Economy Is Depression-Proof."[2] In many ways, his published speech symbolized the new bold optimism of the contemporary economists in a post-Keynesian world. Economists and government officials, according to Friedman, have sufficient understanding of the inter-workings of the whole economy and the technical tools with which to prevent an economic downturn from turning into a full-scale depression. While considered a maverick on most subjects, on this issue the illustrious Chicago economist joined the chorus of neoclassical orthodoxy in unanimously proclaiming that another 1930s-style debacle is impossible.[3]

Friedman referred to several institutional changes made by government since the 1930s that would "render a major depression in the United States almost inconceivable at the present time."[4] These fundamental developments included the establishment of federal insurance on bank and savings deposits, the abandonment of the gold standard, and the substantial increase in the size of government and the welfare state.

The demonetization of gold was a critical step in the Federal Reserve's ability to ward off a major slump. Friedman cogently argued that defending the gold standard during a period of credit expansion would eventually force a monetary collapse, as it did in 1929–33. The removal of any barriers to monetary inflation is essential, he said, since "there has been no major depression that has not been associated with and accompanied by a monetary collapse."[5] In short, Friedman believes that a depression can be avoided as long as the money supply does not decline.

Friedman's lecture was given at a time when there was

considerable concern that a mild recession in 1953 would degenerate into a major depression. He cited Colin Clark, a prominent British economist, as one who held this pessimistic view. But the Chicago monetarist denied such a possibility, stating confidently that "anything more than a minor economic recession is extremely unlikely."[6] Over the longer term, he forecast "a period of recurrent bouts of inflation produced by overreaction to the temporary recessions that punctuate the period."[7] He also predicted that the inflation would not turn into a runaway inflation.

Friedman's lecture has proven remarkably prophetic so far. The 1953 recession ended officially in mid-1954. Since then, the United States has experienced a series of economic expansions, punctuated by occasional contractions, but none severe enough to qualify as a 1930s-style depression. Throughout the past thirty-five years, the economy has faced a general rise in consumer prices, but no runaway inflation.

Have Friedman's Views Changed in Thirty-five Years?

What about today? In the face of the stock market panic in October 1987 and renewed predictions of either depression or runaway inflation, does Friedman see things differently? Apparently not. Referring to his 1954 lecture, he recently wrote: "I have seen no reason since then, and see none now, to change that conclusion."[8] Furthermore, he states elsewhere:

> I do not expect any repeat of the Great Depression. I expect another garden-variety type of recession unless you have strongly protectionist trade legislation come out of the Congress plus undesirable tax increases. In that case, the betting is off and the recession might be much more severe than I now anticipate.[9]

Why the American Economy Is Now Vulnerable

My thesis is that Friedman's "built-in stabilizers" are not a sufficient condition to prevent the U.S. economy from suffering a devastating economic debacle some time in the future.[10] For several reasons to be outlined shortly, I believe that the U.S. economy suffers from certain structural defects that under the

right circumstances could precipitate a financial disaster similar in scope to the 1929–32 crisis.

I am well aware of the fact that numerous free-market economists and hard-money investment advisors have predicted economic calamity over the past two decades.[11] So far their dire forecasts have not materialized because they underestimated the government's ability to defuse the crises and postpone deflation. But now I believe we are entering a new era that could be more dangerous than the 1970s or 1980s. Although a future economic crisis may not produce the degree of unemployment and other marked effects associated with the Great Depression in the 1930s, it could involve a substantial reduction in the standard of living of most Americans for a period of time.

The Definition of a Depression

Before presenting my arguments, I need to make clear what is meant by a depression. The same question was asked of Friedman following his lecture in Sweden. Friedman adopted the traditional view of defining a depression in terms of the level of unemployment. Although admitting that the distinction between a recession and depression is statistically imprecise, Friedman said, in essence, that he would consider an 8 percent unemployment rate to be a "mild recession," 8 to 13 percent to be a "severe recession," and 14 to 25 percent or more to be a "depression."[12]

The economic emergency I am expecting could conceivably cause the rate of unemployment to reach 15 percent or more, but the definition of depression should include other measurements in addition to the level of unemployment. The definition of depression should be expanded because, in an age where the government views itself as an employer of last resort, the country could face a severe depression while official unemployment statistics may remain artificially low due to ubiquitous government hiring.

In many socialist countries, the government is the principal employer. Consequently, officially there is little or no unemployment, even though citizens are undoubtedly employed in an inefficient manner (commonly referred to as "underemployment"). It is quite conceivable that an economic crisis could be of such magnitude in the United States that the federal government would attempt to employ millions of Americans, in a civilian or military status, in an effort to keep

official unemployment statistics politically acceptable. Such a makeshift solution might be a way of spreading the misery around, but it would not eliminate the misery and would, in fact, increase it by reducing the incentive for productive citizens to work.

A depression should be properly defined as a substantial decline in the standard of living. A common way to determine material well-being is to measure the year-to-year change in individual income levels, adjusted to account for changing purchasing power of the national currency. It is imperative that nominal incomes be adjusted by price changes. In the case of a deflation, price reductions would enhance nominal income. In the case of an inflation, especially a runaway inflation, price increases would be detrimental. History has shown that depression—that is, substantially lower standards of living—is possible in times of either rising or falling prices. While price figures may not be accurate, especially if they are manipulated by the government data gatherers, they can reflect the general decline in people's material well-being. Therefore, as a rule of thumb, I would define a depression as a period of time (say, one to five years) when average real incomes decline substantially (say, 30 percent or more). This decline in real income would undoubtedly coincide with significant unemployment and underemployment of labor and resources. In short, the United States and other western countries could suffer from serious macroeconomic disequilibrium.

The use of per capita real income may not completely capture the depth of an economic downturn, however. It does not take into account, for example, the number of family members that may be forced by economic necessity to seek employment. The increasing number of women in the work force in the 1970s and 1980s was not simply a response to the women's liberation movement, but reflected the increased necessity of earning a higher family income in order to maintain the same standard of living in an inflationary environment. Furthermore, if the government placed large numbers of the unemployed on its payroll, per capita income figures might not reflect the sharp decline in the standard of living.

Worse than 1929?

In order for a future depression to be "worse than 1929," as Hans Sennholz predicts, we would need to see:

1. Gross national production (in real terms) decline by more than 30 percent,
2. Per capita personal income (in real terms) drop by 28 percent or more,
3. Private investment (in real terms) fall by more than 86 percent,
4. Stock prices plunge by more than 80 percent,
5. The unemployment rate climb by over 25 percent,
6. Retail prices drop by an average of 24 percent, wholesale prices by 31 percent, and raw commodity prices by 42 percent,
7. The business bankruptcy rate rise by 50 percent or more, and
8. Nearly half the commercial banks fail.[13]

The magnitude of the Great Depression is overwhelming; it is hard to conceive of it happening again. The two worst recessions the United States has experienced since the 1930s occurred in 1973–75 and 1980–82. If we examine in table 1 a few selective statistics, we see that the 1973–75 and 1981–82 recessions pale by comparison.

Table 1
Recent Recessions versus the Great Depression: Selective Statistics

Factor	*1929–32*	*1973–75*	*1980–82*
Real GNP	-30%	-3%	-1%
Per capita real income	-28%	-1.1%	0.0%
Private gross investment (real)	-86%	-31%	-22%
Unemployment	25%	8%	11%
CPI	-24%	+26%	+30%
Stock prices	-88%	-45%	-25%
Money supply (M1)	-21%	+9%	+16%
Government expenditures as a percent of	10%	35%	40%

GNP

Source: *Statistical Abstract of the United States* (Washington, D.C.: U.S. Department of Commerce, 1980, 1987); *Historical Statistics of the United States: Colonial Times to 1970*, (Washington, D.C.: U.S. Department of Commerce, 1975); and *Business Conditions Digest* (Washington, D.C.: U.S. Department of Commerce, 1987).
Note: Stock prices based on New York Stock Exchange Composite Index.

Undoubtedly the substantial increase in the size of government played a significant role in preventing the GNP from declining much during the recessions in 1973–75 and 1980–82. On the other hand, the large size of government did not prevent private investment from falling sharply and unemployment from rising significantly. Another important observation is that the money supply, as measured by M1 or M2, did not decline in absolute terms during 1973–75 and 1980–82. Nevertheless, the economy suffered two severe recessions. Despite Friedman's contention that a depression is impossible without a contraction in the money supply, it is clear that a severe economic recession is conceivable even while the central bank continues to inflate.

Still the question remains: what catastrophic event could precipitate a depression equal or greater in magnitude than 1929–32?

Instability and the Banking System

I begin my case with a central point on which Friedman and I agree: whether or not we have another depression depends primarily on the banking system. The banking system is the linchpin of financial and economic stability in the world. The only way the economy could collapse (other than by war or acts of God) is by the public losing faith in the monetary system of this country. I do not accept the popular conservative view that an excessive national debt could alone cause a depression.

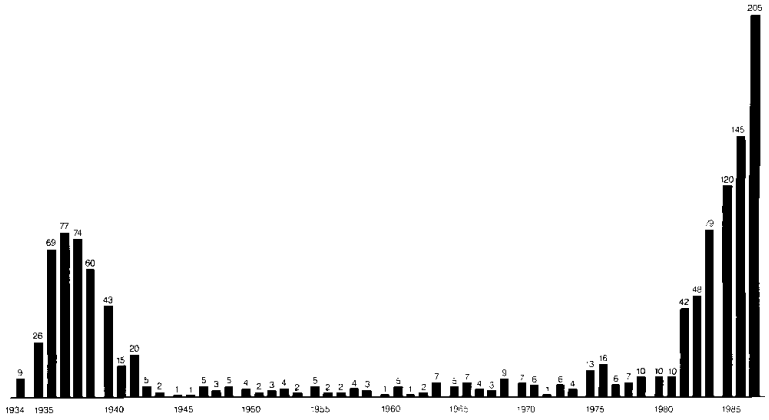

Figure 1. U.S. Bank Failures, 1934–85

Source: VERIBANC, Inc. (Woburn, Mass. 01888) 1988; from Federal Deposit Insurance Corporation Statistics. Reprinted with permission.

The recession turned into a depression primarily in the 1930s because of bank failures, which in turn caused the money supply to decline dramatically. (However, the length of the 1930s depression was inordinately long due in part to the inflexibility of wages and other forms of government intervention.) Because of the extremely low level of cash reserves held by the commercial banks in the early 1930s, the demands for cash by nervous depositors resulted in a nationwide financial panic; one bank failure led to another, and in the end, there was a massive contraction in the monetary aggregates.[14]

Friedman maintains that the establishment of federal deposit insurance has virtually eliminated banking panics and bank failures. “In my view, the federal insurance of deposits is by all odds the most important of these changes in its effects on the cyclical characteristics of the American economy.” More to the point, “Federal deposit insurance has made bank failures almost a thing of the past.”[15]

While his statement about bank failures was accurate in 1954 and in 1968, when he updated the article for *Dollars and Deficits*, it is no longer true, especially since the early 1980s. Figure 1 shows that the number of U.S. bank failures is growing rapidly.

There is little evidence that this alarming trend in abating. According to Veribanc, Inc. (a private independent rating service of U.S. financial institutions), the banking industry in general has been steadily deteriorating since the early 1980s, based on a variety of indicators. Using data provided by the Federal Deposit

Insurance Corporation (FDIC) and other bank regulatory agencies, the number of banks operating at a loss is substantial. In the fourth quarter of 1987, 3, 554 banks (or 26 percent of all commercial banks) were losing money. (This is down slightly from the fourth quarter of 1986, but banking experts considered it an anomaly.) During 1985–87, the number of banks classified in Veribanc's "red" category, signifying those banks that will be forced into liquidation if losses continue at the same rate, increased from 514 to 635. The number of commercial banks declined slightly, from 14,344 to 13,616, even though the economy was in the midst of the Reagan boom.

The financial condition of the savings and loan industry is much worse. The number of S&Ls operating at a loss increased from 679 in the fourth quarter of 1985 to 1,068 in the fourth quarter of 1987. Nearly one-third of all S&Ls have a tangible net worth below zero.

Figure 2 demonstrates the secular trend in the banking industry in terms of the number of federally insured commercial banks that could reach zero equity in less than twelve months.

Is Federal Insurance Destabilizing in the Long Run?

What can explain the secular deterioration in the banking industry? Perhaps one of the reasons long-term instability has been the fact that banking deregulation has been a gradual process, in contrast to the airline industry, which was quickly deregulated in the early 1980s and appears to have achieved relative stability by the late 1980s.

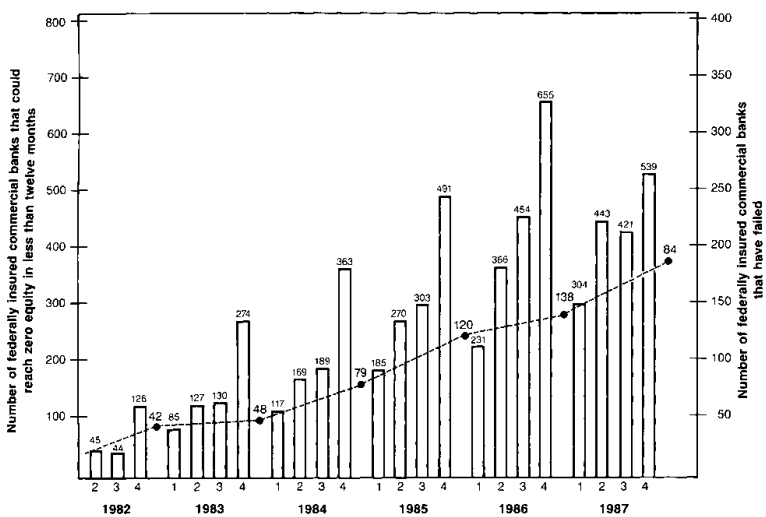

Figure 2. Deterioration of the Banking Industry, 1982–87.
Source: VERIBANC, Inc. (Woburn, Mass. 01888) 1988; from Federal Reserve Statistics. Reprinted with permission.

Part of the responsibility may also rest with federal insurance itself. Under current law, checking and savings deposits are guaranteed up to $100,000 per account by a federal agency. By making customers' deposits virtually risk-free investments, the government is indirectly encouraging bank managers to take greater speculative risks. The theory is that financial officers will take greater chances with depositors' funds if depositors are unconcerned about the quality of the bank's portfolio. This appears to have been the case in the 1970s and early 1980s, when major banks across the country invested in high-risk deals in oil, real estate, and Third World obligations. In the long run, all forms of government intervention backfire.

Moreover, a majority of investors ignore the safety of banks and simply seek out the highest yields on CDs, encouraging the growing problem, especially in the S&L industry, of paying above market yields on savings deposits in a desperate attempt to avoid default.

As it now stands, it will require substantial injections of new funds to cover the insured liabilities of customers' funds in banks and savings institutions that will fail over the next few years. The FDIC currently has reserve assets worth only 1.2 percent of the $1.75 trillion of insured commercial-bank deposits. Of the FDIC's $20 billion in reserves, a large portion is comprised of yet-to-be-sold assets of failed banks. Veribanc estimates that liquid funds amount to between $4 billion and $10 billion, representing a mere 0.5 cents of available FDIC reserves per dollar of insured deposits.

The Federal Savings and Loan Insurance Corporation (FSLIC) publicly acknowledged its insolvency in 1987. Congress issued $10.8 billion in bonds to recapitalize the FSLIC. However, recent closures and consignment actions against several large thrifts have already drawn on a significant portion of this amount. The 339 S&Ls that were insolvent by regulatory standards at the end of 1987 were continuing to lose money at the rate of $9 billion a year, with the regulatory net worth of these institutions amounting to a negative $14 billion. Veribanc estimates that the total tangible net worth of all savings institutions was minus $54.4 billion in 1987. It believes that Congress will be required to inject between $25 billion and $50 billion into the FSLIC over the next few years to pay all the liabilities of the defaulted banks.

How Fragile Is the Financial System?

Because the commercial banking and savings structure is still built on a fragile fractional reserve system, a widespread distrust of the banks by the general public could cause a massive hemorrhaging of the financial system. If the United States adopted a 100 percent reserve system, as Friedman and other monetarists have advocated in the past, the financial system would be on a much sounder basis and would make a credit collapse highly improbable.[16]

Unfortunately, however, the United States has not removed this point of instability. Hence, the banking system is just as vulnerable as it was in the 1930s, in terms of low cash reserves in relation to demand deposits. Under the Depository Institutions Deregulation and Monetary Control Act of 1980, most financial institutions are required to maintain only 12 percent of their checking-account deposits in the form of cash (bank notes) or non-interest-bearing reserves at the Fed. (See table 2 for reserve requirements.)

The government has demonstrated its ability to control the financial system in the face of large bank failures, as in the case of the Continental Illinois Bank in 1984. As long as only a few banks fail, occasionally, the government should be able to contain the ongoing crisis and keep it from spreading throughout the country. While the number of annual bank failures has risen sharply since 1980, it has not yet approached the level of the 1930s depression, when nearly half the commercial banks closed their doors permanently. However, if numerous financial institutions (including several large banks) begin closing their doors, there could be a universal effort by customers to convert deposits into cash. The result would be a massive liquidity squeeze. Theoretically, only 12 percent of checking-account customers would be able to obtain cash, although, in reality, the figure is significantly lower since most reserves are actually held in a noncash form at the Fed. The percentage is even smaller for holders of savings accounts and time deposits because of lower reserve requirements. Commercial banks in fact have only approximately $24.5 billion in actual cash (coins and currency) on hand, according to the Veribanc. This represents only a minuscule 4.5 percent of checking-account deposits, and 1.3 percent of all savings deposits! Depending on the severity of the crisis, the Fed would have to transfer huge amounts of currency to individual banks and call upon the Bureau of Engraving and

Printing to increase the production of new bank notes on a massive scale.

Table 2
Legal Reserve Requirements under 1980 Banking Act

Type of Deposit	*Reserve Requirement*	*Range in Which Fed Can Vary*
Checking accounts		
First $30 million	3%	no change allowed
Above $30 million	12%	8–14%
Time and savings deposits		
Personal	no required reserves	
Nonpersonal		
Up to 1 1/2 years maturity	3%	0–9%
Maturity of over 1 1/2 years		0–9%

Source: Paul A. Samuelson and William D. Nordhaus, *Economics* (New York: McGraw-Hill, 1985), p. 275.

At the present time, the money supply, M1, is approximately $770 billion, while currency in circulation is $223 billion, or 29 percent of M1. Thus, if a sizable portion of the population wished to convert bank deposits to cash, the government would face a serious shortage of the supply of currency, which has a theoretical demand of over $500 billion. And that counts only the checking-account deposits, not time deposits. It might take months for the Treasury to fulfill the demands for cash. Banks and savings institutions have the legal right to impose a thirty-day moratorium on savings withdrawals, but no such restriction exists on checking-account deposits.

A moratorium on bank withdrawals may be inevitable in a liquidity squeeze as a result of another common banking practice: the mismatching of maturities between deposits and loans (what is frequently referred to as borrowing short and lending long). Checking accounts and passbook savings deposits are usually repayable on demand, while loans to individuals and businesses are repayable over long periods of time. Even the maturity dates on certificates of deposit are not usually matched

with the repayment dates on loans. Harry Browne concludes: “It’s possible that 90 percent of the banks in the U.S. are vulnerable to anything that could cause depositors to want to withdraw unusual amounts of money—while the banks are powerless to recover the necessary funds earlier from their borrowers.”[17]

The Interdependence of Banks

Another potential weak point in the banking system is the interdependence factor. Commercial banks and savings institutions are highly interconnected with each other. Smaller regional or state banks maintain deposits and purchase CDs from larger institutions in New York, Chicago, San Francisco, and other financial centers. It is also a common practice for smaller banks and S&Ls to sell commercial loans and mortgages to large financial institutions. Sometimes a small but aggressive bank can destabilize the whole banking industry. For example, Continental Illinois Bank and SeaFirst Bank in Seattle bought oil-related loans from Penn Square Bank, a relatively unknown institution in the Midwest. When Penn Square’s billion-dollar loan programs went bankrupt in the early 1980s, it caused a serious run on Continental, the eighth largest commercial bank in the United States, and destroyed the equity value of SeaFirst’s shareholders. SeaFirst had to be bought out by BankAmerica, and Continental Bank had to be bailed out by the FDIC. More recently, the FDIC has come to the rescue of another large bank, First RepublicBank of Dallas. It remains to be seen what impact failed Texas banks will have on the rest of the country.

The federal government, always aware of a potential liquidity crisis, has made contingency plans to prevent bank runs in isolated cities from spreading elsewhere. Among other control measures, the Monetary Control Act of 1980 gives the president emergency power to declare bank holidays in specific cities in the United States where bank runs may be happening.

The Engine of Macroeconomic Instability

What could bring about a wholesale banking crisis and subsequent worldwide depression? The primary force is the increasing instability in fiscal and monetary policies of western governments. The inflationary policies of the West have created a monstrous boom-bust cycle that has gradually worsened over the past thirty years. The effects have been felt both regionally and

nationwide. As a result, banking and corporate balance sheets have gradually deteriorated, especially after each recession.

Nonfinancial corporation debt in the United States reached $1.8 trillion in 1987, triple the $586.2 billion total in 1976. Interest payments have risen sharply, companies' liquidity has fallen, and credit quality has suffered. As Mickey D. Levy, chief economist of First Fidelity Bank Corp. in Philadelphia, warns: "Once the economy begins to weaken, as it sooner or later will, the high levels of corporate debt will exacerbate the downturn."[18]

Government-induced inflation via the credit markets does not simply raise prices in a relatively innocuous manner; it also creates massive distortions in the macroeconomic structure. It induces billions of dollars to be spent in wasteful malinvestments in the capital-intensive industries (e.g., real estate, oil and gas, plants and equipment, durable goods, and long-term projects).[19] Such an excessive speculative boom in the capital markets cannot last and eventually must be liquidated in the contractual phase of the business cycle. In essence, too many long-term projects and durable capital goods are produced for which there is ultimately insufficient demand. While it is difficult to quantify the level of malinvestments at any time, the degree of imbalance becomes apparent during a recession.

The United States and other western nations have been willing to endure recessions, even severe downturns, since World War II, and this development has been healthy in promoting a return to a stable and permanent economic recovery. However, it is apparent that government officials are unwilling to permit a complete liquidation of the malinvestments in the economy, which would require a full-scale deflationary depression, except on a regional basis as evidenced in the oil and agricultural depressions in the Midwest. Thus, every time the country has reached the brink of a severe recession, the government has stimulated another credit expansion to avert an economic collapse. The country's leaders are apparently afraid to let market forces determine the bottom of the economic contraction. One gets the impression that if the Fed did not reinflate, the economy would eventually collapse as the market sought to reestablish the real time preferences of individuals.

Hayek's Rule of Monetary Acceleration

In the 1930s, Hayek argued that the only way for government to

avoid an economic downturn after an inflationary expansion is to accelerate the level of monetary expansion. I call it "Hayek's Rule of Monetary Acceleration."[20] Hayek stated that "in order to bring about constant additions to capital, it would have to do more: it would have to increase [credit] at a *constantly increasing rate*."[21]

Federal Reserve policy in the 1980s may be a classic manifestation of Hayek's Rule, as reflected in figure 3. It shows the quarter-to-quarter changes in M1 from 1960 to 1988. It is clear from the chart that (1) monetary expansion is becoming more and more inflationary and (2) monetary policy is becoming more and more volatile. In 1979, the maximum increase in M1 was 9 percent; in 1981, 12 percent; in 1983, 14 percent; in 1986, 18 percent.[22] Every attempt by Fed officials to "fight inflation" has ended abruptly a few years later as fears of a recession/depression surface. Friedman compares monetary policy to a driver turning the steering wheel of a car and hitting one side of the road and then veering over to the other side of the road. But then there is the danger that the driver will give "the steering wheel a jerk that threatens to send the car off the road."[23] Judging from recent monetary policy, the driver is becoming a reckless madman at the wheel.

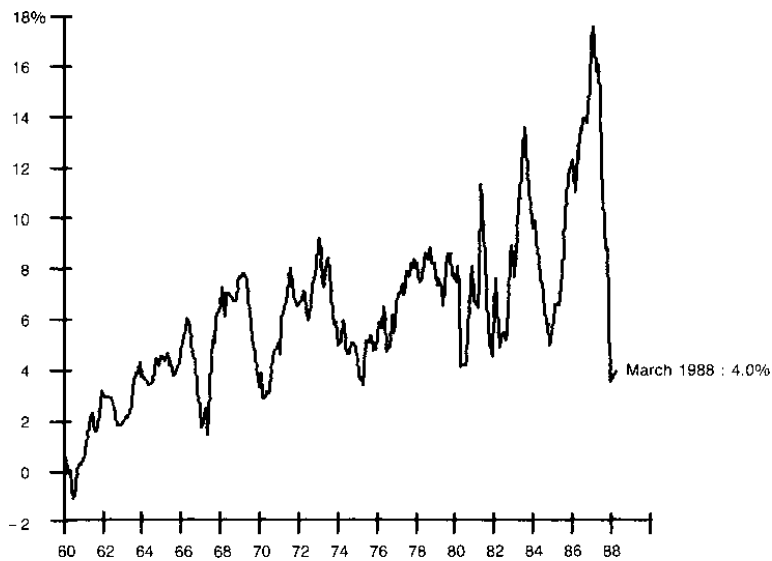

Figure 3. Quarterly Changes in U.S. Money Supply (M1), 1960–88

Source: Ed Hyman; C.J. Lawrence, Morgan Grenfell Inc., New York.

The reinflation efforts of the Fed are not entirely a voluntary decision. According to Hayekian theory, the Fed cannot adopt a monetarist rule of increasing the money supply at a steady rate (3–5 percent) without causing a severe downturn in economic activity. Friedman himself admits this to be the case and advocates a gradual reduction in monetary inflation until a low monetary rule can be established on a permanent basis. But the Fed has not been so patient, apparently abandoning the use of money-supply targets in the early 1980s. The reason can be traced back to the Hayekian theory of macroeconomic disequilibrium. That is, if the central bank inflates the money supply at double-digit rates via the credit markets and then adopts a monetary rule below the previous rate of inflation, the effect will be a serious recession revealing the malinvestments in the capital-goods industries. Credit-oriented inflation presupposes a bust at some point.[24]

The longer monetary authorities maintain a "no-recession" policy, they increase the risk of runaway inflation. This is the inevitable result of Hayek's Rule. Figure 3 indicates that the United States is gradually moving in that direction. The next time the Fed panics, M1 may accelerate to a 25–30 percent rate if the M1 trend continues. This suggests the possibility that if a depression threatens the country, the central bank will attempt to inflate its way out. Moreover, given the emergency powers granted to the executive branch and the immense size of the federal government, it is quite conceivable that Washington will impose severe economic controls in an effort to contain the crisis.

The Increasing Risk of a Financial Accident

Microeconomic laissez-faire tends to undermine macroeconomic interventionism. As central banks reach higher and higher levels of monetary hyperextension, they increase the risk of precipitating a financial accident. Specifically, in the face of such extreme instability, many individuals, corporations, and institutions in the United States and elsewhere may seek to avoid a perceived disaster by acting early to eliminate debts, build a strong cash position, sell assets, buy gold, hoard currency, and so on. Anticipating deflation, some investment companies, banks, and speculators may withdraw suddenly and unexpectedly from major positions in securities, bonds, and deposits. There may be a run on the dollar, just as there were occasional runs on gold under the pre-1971 gold standard. There is no question that

western governments are deeply concerned about the possibility of a worldwide panic in the foreign currency markets. Floating exchange rates do not eliminate speculative fever. As Sennholz states: "With floating exchange rates . . . any event, no matter how small, could trigger strong speculative movements that would cause exchange rates to fluctuate widely."[25]

Milton Friedman notes significantly that in the autumn of 1931, after England went off the gold standard, the Federal Reserve authorities feared a gold drain from the United States. Friedman records:

> Although their gold reserves greatly exceeded legal requirements and were extremely high by any absolute standard, they succumbed to something approaching panic and proceeded to take strong deflationary measures, putting up the bank rate more sharply and suddenly than at any previous time in their history—and this after two years of economic contraction. . . . True, the Reserve system reversed its policy in early 1932 and undertook moderately expansionary measures; but by then it was too late. Measures of this magnitude might easily have saved the day in 1931; by 1932 they were utterly inadequate to stem the raging tide of deflation that the Reserve system had unleashed. [26]

One wonders whether today's monetary system is that much different from that of the early 1930s. Certainly the international dollar standard makes it possible for inflation to last much longer than it could under a strict gold standard. Nevertheless, the Federal Reserve continues to adopt tight-money policies from time to time in an effort to temper inflation and bolster the U.S. dollar on foreign-exchange markets. Such actions are reminiscent of previous efforts to defend the gold standard. The Fed took strong "anti-inflation" action in 1979 under Chairman Paul Volcker and again under Alan Greenspan in 1987. Could an inordinate concern over the value of the dollar overseas lead Fed officials to repeat history by allowing monetary policy to remain too tight for too long? As in 1932, the Fed may eventually recognize its mistake, but it may be too late this time to stem the raging flood of deflation. The question becomes: have Federal Reserve officials learned from their mistakes of the past, or will they behave as recklessly as they did in the early 1930s? Having

observed their actions of the past thirty years (as evidenced in figure 3), I see no reason to have confidence in them in the future. Serious if not fatal mistakes will be made over the next several years, any one of which could produce a worldwide financial panic and economic depression.

The Stock Market Panic of 1987

The October 1987 stock-market debacle was worldwide in scope. The initial downturn in the financial markets was caused by the Fed's tight-money policy and rising interest rates in 1987. The 508-point drop in the Dow Jones Industrial Average on October 19 was a classic panic, reflecting a series of bad economic news, the herd-like instinct of technical-trading systems, and ultimately the complete loss of confidence in the financial system by individual investors and institutions. But what was even more disturbing was the liquidity crisis that hit the day after on October 20, an event hardly publicized until weeks later. *The Wall Street Journal* reported:

> Phone calls started pouring into officials at the Big Board and the Federal Reserve Bank of New York. Angry securities dealers reported that foreign and U.S. regional banks were cutting back credit to the securities industry. Bankers Trust told Wall Street firms that it would stop extending unsecured credit —loans not collaterized by assets.
>
> Executives at one big Wall Street securities firm were shocked when another U.S. bank Tuesday refused to deliver promptly $70 million in West German marks that it had sold to the firm in a foreign-exchange trade. Apparently, the bank feared that it might not be paid promptly—if at all—for the marks. . . .
>
> After learning of the credit squeeze facing Wall Street, Messrs. Greenspan and Corrigan [president of the Federal Reserve Bank of New York] feared that something far worse than a stock-market panic might be in the offing. If credit dried up, securities firms could start to collapse, much as the banks did after the 1929 crash. Fed officials saw a real threat of gridlock developing in the markets: Even the simplest financial transaction might have become

impossible.[27]

In short, the stock-market crash had all the markings of a financial accident that could have closed major markets indefinitely. Of course, the Fed intervened and prevented it from happening by guaranteeing the banks' unsecured credit to security dealers. But it is precisely this type of unexpected event that can trigger a worldwide panic, one that may not always be so easily resolved by monetary authorities.

Were the banks beneficiaries of the collapse in stock values? After the stock-market crash, one economist told *Time* magazine: "In the 1930s when things looked bad, people ran from the banks out of fear. In 1987 people run to the banks to put their money in, because this time the banks are among the safest things around."[28] This viewpoint is not entirely accurate, however. Many investors withdrew cash from their bank accounts following the stock-market collapse. There were reports that many banks were short $100 bills. Nevertheless, the economist has a point. If the public maintains confidence in the banking system, the possibility of another depression is remote. But if the banks are viewed with grave suspicion and inadequately prepared to handle large cash withdrawals, another economic collapse is a very real threat.

The Increased Size of Government: Boon or Bane?

Friedman and other neoclassical economists argue that the increased size of government is a "built-in stabilizer" in preventing another depression. Table 1 demonstrates how government has grown since the Great Depression.

Federal, state, and local spending programs played a key role in sustaining the economy and were the principal reason why real GNP declined only a fraction during the 1973–75 and 1980–82 recessions. On the other hand, an expanding state can be a serious drag on the economy in terms of confiscatory taxes and bureaucratic rules for private enterprise and inefficient supply of public services. If the government becomes too large and socialistic, it can cause a permanent depression that may not be evident in the government statistics. The burgeoning state may not be reflected in unemployment figures, but underemployment and underproductivity will be evident everywhere.

Summary

The U.S. economy has been remarkably resilient over the years. In the turbulent 1970s, it was able to rebound from the energy crises, food shortages, and double-digit inflation. In the disinflationary 1980s, it has had to overcome major credit crunches, volatile financial markets, and banking crises. In short, Armageddon has been postponed.

Nevertheless, while the United States and other western countries may be depression-resistant, they are not depression-proof. They are highly susceptible to deep recessions from time to time. Governments have been remarkably successful in averting disaster over the past fifty years. One wonders if Armageddon can be postponed indefinitely. So far, the government forces of inflation have effectively beaten back the free-market forces of deflation. But while the government has won many battles, the war is not over. Macroeconomic imbalance is still very much in evidence; and it is, in fact, growing as monetary and fiscal policies become more and more precarious. As long as the financial-banking system is built on a volatile, destabilizing inflationary policy coupled with a fragile fractional reserve system, the possibility of financial chaos and a subsequent economic cataclysm should not be discounted.

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[1] Hans F. Sennholz, “Worse than 1929,” in Sennholz, *Debts and Deficits* (Spring Mills, Penn.: Libertarian Press, 1987), p. 89.

[2] Milton Friedman, “Why the American Economy is Depression-proof,” in Friedman, *Dollars and Deficits* (Englewood Cliffs, N.J.: Prentice-Hall, 1968), pp. 72–96. Originally appeared in *Nationalekonomiska Foreningens Forhandlingar* (1954).

[3] The only other economist I know who has written on this subject is Gottfried Haberler. Haberler offers an excellent review of all the major explanations of the Great Depression, including Austrian views, and concludes that another deflationary depression “is almost inconceivable,” while an inflationary depression “is not unthinkable” and inflationary

recession is more likely in the future. See Gottfried Haberler, "The Great Depression of the 1930s—Can It Happen Again?" in *Selected Essays of Gottfried Haberler*, Anthony Y.C. Koo, ed. (Cambridge, Mass.: MIT Press, 1985), pp. 405–26.

[4] Friedman, "Why the American Economy Is Depression-proof," p. 74.

[5] Ibid., p. 79.

[6] Ibid., p. 89.

[7] Ibid., p. 90.

[8] Milton Friedman, "1929 and 1987: The Differences," *National Review* (November 20, 1987).

[9] Letter from Milton Friedman to the author, dated December 23, 1987.

[10] It is inappropriate to set a specific timetable as to when another depression will happen. I do not subscribe to Professor Ravi Batra's determinist views that a deflationary depression is inevitable in 1990. See his *The Great Depression of 1990* (New York: Simon and Schuster, 1987). Since economic events are determined by human action, not senseless machines, setting a specific date for an occurrence is an unscientific form of forecasting. Batra bases his prediction on past cycles. But history never repeats itself in exactly the same fashion. It is incongruous to compare the 1980s to the 1920s, year for year, as Batra does. There are similarities, but there are also major differences, such as the size of government. Strangely, despite Batra's claim that the depression is inevitable, he recommends that it can be avoided by the government imposing a wealth tax and rescinding the Reagan tax cuts. But the reduction in marginal tax rates may have been one of the few genuinely beneficial acts by the Reagan administration. Indeed, a reversal of these tax cuts might well cause a depression.

[11] Predictions of imminent depression in the 1970s were made primarily by hard-money investment writers such as: Alexander Paris, *The Coming Credit Collapse* (New Rochelle, N.Y.: Arlington House, 1974); C.V. Myers, *The Coming Deflation* (Arlington House, 1976); Douglas R. Casey, *Crisis Investing* (Los Angeles: 76 Press, 1979); and Howard J. Ruff, *How to Prosper during the Coming Bad Years* (New York: Times Books, 1979).

[12] Friedman, "Why the American Economy Is Depression-proof," p. 94. Friedman's estimates of unemployment are based on the U.S. civilian labor force in the early 1950s. At the beginning of his lecture (p. 72), he also refers to industrial production, GNP, prices, interest rates, and other data as a means

of measuring economic activity.

[13] Figures are based on data from *Historical Statistics of the United States: Colonial Times to 1970* (Washington, D.C.: U.S. Department of Commerce, 1975).

[14] Milton Friedman and Anna J. Schwartz, *The Great Contraction: 1929–1933* (Princeton, N.J.: Princeton University Press, 1963), pp. 3–5.

[15] Friedman, "Why the American Economy Is Depression-proof," p. 75.

[16] The 100 percent reserve proposal is discussed in Friedman, *A Program for Monetary Stability* (New York: Fordham University Press, 1959), and Henry Simons, *Economic Policy for a Free Society* (Chicago: University of Chicago Press, 1948). To my knowledge, the 100 percent reserve concept has not been discussed recently by monetarists.

[17] Harry Browne, *Why the Best-Laid Investment Plans Usually Go Wrong* (New York: William Morrow, 1987), p. 348. Browne and his associate, Terry Coxon, have outlined an intriguing "deflation" scenario in their book, *Inflation-Proofing Your Investments* (New York: Morrow, 1981), pp. 59–83.

[18] "Borrowing Binge: Takeover Trend Helps Push Corporate Debt and Defaults Upward," *Wall Street Journal*, March 15, 1988.

[19] Studies on macroeconomic disequilibrium can be found in F.A. Hayek, *Prices and Production*, 2nd ed. (New York: Augustus M. Kelley, 1935); Murray N. Rothbard, *America's Great Depression*, 4th ed. (New York: Richardson and Snyder, 1983); and Gerald P. O'Driscoll, Jr., and Mario J. Rizzo, *The Economics of Time and Ignorance* (New York: Blackwell, 1985).

[20] Hayek, *Prices and Production*, 2nd ed., pp. 148–52. See also Hayek, *Monetary Theory and the Trade Cycle* (London: Jonathan Cape, 1933), pp. 212–18.

[21] Hayek, *Prices and Production*, p. 150.

[22] Friedman prefers to use the broader-based M2, which includes money market funds, as a more consistent measure of monetary policy. He argues that since the introduction of money market funds in the late 1970s, M1 has become a misleading and narrow indicator of the money supply. M2 does not show the increasing volatility of monetary policy, although it does confirm the inflationary bias of the Fed. Interestingly, Friedman used M1 figures without reservation in his 1984 book, *Tyranny of the Status Quo* (San Diego: Harcourt Brace Jovanovich), to demonstrate the Fed's inflationary bias. I think his criticism of

M1 as a narrow definition of money is valid, but M1 still reflects the direction of Federal Reserve policy, and it therefore cannot be ignored.

[23] Friedman, *A Program for Monetary Stability*, p. 23.

[24] Hayek, *Prices and Production*, pp. 148–49.

[25] Hans F. Sennholz, *Age of Inflation* (Belmont, Mass.: Western Islands, 1979), p. 142. Chapter V, "The American Economy Is Not Depression-proof," is a critique of Freidman's 1954 lecture.

[26] Friedman, "Why the American Economy Is Depression-proof," p. 81.

[27] James B. Stewart and Daniel Hertzberg, "Terrible Tuesday: How the Stock Market Almost Disintegrated a Day after the Crash," *Wall Street Journal*, November 20, 1987, p. 23.

[28] "The Crash," *Time*, November 2, 1987.

The Efficient-Markets Hypothesis and Entrepreneurship

E.C. Pasour, Jr.

The entrepreneur is a key figure in the market economy. In a dynamic economy, ideas, products, and services are constantly changing. Entrepreneurship, broadly defined, refers to actions of individuals as they strive to cope with constantly changing market conditions.[1] When viewed in this way, all market participants—consumers, producers, and investors—engage in entrepreneurial activity.

Despite the crucial role of entrepreneurship in the market process, the entrepreneur is often neglected in economic theory.[2] A good example of this neglect is the efficient-markets hypothesis (EMH) of financial investments. This theory holds that the individual investor cannot outwit the market because all available information is already incorporated in stock prices.[3] The efficient-markets approach taken to its logical extreme "means that a blindfolded monkey throwing darts at a newspaper's financial pages could select a portfolio that would do just as well as one carefully selected by the expert."[4] The implication is that a buy-and-hold strategy is as good as any other and that there is no scope for entrepreneurial activity in financial markets.[5]

Insights from the Austrian theory of the competitive market process are used in this article to show that the role of the entrepreneur in investment decisions is similar to that in other spheres of economic activity. Entrepreneurial opportunities exist whenever markets are not perfectly coordinated. Hence, it is argued, there is scope for entrepreneurial activity in financial markets just as there is in other markets. In a world of uncertainty and costly information, the pinpointing of economic inefficiencies is found to be just as difficult in financial markets as it is in all other markets. Since the EMH is a version of the zero-profit theorem of competitive equilibrium in the conventional theory of the firm, it is argued that shortcomings of the EMH are similar to those of other long-run competitive

theories that focus exclusively on equilibrium outcomes while ignoring the entrepreneurial market process that generated those outcomes. The conclusion is that neither the dart-throwing monkey nor any other automaton is a good substitute for the entrepreneur in investment markets where relative prospects for different assets are constantly changing. Before specifically considering the role of entrepreneurship in financial markets, the reason for the neglect of the entrepreneur in conventional economic analysis is briefly analyzed.

The Neglected Entrepreneur

The entrepreneur seldom appears in contemporary economic theory. A check of the index of economic theory texts will show that most make few or no references to entrepreneurship.[6] Why is the theoretical firm "entrepreneurless"?[7]

Neglect of the entrepreneurial role in formal economic analysis quite likely results from the preoccupation of economic theory with final equilibrium positions.[8] If markets are in equilibrium, economic activity is perfectly coordinated and there is no scope for profit-seeking activity. In this situation, a blindfolded monkey *can* handle the entrepreneurial function, for it has no duties. When the decisions of all market participants perfectly mesh, there are no profit opportunities. However, it is difficult to even conceive of a world in which everyone's plans are perfectly compatible and no changes are ever expected. In reality, information about the uncertain future is always imperfect and market participants constantly act to improve their lot. Thus, disequilibria are pervasive in a dynamic economy and entrepreneurship can be visualized as the ability to deal with these economic maladjustments.[9] I would not expect the plans of all market participants to be mutually compatible; but if they were, the economic world and all its transactions and contractual relationships would differ radically from those of our familiar economy.

Spotting opportunities for gain, initiating actions, and reaping the consequences of actions taken are all functions of the entrepreneur. In the competitive entrepreneurial market process, the pattern of decisions at any moment is different from the patterns of earlier periods as market participants become aware of new opportunities.[10] Consumers, producers, and investors generate a flow of information as they test their plans by engaging in market activity. Indeed, the market process itself

consists of the systematic plan changes generated by the flow of information created by market participation.

Neglect of the entrepreneur in economic theory is also related to the way in which the equilibrium approach abstracts from knowledge problems. The conventional approach in economic analysis assumes that information and transactions costs "are such as to provide the conditions that are required for an economic equilibrium."[11] In this approach, emphasis is on the problem of converting resources into outputs, assuming that information on means and ends is *given*.[12] If information is given, success hinges on the decisionmaker's proficiency in mathematical calculation, and there is no scope for entrepreneurship. That is, if there are a given number of economic alternatives with known costs and outcomes, the economic decision is reduced to calculation. In reality, of course, means and ends are not given, and the entrepreneur must attempt to discover market opportunities and cope with constantly changing economic conditions. Thus, making the right decision calls for much more than correct mathematical calculation. It requires a shrewd or lucky assessment of present and future conditions.[13] The constant entry (and exit) of firms providing goods and services that run the gamut from fast-food to electronics is a manifestation of individual attempts to profit from constantly changing market conditions—these ventures are entrepreneurial testings of the waters.

The entrepreneur's profit and loss calculations are based on subjective estimates of future market conditions. These calculations are not the same as profits and losses for tax purposes and are not open to examination on the part of an outside observer. This point will be returned to later when it is shown why average returns to entrepreneurship may have little effect on incentives of the individual entrepreneur to engage in market activity.

Entrepreneurial Opportunities and Efficient Markets

An efficient market has been defined as one in which prices always fully reflect all available, relevant information and in which adjustment to new information is virtually instantaneous.[14] The efficient-markets theory is the formal statement of market efficiency in securities markets. The strong EMH implies that markets are always in equilibrium—in which case profit-

seeking activity will be unrewarded and even penalized by positive transactions costs. The implications of the EMH are demonstrated by a well-known academic story about a finance professor and two of his students.

> The finance professor . . . was convinced that markets were always perfectly efficient. When he and the students spotted a $10 bill lying on the street, he told them to ignore it. If it was really a $10 bill, he reasoned out loud, someone would have already picked it up.[15]

Since uncertainty permeates markets, however, there is scope for entrepreneurship. Indeed, Israel Kirzner maintains that the essence of entrepreneurship is the alertness of market participants to profit from opportunities that others pass by.[16] Entrepreneurship in this sense is an equilibrating force that involves the grasping of opportunities that have somehow escaped notice. For example, perceived differences in intertemporal or interspatial demands offer the possibility of pure arbitrage profits. These profits might be viewed as a "sure thing"—similar to a $10 bill lying in the street. In reality, however, the arbitrageur is subject to uncertainty, and when transactions are not instantaneous, expected conditions may not materialize, resulting in losses.[17]

Even seemingly instantaneous transactions sometimes are not sure bets—entrepreneurs may face unexpected freezing of assets, bankruptcy filings, deaths, wars, and frauds such as bad checks and empty oil tanks. Moreover, no contract is so complete that it provides smooth settlement under all unanticipated conditions. The conclusion is that though entrepreneurial profit opportunities exist, they are uncertain. Consequently, there is a role for alert entrepreneurs in financial markets just as there is in all other markets. The scope for entrepreneurship in financial markets manifests itself in many different forms—from actions by individual investors to those of financial analysts. Financial markets are constantly changing and never perfectly coordinated. If individual plans are to be fully compatible, actions must be based on the same set of expectations.[18] Yet, actions of market participants suggest that their expectations about future supply and demand conditions vary widely. Indeed, every investment transaction that takes place is between two parties with opposite expectations. These differences in expectations are an important part of the incomplete coordination in financial markets that

provides scope for entrepreneurship. The conclusion is that time and uncertainty pose problems and create opportunities for the entrepreneur in financial markets as in other markets.[19]

In the EMH view, profit opportunities in financial markets are considered to be "anomalies."[20] If all available information is already incorporated in stock prices, any remaining profit opportunity is viewed as a paradox. However, profit opportunities should be viewed, not as anomalies, but rather as expected outcomes of a competitive entrepreneurial market process. In the competitive market process, it is to be expected that some decisionmakers will lose and some will gain. Indeed, the market is a profit *and* loss system. Entrepreneurship represents an attempt to create or discover and thereby take advantage of profit opportunities not yet noticed by others. Since entrepreneurial profits in the market process occur only where there are maladjustments, it is misleading to speak of a "normal" rate of profit.[21] Profit and loss are phenomena representing deviations from "normalcy" and have no place in equilibrium. Moreover, there is an inherent tendency in the competitive process for profits to disappear. Profits are a permanent phenomenon only because new maladjustments appear daily.

The role of market prices in coordinating and transmitting information is well known, if often not fully appreciated. However, the competitive market process is useful not only in mobilizing existing knowledge but also in generating an awareness of opportunities whose very existence is unknown.[22] Again, it is to be expected that all entrepreneurs will not be equally adept either in coping with uncertainty or in discovering profitable opportunities.

The focus on the relationship between entrepreneurship and economic maladjustments highlights the idea that much knowledge affecting the individual decisionmaker is not explicit. As Hayek emphasizes, a great deal of information influencing market decisions is unique to individuals—especially knowledge of the particular circumstances of time and place, and "it is with respect to this that practically every individual has some advantage over all others."[23] And even explicit news requires daily interpretation by agents as it affects their abilities to cope with constantly changing economic conditions.

There is no way to know in advance which entrepreneurial ventures will be successful. The entrepreneurs who develop and invest early in budding growth companies are likely to receive high profits. The risk is high, but so are the prospective returns *if*

the venture is successful. Investors in successful new ventures will be amply rewarded. The expectation of profits associated with the production and distribution of new products and services is the inducement that lures capital onto untried trails. The profiting from the creation of value where none existed before is the very essence of the entrepreneurial market process. Indeed, profits are determined primarily by the extent to which the entrepreneur has correctly anticipated future uncertain market conditions.

The preceding discussion, however, does not suggest that there is a formula to "beat the market." The financial investor faces a problem similar to that of other entrepreneurs in coping with problems created by time and uncertainty. In entrepreneurial choice, there is no meaningful way to describe future market outcomes objectively. When future values of economic magnitudes are treated as random variables describable by a subjectively assigned probability distribution, there is an implicit assumption that we know the future—at least the form of the probability distribution that describes it. In this approach to entrepreneurial activity, our ignorance of the future is effectively replaced by an assumption of knowledge.[24]

The Elusive Nature of Economic Efficiency

Many attempts have been made to identify market inefficiencies, where an efficient market is defined as one in which prices fully reflect all known information. However, efficiency is an elusive concept in financial markets as it is elsewhere.[25] Market participants rationally cannot be expected to base their decisions on all available information. As Stigler states: "Information costs are the costs of transportation from ignorance to omniscience and seldom can a trader afford to take the entire trip."[26] A problem arises in identifying inefficient markets under real-world conditions because of uncertainty, imperfect knowledge, and costly information. A meaningful efficiency test has not been devised even under static neoclassical conditions where a defensible criterion of efficiency must be based on an "appropriate amount" of information.[27] The amount of knowledge acquired by market participants hinges on the perceived costs and benefits. Thus, the failure of market participants to become better informed in markets where they are evaluating *perceived opportunities* might merely mean that the expected costs exceed the benefits.[28] The discovery that all

known information is not fully reflected in prices requires resources, including mental efforts and attention, so it does not necessarily mean that markets are inefficient. The conclusion that a financial market is inefficient implies that an attainable alternative can better cope with real-world uncertainty. As critics of the "nirvana approach" have persuasively argued, however, all institutional arrangements are imperfect when measured against an idealized norm.[29]

The problem of specifying the "optimal" amount of market information is even more complicated under dynamic economic conditions of the real world where a crucially important role of the entrepreneur is to make consumers aware of available but unperceived opportunities. In this case, information about an economic good cannot be considered as a complementary ingredient that might, in principle, be purchased separately from the good.[30] It makes no sense to talk about consumers' demand for information on an investment alternative about which they know nothing. Much information about financial investments, for example, is concerned with making the consumer either aware of unknown investment opportunities or of unperceived aspects of already known investment alternatives. Thus, the problem of identifying information inefficiencies under dynamic conditions wherever increasing knowledge has to be called to people's attention is even more intractable than in the static neoclassical approach.

There is a subtle distinction between market inefficiency and the existence of profit opportunities.[31] The fact that an outside observer cannot identify market inefficiency under real-world conditions of uncertainty and costly information does not imply a lack of entrepreneurial opportunities. At any given time, as previously stressed, profit opportunities in a dynamic economy are likely to exist because individual plans are not perfectly coordinated. This conclusion is consistent with the evidence in financial markets: "The sum total of all the evidence that has been accumulated to date suggests that discrepancies do, in fact, exist from time to time and from security to security. There is no theoretical reason why an investor cannot do a superior job of analysis and profit thereby."[32]

Entrepreneurship—Financial versus Other Assets

Assets of all sorts (including farms, forests, houses, shares of companies, fixed-interest securities, and even property such as

precious metals, jewels, and antiques) compete with each other as investments. There is a continual endeavor by owners to sell those assets whose prospects the market values more highly than the owner does and to buy those in which the market valuation is less than the owners'.[33]

Asset markets are "inherently restless," as the relative prospects for various types of assets are constantly changing in a dynamic economy.[34] Historically, it was widely believed that common stocks scored relatively favorable long-run returns and were an effective hedge against inflation. In the 1970s, however, common stocks underperformed long-term bonds, while gold, stamps, other nontraditional investments, and farmland produced above-average returns.[35] The situation changed dramatically during the first half of the 1980s, with stocks performing much better than gold and farmland.

Even within the stock market, industries perform quite differently from one another. Over the 1943–73 period, the S&P Industrial Index increased twelve-fold, but this average consisted of widely varying industry performances. Office and business equipment stock increased 145 times and stock of the electronics industry by almost 69 times. At the other extreme, stock prices in the lead and zinc industry were less than two times beginning levels, whereas those of sugar and textile apparel industries were barely three times higher.[36] Even in shorter periods, industries perform quite differently from each other. Consequently, whether one is considering different types of assets or stock prices in different industries, outcomes are likely to vary widely and past results are not always good predictors of future performance. It is the nature of speculative assets that their relative prices will be continually changing—and in unpredictable ways.

In the market process, asset owners are constantly shifting their portfolios in response to changing economic conditions. Financial markets are similar to other asset markets in that entrepreneurial profits and losses are essential phenomena. There cannot be financial markets without them. Mises stresses that profit opportunities exist even in a "retrogressing economy" where the total sum of entrepreneurial losses is higher than that of profits.[37] It might be asked why anyone would embark on an entrepreneurial venture if it is known in advance that the mathematical chances of earning profits are smaller than those of suffering losses. However, this is an incorrect mode of posing the problem.[38] When individual investment decisions are

considered in the context of Knightian uncertainty, where the set of outcomes is not and cannot be determinate, the very notion of expected-value maximization is ambiguous and misleading.[39] Moreover, entrepreneurs do not act as members of a class but as individuals. Individual entrepreneurs are not concerned about the average outcome but rather about their own outcomes. “Each entrepreneur confronts a unique situation, and he thinks he can see opportunities, can create opportunities, to make profits. He acts quite simply because he thinks he can win.”[40]

How can one test the efficacy of entrepreneurship? A public measure of the effectiveness of an action after the event when the outcome of an action is known is useless as a guide to entrepreneurial choice.[41] The action chosen is based not on circumstances of publicly agreed character but rather on the individual’s own private assessment. When the subjective nature of entrepreneurial choice is considered, it is not surprising that entrepreneurs continue to search for profit opportunities whether entrepreneurial profits, on average, are positive or negative.

The main object of economic theory is to make the world around us intelligible in terms of human action. The entrepreneurial market-process view of economic activity is consistent with what we observe in asset markets of all types. This approach recognizes the importance and implications of uncertainty for entrepreneurial choice—regardless of whether the choices relate to production, consumption, or investments. An enterprise, an investment, a bet, or gamble has the effect of making some good thing possible—but always at a cost.[42] There is no sure way to achieve full success or to avoid disappointment in the real world where market data are shrouded in uncertainty.[43] Although there is no way to avoid the problems posed by time and uncertainty in real-world asset markets, any type of entrepreneurial venture is likely to be more successful if the decisionmaker prepares by studying the evidence.

When considered from the viewpoint of the entrepreneurial market process, investment activity in financial markets fundamentally is no different from investments in other asset markets. Random asset purchases on the part of investors in financial assets is unlikely to be a viable strategy by profit-seeking entrepreneurs. Moreover, no one can take totally predictable actions or opt out of entrepreneurship unless markets are perfectly coordinated. Since this can never happen, any model of investment activity that leaves no room for the creative

elements of entrepreneurship creates confusion rather than enlightenment in attempts to understand market activity.[44] If the model omits the entrepreneur, the driving force of the market system is eliminated.

Implications—Buy and Hold versus Entrepreneurship

The EMH suggests that the individual investor cannot consistently outperform a buy-and-hold strategy. Granting that this is the case does not imply that entrepreneurial activity has no value. In the course of searching for ways to profit from "restless asset markets," investors eliminate profit opportunities for others. In the absence of such entrepreneurial activity in securities markets, there would be no action taken to reduce ignorance, exploit profit opportunities, and improve market coordination. The blindfolded monkey throwing darts at a newspaper's financial pages is not an equilibrating force in financial markets. Indeed, a considerable amount of knowledge is assumed on the part of the monkey in suggesting that entrepreneurial alternatives have been narrowed to financial-page investment choices. The astute entrepreneur, as suggested previously, must consider a broad range of investments—of which financial investments are only one type.

Regardless of whether it can be demonstrated that the individual entrepreneur can improve on a buy-and-hold strategy, entrepreneurship is a key ingredient in financial and all other asset markets. It is the actions of profit-seeking entrepreneurs that coordinate market activity and enable investors following a "buy-and-hold" strategy to compare favorably, on average, with those more actively engaged in market activity. The value of the trading activity that provides the benefits in highly organized financial markets is heavily discounted in the EMH. In other areas of economic activity, those individuals who accept the benefits without paying their share of the cost of providing public goods are said to pose a "free-rider problem." From the standpoint of public policy, the implication of the EMH that people generally should follow a buy-and-hold strategy—and be "free riders"—is ironic.

The preceding analysis appears to be consistent with Lachmann's analysis of capital-asset valuation and portfolio management.[45] Lachmann analyzes the asset structure of a productive enterprise as a complex network of relationships that

transmits knowledge and the incentive for action from one group to another. Since the entrepreneurial decision is concerned with the making and revising of plans, a change in the composition of an investment portfolio involves the same kind of action as a change in production plan.[46] That is, the capital owner must regroup assets in response to constantly changing market conditions. Stock exchanges, by facilitating the exchange of knowledge, tend to make the expectations of large numbers of people more consistent. In this way, security markets promote consistent changes in capital investment and economic progress, since in the long run a market economy "substitutes entrepreneurs who can read the signs of the times for those who cannot."[47] The notion of the portfolio owner as a passive income recipient clearly is incompatible with the Lachmann view of market activity.

The competitive entrepreneurial process is fundamentally the same in all types of markets. The EMH is but another form of the zero-profit theorem in economics that holds that economic profit for any firm in a competitive industry is zero in the long run. In the study of financial and other markets, the preceding analysis suggests that more attention should be given to the market process generating the outcomes and less to the outcomes themselves, because they assume away informational differences and profit opportunities.[48]

In the entrepreneurial process, the search for profit opportunities eliminates or greatly reduces the prospects of success over the long run.[49] In EMH terminology, it is the search by investors for market imperfections in the belief that the market is not efficient that ultimately makes the market efficient. Potential short-run profits provide the motivation for entrepreneurial activity even though the likelihood of consistently superior entrepreneurial success is quite small.

Conclusions

An equilibrium view of economic activity is implicit in efficient-markets theory (and conventional economic theory generally). In a world in which individual plans are perfectly coordinated, all profit opportunities have been exploited and there is no scope for entrepreneurship.

The competitive entrepreneurial market-process view of economic activity is quite different. When time and uncertainty are taken seriously, one does not expect individual plans to be

perfectly coordinated in markets for financial or other types of assets. Thus, coordination of market activity is never complete because change is always occurring. Consequently, there are likely to be entrepreneurial opportunities in asset markets of all types. Indeed, in this view, disequilibria are pervasive as entrepreneurship is exercised by consumers, producers, and investors in coping with constantly changing economic conditions. Entrepreneurship is closely linked with profits (and losses) in the competitive entrepreneurial process that is driven by the search for profits.

This article does not imply that the EMH, other zero-profit theorems, or other competitive equilibrium models are useless tools in economic analysis. It does suggest that much more attention should be given to the entrepreneurial market process that creates pressures to reduce or eliminate economic profits. It is the entrepreneurial search for profits that gives meaning to the zero-profit idea of equilibrium as an end product of the market process.

All entrepreneurial activity is shrouded in uncertainty, and there is no assurance that entrepreneurial activity by anyone will be successful. The EMH, at least to some extent, discounts the importance of entrepreneurship by suggesting that an automaton can substitute for entrepreneurial activity. The individual investor may or may not be able to beat the market averages. However, it is not market averages, but the entrepreneur's subjective assessment of profit opportunities that motivates entrepreneurial activity in securities markets as in other investments.

Competition means that entrepreneurs are unlikely to earn consistently superior returns. Although constantly changing market conditions suggest that there are likely to be profit opportunities, the constant striving for profit greatly reduces the chances of individual success. Clearly, entrepreneurial profit-seeking activity is a game worth winning, although in retrospect it frequently is a game not worth playing.[50] Regardless of an individual's success in the short or the long run, however, the profit-seeking entrepreneur is the key figure in financial as well as in other asset markets.

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[1] Ludwig von Mises, *Human Action*, 3rd ed. (Chicago: Henry Regnery, 1966), p. 254.

[2] Israel M. Kirzner, *Competition and Entrepreneurship* (Chicago: University of Chicago Press, 1973).

[3] "When someone refers to efficient capital markets, they mean that *security prices fully reflect all available information*." Edwin J. Elton and Martin J. Gruber, *Modern Portfolio Theory and Investment Analysis*, 3rd ed. (New York: John Wiley & Sons, 1987), p. 361.

[4] Burton G. Malkiel, *A Random Walk Down Wall Street*, 4th ed. (New York: W.W. Norton, 1985), p. 16.

[5] There are different versions of the EMH depending upon the assumption made about the amounts and kinds of data reflected in stock prices. The discussion of this article, in a narrow sense, applies only to the "strong" form of the EMH, which asserts that stock prices fully reflect *all* information, public and nonpublic. In a broad sense, however, the discussion applies to all efficient market theories that concentrate on the results of the competitive market process, deemphasizing the actions of the market participants responsible for those results. For more discussion of the different versions of the EMH, see Charles P. Jones, *Investments: Analysis and Management* (New York: John Wiley & Sons, 1985), p. 422.

[6] "The references are scanty and more often they are totally absent. The theoretical firm is entrepreneurless—the Prince of Denmark has been expunged from the discussion of *Hamlet*." William J. Baumol, "Entrepreneurship in Economic Theory," *American Economic Review*, vol. 58, May 1968, p. 66.

[7] Mark Blaug describes the role of entrepreneurship in economics during the past two centuries, including the disappearance of the entrepreneur from the center of the stage in economic analysis. After analyzing the role of entrepreneurship in the works of Adam Smith, Richard Cantillon, Frank Knight, J.A. Schumpeter, and others, Blaug concludes: "It is a scandal that nowadays students of economics can spend years in the study of the subject before hearing the term *entrepreneur*." Mark Blaug, *Economic History and the History of Economics* (New York: New York University Press, 1986), p. 229.

There has been a great deal of work on entrepreneurship in recent years by a number of economists, many (most?) of whom are associated with the Austrian school. However, this work has had little influence on current economic textbooks where entrepreneurship is "hardly mentioned, or mentioned only in

passing." Ibid., p. 219.

[8] Israel M. Kirzner, *Perception, Opportunity, and Profit* (Chicago: University of Chicago Press, 1979), p. 5.

[9] T.W. Schultz, "Investment in Entrepreneurial Ability," *Scandinavian Journal of Economics*, vol. 82, no. 4, 1980, pp. 437–48.

[10] Israel M. Kirzner, Competition and Entrepreneurship, p. 15.

[11] T.W. Schultz, "The Value of the Ability to Deal with Disequilibria," *Journal of Economic Literature*, vol. 13, September 1975, p. 829.

[12] F.A. Hayek, "The Use of Knowledge in Society." *Individualism and Economic Order* (Chicago: University of Chicago Press, 1948).

[13] Israel M. Kirzner, *Discovery and the Capitalist Process* (Chicago: University of Chicago Press, 1985), p. 17.

Moreover, the greater the uncertainties of the world, the greater is the possibility that profits would go to "venturesome and lucky rather than to logical, careful, fact-gathering individuals." A.A. Alchian, "Uncertainty, Evolution and Economic Theory," *Journal of Political Economy*, vol. 58, no. 3, June 1950, pp. 211–21. Reprinted in A.A. Alchian, *Economic Forces at Work* (Indianapolis: Liberty Press, 1977), p. 20.

[14] James H. Lorie, Peter Dodd, and Mary Hamilton Kimpton, *The Stock Market: Theories and Evidence*, 2nd ed. (Homewood, Ill.: Dow Jones-Irwin, 1985), p. 177.

[15] Burton G. Malkiel, *A Random Walk Down Wall Street*, p. 348.

[16] Israel M. Kirzner, *Perception, Opportunity, and Profit*, p. 8.

[17] Murray Rothbard, "Professor Hébert on Entrepreneurship," *Journal of Libertarian Studies*, vol. 7, fall 1985, p. 282.

[18] Gerald P. O'Driscoll, Jr., and M.J. Rizzo, *The Economics of Time and Ignorance* (New York: Basil Blackwell, 1985), p. 80.

[19] Ibid. pp. 57–58.

[20] Burton G. Malkiel, *A Random Walk Down Wall Street*, p. 349. However, the EMH can also accommodate outcomes with some investors outperforming the market. Given a large number of investments, some can be expected to earn greater than average rates of return by chance alone. Although the long-run performance record for these investments is likely to fall back in line with average rates of return for investments of similar risk,

the long run may be quite long. One statistician estimated that it would take about seventy years of data to demonstrate conclusively that an annual rate of return 2 percent above the market rate was the result of superior investment skill rather than luck. Gerald W. Perritt, "Consistent Winners: Is It Skill—or Luck" *AAIA Journal*, vol. 9, no. 9, October 1987, p. 27.

Alchian also stresses that individual behavior based on entrepreneurial motivation does not necessarily imply a collective pattern of behavior that is different from a random selection of actions. Under uncertainty, people's judgments will differ, even when based on the best available evidence. And even though no decisionmakers may be making their individual choices by tossing coins, the aggregate set of actions of the entire group may not be distinguishable from a set of individual actions, each selected at random. A.A. Alchian, *Economic Forces at Work*, pp. 24–25. Thus, the existence of seemingly superior investors is likely to be consistent with the EMH.

[21] Ludwig von Mises, *Human Action*, p. 297. The "normal" rate of profit should be distinguished from the long-run equilibrium rate of interest. The rate of interest is positive because people have a positive rate of time preference and interest rates would be positive even in market equilibrium. Entrepreneurial profit, in contrast, is the residual when factors are paid on the basis of opportunity cost and is positive or negative because of uncertainty.

[22] Friedrich A. Hayek, "Competition as a Discovery Process," chapter 12 in *New Studies in Philosophy, Politics, Economics and the History of Ideas* (Chicago: University of Chicago Press, 1978).

[23] F.A. Hayek, "The Use of Knowledge in Society," in *Individualism and Economic Order* (Chicago: University of Chicago Press, 1948), p. 80.

[24] Douglas Vickers, "The Uncertainty about Uncertainty: A Paradigmatic Comment on Professor Weiss' Theory of the Firm," *Eastern Economic Journal*, vol. 10, March 1984, pp. 71–77.

[25] E.C. Pasour, Jr., "Economic Efficiency: Touchstone or Mirage," *The Intercollegiate Review*, vol. 17, fall/winter 1981, pp. 33–44.

[26] George J. Stigler, "Imperfections in the Capital Market," *Journal of Political Economy*, vol. 75, June 1967, p. 291.

[27] Harold Demsetz, "Information and Efficiency: Another Viewpoint," *Journal of Law and Economics*, vol. 12, April 1969, pp. 1–22.

[28] Israel M. Kirzner, *Competition and Entrepreneurship*, pp. 155–59.

[29] Harold Demsetz, "Information and Efficiency . . . ," pp. 1–22.

[30] Israel M. Kirzner, *Competition and Entrepreneurship*, pp. 155–59.

[31] E.C. Pasour, Jr., "Economic Efficiency and Inefficient Economics: Another View," *Journal of Post Keynesian Economics*, vol. IV, spring 1982, pp. 454–59.

[32] Charles P. Jones, *Investments: Analysis and Management*, p. 434.

[33] George L.S. Shackle, *Epistemics and Economics* (Cambridge, England: Cambridge University Press, 1972), p. 195.

[34] Ibid.

[35] Burton G. Malkiel, *A Random Walk Down Wall Street*, pp. 298–99.

[36] Charles P. Jones, *Investments: Analysis and Management*, pp. 334–35.

[37] Ludwig von Mises, *Human Action*, p. 298.

[38] Ibid., p. 299.

[39] James M. Buchanan and A. Di Pierro, "Cognition, Choice, and Entrepreneurship," *Southern Economic Journal*, vol. 46, January 1980, p. 700.

[40] Ibid.

[41] George L.S. Shackle, *Epistemics and Economics*, p. 123.

[42] George L.S. Shackle, "The Human Predicament," *Annals of the American Academy of Political and Social Science*, vol. 412, March 1974, p. 10.

[43] Even as shrewd an economic analyst as Baumol attempts to distinguish between speculation and investing (William J. Baumol, "Entrepreneurship in Economic Theory," p. 18). All entrepreneurial activity, however, involves speculation (Ludwig von Mises, *Human Action*).

[44] James M. Buchanan and A. Di Pierro, "Cognition, Choice, and Entrepreneurship," p. 701.

[45] Ludwig M. Lachmann, *Capital and Its Structure* (Kansas City, Kans.: Sheed Andrews and McMeel, 1978).

[46] Ibid., p. 98.

[47] Ibid., p. 71.

[48] The rational expectations hypothesis (RAT) of macroeconomics is another widely discussed example of the zero-profit theorem. Such models "typically begin with the assumptions that all profit opportunities have been exploited and

all necessary information has already been acquired." In RAT, too, the market process has come to an end and there is no scope for entrepreneurial activity. Gerald P. O'Driscoll, Jr., and Mario J. Rizzo, *The Economics of Time and Ignorance* (New York: Basil Blackwell, 1985), p. 215.

[49] James H. Lorie, Peter Dodd, and Mary Hamilton Kimpton, *The Stock Market: Theories and Evidence*, pp. 80–81.

[50] Ibid., p. 81.

Trade Unions: The Private Use of Coercive Power

W.H. Hutt†

In this article, I shall consider the nature and consequences of labor-union activities. There are various useful services that unions perform, but my interest will be solely with the social effects of *privately exercised coercive power* as a means to secure some of their main objectives (e.g., an increase in the remuneration of a particular group of workers).

Forms of Coercive Activities

This power is, in a broad sense, exercised in a twofold manner. First, is via physical violence and sabotage. We find personal intimidation of and assault on competitors, nonstrikers, strikebreakers, and managements; sabotage is inflicted even on nonunion competing firms. That unions can do so with impunity is due to their de facto exemption from society's normal sanctions against the private use of physical violence and sabotage.[1] Second, and even more important, unions employ a form of coercion that is less commonly regarded as illegitimate, namely, "peaceful coercion" via threats to disrupt the community's process of economic cooperation through a strike or a strike-threat.

Strike-threat power is the source of the authority unions have won in order to discipline their own willing or unwilling members. It has been used to impair the normal production and exchange rights of nonunion workers, and of course it has been used in attempts to exploit investors.[2] At times it has even been used detrimentally and ruthlessly against third parties—nonparties to union disputes—who have, in many countries, been denied the right to sue for damages. That is, union power is used not solely against those whose assets or labor are excluded from particular production operations, but against consumers and producers in the community as a whole. Third parties are adversely affected even in the absence of union actions explicitly aimed at them. The disruption of one set of activities throws into

disorder the work and lives of others—sometimes a huge number of others.[3]

Due to the fact that the strike is a form of warfare that, when resorted to, requires a strategy and maintenance of morale, it becomes essential during nonstriking, peaceful times to keep alive the war spirit: mistrust and hostility toward the enemy —"the employer."

The threat to strike—"the gun under the table" as Mises called it—like all forms of warfare, can be used for good or noble purposes. Nevertheless, even when the objective is defensible, we are forced to regard all private use of coercive power (whether by boycott or strike) as an intolerable infringement of human freedom. We should condemn the Mafia even if it could be shown that the revenues of racketeering were being used to subsidize opera, cancer research, or civil-rights movements.[4] Similarly, the strike is a form of private warfare. Victory is, as in all warfare, to the strong, not necessarily to the righteous. Yet during the present century, apologists for the unions have adopted "might is right!" as a moral principle.

A Fundamental Market Principle

A principle derived from the classical general theory of value that, I suggest, should be treated by all economists as a fundamental law is as follows: in any society, the flow of goods and services demanded by consumers and investors is *optimal* in magnitude and composition when each entrepreneur pays the owners of resources needed (for use in the production of individual outputs) *the minimum* required to entice their services from other applications or to retain them in the production of any particular output the entrepreneur is directing. Under this law, no resource would be employed in a use that consumers value less highly than an alternative use to which the resource could be put. This "law" is, I suggest, universal and subject to no exceptions! The institutions needed to insure that the pricing mechanism shall actually be operated in accordance with this principle are those that define and enforce transferable private property rights. Whether further institutions are needed to assist the process is still a matter of controversy. The antitrust laws of the United States were (under the kindest treatment of the arguments used for their enactment) intended to provide optimal assistance to the process that allocates the utilization of the aggregate stock of assets and the aggregate flow of labor services

in conformity with "consumers' sovereignty."

In the sphere of labor, this economic law indicates that *the flow of real wages will be maximized*, and any degree of unproductive inequality of earning power will be *minimized*, when every worker desiring employment in any occupation is offered and accepts *the minimum* essential to secure his employment (i.e., to attract him from leisure or from alternative occupations and then retain his services).

Notwithstanding the compelling logic of this law, the impression certainly survives that, in a free market (i.e., in a strike-free world), workers' remuneration would be forced down to pitiable levels. But we have never been treated to any rigorous support for that claim. There has certainly been a vast flood of contributions dealing with the issue of a "just" determination of the price of labor. But no consideration has been given to the really vital issue, namely, the crucial relationship of every individual labor cost in every particular project to the aggregate real income of society at large.

Investor Self-Defense

When investors recognize their potential vulnerability to strike or strike-threat coercion, they will make full allowance for whatever they judge to be the probability that union power will be used in an attempt to seize part of their capital. In assessing the value they can risk in assets to be devoted to any activity, investors will, to some extent, rely on the unions' reluctance to kill the goose that lays the golden egg or to unduly harm the goose's fertility! They will also consider the probabilities that (1) although in a society that tolerates strike-threat coercion, technological progress will be discouraged, it will not come to an end; labor-economizing and capital-saving achievements in noncompeting fields will still be raising the source of demands for most prospective outputs; (2) in spite of the depressive effects of the use of union power, aggregate income will continue to increase through continued thrift (provision for the future that normally takes the form of the net accumulation of assets); and (3) governments will find it expedient to inflate (reduce the value of the money unit), which, *when this action is unanticipated*, will have a positive production and employment effect in the short run (however disastrous it may be in the long run).

Investors today expect managements to be expert in (as far as possible) avoiding capitulations to strike-threat pressures, but

they know they cannot rely on the managers being wholly successful. They simply know that the avoidance of capitulations to union power brings gains, while capitulations to particularly heavy wage demands will produce losses. In every decision to retain, replace, or provide (accumulated) assets in any productive activity, investors must (if, as entrepreneurs, they are forecasting rationally) regard union property seizures as prospective costs that reduce profitable investment in that activity. From society's angle, then, the consequences of union power so used will be that the composition of the community's assets stock will be adversely affected. In general, the most productive and wage-multiplying types of assets are the least versatile and therefore the most exploitable. Investors will, when possible, avoid such investments until, and if, through wise policy, exploitation by unions becomes less profitable.[5] Until that happens, the damage to the material well-being of labor as a whole is inevitable but incalculable.

Labor's Inferior Bargaining Power

I must now give some attention to the suggestion that unions wield "countervailing power." It is said that unorganized workers have "inferior bargaining power" in the determination of wage rates unless they can resort to the strike-threat. This influential fallacy was put very lucidly by the famous English judge, Lord Francis Jeffrey, in 1825, very shortly after the repeal of the British Combinations Law.[6] He said:

> A single master was at liberty any time to turn off the whole of his workmen at once—100 or 1000 in number—if they would not accept the wages he chose to offer. But it was made an offense for the whole of the workmen to leave the master at once if he refused to give the wages they chose to require.[7]

This sounds, of course, like an intolerable injustice, and so it appeared to the illustrious judge. But that word *master*, like the world *employer* today, really refers to the residual claimant on the value of what is being produced.

In the absence of monopoly or monopsony abuse, and provided there is no government or private restraint on the loss-avoidance, profit-seeking incentives, it will be to the investors' advantage that managers shall attract or retain all workers the

value of whose inputs permits a marginal prospective yield above, or not less than, their predicted marginal-output values. But, if there is no monopolistic or monopsonistic abuse, a corporation will have no power to influence the wage rates that will be to its advantage to offer. Of course, the management's purely interpretive discretion in judging what wage rates to offer may well be wrong, in either direction.

If monopolistic or monopsonistic power exists, it is very easy to raise the value of inputs and/or outputs by excluding competing resources—labor or capital—from an occupation, industry, or area. But it is very difficult indeed to exploit complementary or noncompeting factors, such as capital by labor, or labor by capital.

We have already seen how the flow of capital into nonversatile or otherwise exploitable assets can be reduced when investors are served by vigilant managements and attempts are made to exploit them. For similar reasons, labor is unexploitable, unless managements can somehow suppress competing demands for the workers they acquire. The circumstances required for monopsonistic action to reduce wage rates are those that cause labor to be shut into a firm, occupation, industry, or area. This has occurred and may again occur. The most obvious example concerns what is known as the "lock-in contract," under which an employee who leaves a corporation is subject to some penalty, such as loss of pension rights. But if abuses of this kind are indeed important, they are easily remedied. Lock-in contracts can be declared void and illegal except when they are a protection for investments in human capital (resembling patents to protect investments in research) or unless the contract is a means of repayment of beneficial loans to the employees, such as for moving expenses, and so forth.

Nevertheless, in theory, the monopsonistic exploitation of labor is conceivable. This is not a matter of controversy. The most likely form in which such exploitation of labor might happen (other than through lock-in contracts) is where, by subtle fraud, workers are inveigled into specialized training for an occupation in which they find themselves trapped. I know of no concrete illustration of such a situation. But if it should occur, it would still not justify the private use of force as countervailing power.

Fortunately, there is one simple test for determining whether strike-threat power has countervailed an exploitation that has forced or maintained the price of labor below its free-market

value.[8] The test is whether any workers not presently employed in firms paying the increased wage rates would be prepared to accept work of the same quality and quantity for lower wage rates. But after more than half a century of interest in this subject, I have discovered no case studies in which proof of previous monopsonistic exploitation has been demonstrated in this way.

Unions and Freedom

The most important freedom that is denied through union power is, indeed, that of the right of all individuals to accept any employment that they believe will improve their earnings and prospects. The "closed shop" or the "union shop"—devices that have been inflicted on managements in so many parts of the world—must appear to any detached student not only as flagrantly regressive but as an intolerable negation of individual freedom. Yet even under what are called "right-to-work laws," union power can force managements to deny the right of those persons who wish to raise their contributions to the common pool of income from doing so. Juveniles and the less fortunate adults (especially those who are initially less well qualified or those who belong to what Demsetz has called "nonpreferred groups," (such as blacks, nonwhites, Jews, ugly women, and elderly women) can be prevented by various subterfuges (such as color bars, demarcation obstacles, apprenticeship barriers, occupational licensing, and—most effective of all—enforcement of "the rate for the job"[9])) from improving their earnings and prospects of earnings.

Hence if by "union power" we mean the ability to coerce managements through the threat of organized disruption, the use of that power may enable potential strikers to engross for themselves the effective ability to achieve skills in, or to become "attached" to occupations that would otherwise be open to interlopers. The privileges so gained must be balanced against the detriments suffered by those who are debarred from employment at wage rates that it would have been profitable to offer in a truly free labor market and that prospective recipients believe could raise their earnings and prospects.

Unionists often claim that individuals' freedom is infringed because in any firm in which they work, they have no voice in the making of the rules to which they are subject or in the administration of those rules. Elliott J. Berg attributes to such

well-known “labor economists” as J. Dunlop, Clark Kerr, F. Harbison, and C. Myers the view that workers “live in a state of perennial protest arising from the frustrations implicit in being governed by a web of rules they usually have little to do with making.”[10] There is no legal or other barrier to the workers’ volunteering to bear most of the risks, by accepting the residual share, if they so wish. They will then automatically have the right to make and administer all the rules under which they work, appoint all the managers, hire all the assets, and borrow all the circulating capital required. In that case, their earnings will be wages *plus* profits or *minus* losses, just as the investors’ earnings are interest *plus* profits or *minus* losses. But the workers will then sacrifice the security of earnings and employment continuity for which the simple wage contract provides. It will, of course, also entail an inappropriate division of function so the majority of investors can spread their risks over many ventures, while workers who put their future earnings at risk cannot spread risks in that form. A sharing of risk and management is, however, by no means out of the question.[11] But what is really important is that the rules and their administration by the managers would then be unlikely to differ one iota from what they are with investors in the conventional sense accepting the residue.

The Employer

Unfortunately, the word *employer* suggests subordination to the “owners.” But the suppliers of the assets and circulating capital are just as subordinate as the workers to the power of “consumer sovereignty.” Consumers are the true “employers.” A firm’s assets are employed just as are the workers. The services of both are embodied in output. Investors willingly submit to the ruthlessness of market discipline. Seen from this angle, investors’ acceptance of the residual share from the sale of output provides the most important form of social security for the workers that society offers. Stressing this truth does not of course imply that there is no problem of justice to individuals in the application of social discipline through managerial authority.

Union power is expressed partly through the promise of votes to or the subsidization of legislators at all levels (federal, state, and municipal) and reliance on lobby power generally. Legislation has indeed conferred upon the unions far-reaching immunities before the law. Second, and more seriously, it has,

over the years, provided protection for union members from the competition of the underprivileged. Via minimum wage enactments plus "welfare" handouts, occupational licensing, prolonged unproductive schooling, and so on, private objectives sought through government have displaced social objectives sought through the market.

Union power, whether exercised through government or through the strike-threat, far from redistributing income from the rich to the poor, has had exactly the opposite effect. Yet opinionmakers and the public have been brainwashed into believing that greater distributive justice has been its aim and achievement. Although at times, through private coercion, some part of investors' property has been seized and squandered, backlash reactions upon the subsequent composition of the assets stock have soon exceeded the gains. Any long-run benefits that some unions have won for their members have chiefly been at the expense of their competitors—laid-off or excluded workers—and at the expense of all as consumers and investors in noncompeting fields. The system has had a formidably depressive effect upon aggregate purchasing power (as distinct from aggregate money-spending power)—i.e., it has repressed the wages flow and real income and has therefore caused creeping, crawling, chronic inflation to be politically expedient.

The media consistently provide the clearest evidence of the impoverishing process. But they seldom perceive (or attempt or dare explain) the reason. I can here usefully refer to just one example: the editorial introduction of Elizabeth Beardsley Butler's *Women and the Trades*, edited by Maurine Weiner Greenvald. In terrifying innocence, Ms. Greenvald refers to "thousands of pages of research about labor exploitation" contained in "an arsenal of ammunition for social reforms."[12] Ms. Greenvald continues by explaining that Ms. Butler "was one of the many foot soldiers in the war against industrialization."[13] For me, these passages, written in 1984, express the real problem. Ms. Greenvald takes it for granted that those private entrepreneurs whose perception of the availability of the women whom they connected with consumers, by offering industrial employment, were exploiters of the women they so helped. In fact, they were among the real philanthropists of their age, for they were raising the living standards of the women to whom they offered jobs and prospects on terms that were better than any alternatives that society could then offer.

The truth is that nearly all the activities initiated under

slogans such as “the War on Poverty” have, in fact, been poverty-creating. But will it ever be politically possible to restrain the most blameworthy poverty-creators of all (among the myriad of special interests that command governments), namely the AFL-CIO in the United States, the Trades Union Congress (T.U.C.) in Britain, and similar organizations in other countries? Yet politicians are often motivated to emulate the strike-threat system by enacting minimum-wage rates that make it an offense to employ any person the value of whose product is less than the stipulated minimum. This type of constraint, whether misguided or cynically exploited, has survived after two centuries of extremely clever propaganda. The impression has been left that the low marginal productivity of the poor and hence their low incomes are to be blamed in some way on those who employ them. Everyone is allowed to believe that the poor are the victims of “exploitation” by their employers.

Sweated Labor

Early in the British Industrial Revolution, those who offered employment to the very poor came to be described by the abusive epithet, *sweaters*. The stereotype of the sweater was of a small businessman (often an immigrant and Jewish) carrying on his back a sack of materials cut to a required pattern.[14] The profession of these sweaters was that of a small entrepreneur—typically, a clothing manufacturer. Sweaters would cut the different parts, for instance, needed to make a shirt. They would then call on houses in the poorer districts and seek out suitable housewives not fully employed in household chores, and they showed these women how to sew the different parts together. Later, they again would call to collect the product and pay for the outputs. They had no means of preventing any of these housewives from obtaining better-paying jobs. Yet the opprobrium worked up against this class was enormous. The sweaters were accused not only of underpaying, but of overworking these women, all of whom voluntarily and usually eagerly accepted the contracts offered them. Indeed, these small entrepreneurs were charged with working the seamstresses they provided with jobs to an early death. British humorist Thomas Hood’s famous “Song of the Shirt” offered the refrain: “Stitch, stitch, stitch” followed by the line: “It is not linen you’re wearing out, but human creatures’ lives!”

The term *sweated labor* became common parlance in British

socialist circles, while the famous historians of the trade union movement, Sydney and Beatrice Webb, used their literary skills to keep the notion alive. It is important to remember that these greatly aligned small entrepreneurs were never accused of using tricks to prevent other entrepreneurs from entering their territories. But the antisweating movement, largely financed, in its early years at least, by factory owners who complained about "the unfair competition" of small domestic manufacturers (who were not forced, as they were, to invest in expensive machinery), has continued right down to this day.

It was really a shock to see Dan Rather on a CBS news report resuscitate the myth and dress it up in modern clothing. He staged a woman forced to work at home on piecework for a mere pittance, with total earnings well below the minimum wage rate, in spite of deplorably long hours. Dan Rather's aim was, of course, an attempt to justify legislation that prohibited people from earning any income at all unless they could produce outputs that were salable (to the scoundrels engaged in this kind of business) for sums equal to or exceeding the minimum specified. How the hearts of millions of CBS listeners must have bled for the poor woman portrayed and the thousands of others like her!

But the only "exploiters" of such women are governments or private organizations (such as labor unions) that impose restraints on the free-market price of labor and so destroy entrepreneurial incentives to offer better-remunerated employments to all. Every such restraint is the result of coercion —by government or by the private use of the right to disrupt (e.g., the right to boycott, to strike, or to use intimidation and violence generally for the same purpose).

Unions and Blacks

In the United States, black people have been most sedulously used by professional white and black "liberals" and unionists for their private ends. So-called liberal politicians have persuaded black voters to renounce the protection and assistance of the market and subject themselves to the mercy of the state (e.g., to the rulers of special-interest organizations).

The overwhelming majority of black leaders who attended a recent meeting of the Urban League and NAACP's Joint Summit Conference on the Crisis in the Black Family saw things differently. In a brilliant article in *The American Spectator*,

William Tucker reports how "speaker after speaker recited the indictment that charges White America, once again, with consigning Black America to a permanent internal exile." Blacks, reported Tucker, "remain hypersensitive to every one of life's little frustrations, particularly identifying every adverse event as some new form of 'discrimination.'"[15] Referring to the fact that about half of all black children in the United States today are "illegitimate," Tucker reports that today about three-quarters of them are being reared without the influence of a father.[16] This is a recent and still developing phenomenon. Had the conference been genuinely concerned, however, with the well-being of American blacks, they would have directed their main attention courageously to the frightening prospect this situation is creating. Instead, the blame was usually laid on those hackneyed scapegoats, "joblessness, discrimination, poor education, poor housing, and the failure of the government to give us our share."[17]

Tucker interprets this as evidence that blacks as a whole "still refuse to recognize that it is the incredibly misguided 'charity' of the welfare system that is breaking up their families." He alleges that "the welfare process" is creating "vested interests that are going to be very, very hard to dislodge" if an attempt to reverse the trend is to be made in the future.[18]

Tucker most effectively quotes George Gilder's "almost totally ignored book, *Visible Man*." Gilder says:

> The welfare system makes an irresistible offer to every female over the age of sixteen. The State says, so to speak, to every black girl, "If you have a baby *right now*, we will give you your own apartment, free medical care, food stamps, and a regular income over the next twenty years. If you have another baby soon after, we will increase your allotment." How many teenage girls *anywhere*—Black or White, poor or affluent—can afford their own apartment and pay their own medical expenses at age sixteen? These teenage girls . . . are not morally weak, and they are not sexually lascivious. They are simply rational human beings making the most intelligent choice on how to improve.[19]

Neither Tucker's nor Gilder's important contributions have, however, dealt mainly with what I believe to have been the most serious detriment that has brought about the current situation—

namely, acquiescence in the pseudoprinciple of "the rate for the job" as a criterion for determining labor's just remuneration plus faith in the beneficence of wage rates enacted under nonmarket coercion. Had it not been for the influence of this pseudoprinciple (conspicuous in the rhetoric of the collective determination of the price of labor over the past century), blacks would, I submit, have been well on the way to enunciating a salable program developed to mitigate and solve a majority of the problems that now face them.

The National Urban League, in its report of this conference, frankly admits that "29 percent of all Black men between the ages of 20 and 64 . . . were unemployed in 1982."[20] But as to causes, the League's research director refers only to inadequate schools, high arrest rates, and proportionately high murder and suicide rates. There seems to have been a reluctance to admit that the major cause of the damage wrought on the black people was due to the unwillingness of their community to fight aggressively for well-paid employment by deliberately reducing their per capita demands for wage compensation.

To sum up, in a free society, aggregate real income is maximized and inequalities of income are minimized when every person who wishes to be employed in any undertaking is offered and accepts the minimum necessary to be attracted from leisure or from other pursuits or employments, while those who provide the services of the assets they own are also paid the minimum necessary to obtain that provision or to attract their services from other occupations.

Hence, not a solitary cent of aggregate income has ever been transferred through strike-threat pressures from investors as a whole (the providers and owners of assets) to workers as a whole (the users of assets). The consequences have clearly harmed both groups, more or less in the same proportion, with regressive consequences on the aggregate wages flow. The effects upon the internal flow of savings and the import of capital are of course important, but there has never been a better mechanism for fructifying thrift and, thus, of insuring the advance of economic development than through competition in the free market.

One hears everywhere, however, that the political influence of the unions and the strength of the AFL-CIO and the British T.U.C. are so great that all who contemplate legislation to curb their power to deplete the wages flow are pursuing a hopelessly lost cause—a political will-o-the-wisp. Certainly Parliament in Britain has tried to foster unionism by legislation that confers a

monopoly of bargaining power upon a single union with the right to demand compulsory membership for all employees. This is a stark reality that we must face. And the position is not so different in the United States. But have not circumstances been creating a situation in which the great supposed lost cause can be turned into a triumphant battle cry?

The political influence of the labor unions, however, expressed largely through the federated bodies that I have been blaming (the AFL-CIO and the T.U.C.), has throughout been impoverishing in the worst sense of that term, insofar as that influence has been used especially for the benefit of union membership; i.e., it has aimed at the entrenchment of privileged employment and the protection of the union officials' "profession." In other respects, while those representatives whom the union organizations support or finance may occasionally have used their powers in an enlightened manner for the common good, as spokesmen for the unions they have pleaded for and lobbied for the most sordid of special interests; and in this role they appear to have been conspicuously unconcerned about the interests of the working class as a whole.

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[1] There is a large literature dealing with coercion of this type. Sylvester Petro's contributions are most important. E.P. Schmidt's *Union Power* (Los Angeles: Nash, 1973), especially chapter 9, is another outstanding analysis and exposure of the situation as it still exists today.

[2] Yet investors have taken the risk of providing labor's tools—the assets that multiply the yield to human effort. Moreover, investors continuously finance replacement of materials and work in progress.

[3] The New York transit strike of 1966 is an apt example. The British coal strike of 1926 was almost as disastrous for the uninvolved community as the general strike of that year.

[4] W.H. Hutt, *The Strike-Threat System* (New Rochelle, N.Y.: Arlington House, 1973), p. 44.

[5] Investment in that form must certainly decline relatively to investment in nonunionized activities or in more versatile—less specialized—resources.

[6] Between 1799 and 1825, laws were aimed at strengthening the ancient common law against restraint of trade. Approximately forty statutes applying to particular trades or industries were enacted against monopolistic pricing and wage-rate fixing.

[7] Quoted in Sydney and Beatrice Webb, eds., *History of Trade Unionism* (London: Longmans, 1920), p. 72.

[8] That is, below the wage rates that would be determined in the light of wage rates in alternative employments open to the workers concerned.

[9] Sometimes called "equal pay for equal work," "the standard rate," or "comparable worth."

[10] E.W. Bakke et al., *Unions, Management, and the Public*, 3rd ed. (New York: Harcourt, Brace & World, 1967), p. 19.

[11] Ibid., pp. 80–82.

[12] Elizabeth Beardsley Butler, *Women and the Trades* (Salem, N.Y.: Ayer Co., 1984), p. x.

[13] Ibid., p. xi.

[14] There was a definite tone of anti-semitism about the British antisweating movement of the nineteenth century.

[15] *The American Spectator*, July 1984, p. 14.

[16] Ibid., p. 15.

[17] George Gilder, quoted in ibid., p. 15.

[18] Ibid., p. 15.

[19] Ibid., p. 15.

[20] As reported by UPI in the *Dallas Morning News*, August 1, 1984.

Mises on the Evenly Rotating Economy

J. Patrick Gunning

The term *evenly rotating economy* (ERE) was introduced by Ludwig von Mises in order to distinguish the concept of static equilibrium used by economists from equilibrium models used by students of physical systems. In Mises' view, the mathematical model of physical science had been unwisely extended to economics by writers who had failed to recognize the essential difference between the subject matter of human and nonhuman science. This lack of wisdom was evident from the fact that when even the best mathematical economists set out to describe real economic activity, they had to resort to making assumptions or hypotheses about entrepreneurial activities. In introducing the term ERE, Mises was not proposing that economists adopt a new method of describing economic activity. He was merely proposing that economists use a more accurate phrase to describe the method they had always used but that some economists apparently failed to appreciate.[1]

The phrase *evenly rotating economy* was adopted by only one other economist of note, Mises' student Murray Rothbard. Mainstream economists continued to use the terms *static equilibrium* or *general equilibrium*. Of course, the words one uses are not crucial. Mises could have continued to use the term *equilibrium* if he had convinced his readers to interpret it according to its logical meaning and not its mathematical meaning.

The mathematical meaning of equilibrium derives from an analogy with the laws or regularities of nonhuman phenomena. An example is equilibrium in hydraulics. Hydraulic equilibrium is based on the law of gravity and describes a mathematical relationship between conditions that prevail when the system is set into motion and the conditions that prevail after some period of time when the motion stops. The logical meaning of equilibrium is based on an analogy with the logic of human action. Equilibrium in human action refers to a hypothetical point in time when a human being stops deliberating and proceeds to perform the behavior that is specified by an assumed

plan of action. For an economy, the ERE is an analogous hypothetical point in time when everyone stops deliberating and proceeds to perform the behavior specified by some general plan of action.

When equilibrium is given a logical meaning, one is naturally led to conceive of the preequilibrium actions that would be necessary for the equilibrium to be achieved. Regarding equilibrium in an individual action, one is naturally led to think about the deliberation and experimentation that precedes the point when the individual decides to stop deliberating and to carry out the plan of action. Regarding equilibrium in an economy, one is naturally led to think about the entrepreneurship that activates the "market process." In fact, the concept of equilibrium in an economy has no other use than to help the economist elucidate entrepreneurship. Equilibrium is a notion developed by the economist for the distinct purpose of delineating the entrepreneurial part of economic interaction that the economist knows by intuition (a priori) to be present. The ERE is an imaginary state in which all of the essential economic functions—production, saving, consumption, and factor supply—are performed by automatons. Unless an economist constructs an image of such a state, he finds it impossible to comprehend the full range of entrepreneurship in economic interaction.[2]

The distinctions between the logical and mathematical methods and between logical and mathematical meanings are crucial in Misesian economics. Failure to understand them is a sure route to a failure to understand the meanings of many terms and passages in Mises' economics writings. An example of such a failure is a 1985 critique of Mises' concept of the ERE in the *American Economic Review* by Tyler Cowen and Richard Fink. Cowen and Fink (C-F) correctly suggested that the ERE is an alternative to the mathematical interpretation of the Arrow-Hahn-Debreu model of general equilibrium. However, they went on to say that there are "serious inconsistencies in both the nature of the ERE and its suggested uses." They proceeded to present criticisms of four uses that they claim were proposed by Mises and Murray Rothbard.

This article is intended to absolve Mises of the C-F criticism. By means of quotations, text references, and argument, I shall attempt to show that C-F misrepresented Mises' views, that they failed to identify the fundamental use(s) that Mises claimed for the ERE, and that their own evaluation of the usefulness of the ERE is faulty. More importantly, I will argue that Mises

demonstrated that equilibrium constructs, properly conceived, are not only useful but necessary. Without them, there is no way to provide a meaningful description of the most significant activity that occurs in a market economy: entrepreneurship.[3]

This article proceeds by addressing each of the four C-F criticisms in turn. In the process, Mises' ideas and the apparent reasoning behind them are identified and discussed.

Explanation, Prediction, and Disequilibrium

The first use that C-F claim Mises suggests is that "the ERE can be used to explain or 'predict' the direction of change" (p. 866). I could find no remark by Mises to substantiate the C-F view that Mises makes this suggestion. It is true that Mises says that complex phenomena can only be studied by abstracting from change and then introducing an isolated factor to provoke change (p. 248). But this is not the same as saying that a purpose of ERE is to explain or predict the direction of change. C-F provide no references to Mises' writings in their discussion of this point.

It is a misuse of language to employ the terms *explain* and *predict* to refer to what Mises hoped to accomplish by introducing an isolated factor to provoke a change. To most economists, these terms refer to descriptions of actual economic activity. Economists explain why the price of sugar fell and they predict the statistical rate of unemployment. In the passages where Mises discusses change, however, he is not interested in the particular consequences of a provoking factor change. He is concerned with describing a mental process that can be used by an economist to acquire a personal understanding of entrepreneurship in a market economy. The change to be provoked is a hypothetical change. The procedure Mises has in mind can be expressed in the following way. Supposing that products are related to factors of production according to the theory of imputation implied in the ERE, we want to form some hypotheses about how the relationships would change if we introduced a change in the data. Then, having done so, we want to imagine the various (entrepreneurial) actions that individuals would have to take to cause the relationships to change. Mises defines *data* as "the bodily and psychological features of the acting men, their desires and value judgments, and the theories, doctrines, and ideologies they develop in order to adjust themselves purposely to the conditions of their environment and thus to attain the ends they

are aiming at" (p. 646).

The expressions used by C-F to discuss Mises' use of ERE with respect to "change"—namely, that "the ERE can be used to explain or 'predict' the direction of change" or that "the ERE is a starting point for the analysis of particular changes"—mislead the reader. They incline him to think that Mises was a positivist of some type. Mises criticized positivism.

The C-F discussion of this use focuses on the question of whether there is a tendency toward equilibrium. It consists of two parts. In the first part, they appear to criticize Rothbard and, by implication, Mises for claiming that there is a tendency toward equilibrium (p. 867). Interestingly, however, they seem to (unwittingly?) echo Mises. Mises says that we should not "disregard the fact that the market is [continuously] agitated by factors which must result in further price changes and a tendency toward a different state of rest" (p. 246).

Lest I leave the reader with the wrong impression, it is still true that C-F and Mises are addressing different issues. The preceding quotation from Mises should not be interpreted to mean that economists' efforts to predict the direction of a change in price must take "disequilibrating factors" into account. He is simply not interested in prediction. He is referring instead to the main function that he believed the ERE serves: the elucidation of entrepreneurial profit and loss.[4] He is saying that to recognize how entrepreneurs contribute to the determination of prices under the conditions specified in his definition of the market economy, economists must take account of the fact that prices are continually changing.

The second part of the C-F discussion addresses the view that "there is a tendency towards equilibrium in a world of frozen data" (p. 867). Mises, in discussing entrepreneurship, says: "These endeavors of the entrepreneurs would finally result in the emergence of the evenly rotating economy if no further changes in the data were to appear" (p. 329). C-F correctly point out (given their meaning of the word *tendency*) that "this implies . . . nothing about whether there is a tendency towards equilibrium in a world where the data are not frozen." But they reveal their misunderstanding of Mises when they go on to say that the Mises view would just as easily admit "a tendency toward disequilibrium." And further: "By allowing the data to change just as it does in the real world, and 'freezing' all individual learning, we can demonstrate that the economy would degenerate into a series of successively less-coordinated states of

disequilibrium."

The problem with C-F's criticism is that it is based on a *mathematical* definition of equilibrium and not a *logical* definition consistent with Mises' pure logic of action. In the logical definition, the concept of disequilibrium is meaningless. To say that there is a tendency toward disequilibrium is like saying that individuals do not make choices.

Mises constructed a pure logic of action. In this logic, he sought to deduce outcomes based on the assumption that individuals choose. It should be evident that, in such a logic, there is no place for a statement that individuals do not choose. As part of his pure logic of action, Mises also constructed a logic of entrepreneurial action. This logic sought to identify and elucidate the entrepreneurial discovery of the data and the acts associated with trying to profit from such a discovery by promoting exchanges. In this logic, there is no place for a statement that entrepreneurs do not discover and do not try to profit from their discoveries. *Yet* this is precisely what is implied by the statement that there is a "tendency toward disequilibrium," at least if one applies this statement to the ERE. Such a statement implies that the data cannot be discovered or that a profit cannot be earned by doing so.[5]

Analysis of Complex Phenomena

The second use of the ERE attributed to Mises by C-F is that the "ERE is an analytical building block or stepping stone towards analyzing complex phenomena in a world of change." I think that this is a correct though vague characterization of Mises' view. However, C-F's criticism of it fails to account both for Mises' own statements on the matter and for Mises' purpose. C-F claim that such a use of the ERE is open to question because "there are no prices in the evenly rotating economy." (p. 867). Mises says that the ERE "is a fictitious system in which the market prices of all goods and services coincide with final prices" (p. 247).

To C-F, it is a contradiction to maintain that we can learn something about how prices are formed by employing an image which, by definition, assumes that the prices are already formed. Their discussion in this respect ends with the rhetorical question: "How can an imaginary construct illuminate an institution [the system of markets and prices] that performs absolutely no function within that construct?" (p. 868).

C-F's misinterpretation on this issue is due to their failure to grasp the fact that the ERE was employed by Mises solely to elucidate the entrepreneurship that causes factors of production to exist in a causal relation with wants. Mises' use of the ERE to elucidate entrepreneurship can be most forcefully shown by an analogy to a one-person choice. In describing and understanding the nature of an individual's choice, we would have to have in mind the ends that are sought. It would be senseless to attempt to describe or understand the deliberation process that precedes a choice, the learning that occurs, the experimentation that an individual carries out, and so on, unless we had in mind a set of ends the individual was trying to achieve. Another way to put this is to say that to elucidate deliberation processes and so on, we must have in mind an end point, namely, a point at which a choice is made.[6] With this idea in mind, we proceed to work our way back, so to speak, to the activities that an individual can perform to cause this end point to be reached. It is difficult to conceive of any other way to proceed. If one merely described physical behavior and labelled it "deliberation," "learning," and so on without at the same time telling the end that was sought, his descriptions would be impossible to assess.

Similarly, it is essential for the economist to have a series of relative prices, production operations, and a final distribution of goods in mind when he begins to explore the signalling and trading processes through which the prices, production, and distribution are achieved. These prices, and so on are merely the economist's abstract conceptualization of the ends of "consumers" and of the consequences of the entrepreneurial decisions that enable the ends to be met in some measure.

It is true that one can hardly conceive of the ends of all consumers and of the many interdependent entrepreneurial decisions that cause them to be achieved. Nevertheless, without such a conceptualization, the whole notion of economic interaction itself dissolves into a fruitless analogy with nonhuman systems. The burden of the economist is to devise means of making such conceptualizations, however imperfect they must be.

Since Mises regarded the ERE as the outcome of a choosing process that involved entrepreneurship, it is easy to answer C-F's rhetorical question. Entrepreneurship, the cause of the prices, can only be understood if we have in mind a pattern of prices, production operations, and a final distribution of goods. The ERE is such a pattern.

Analysis of Changes

The third use to which the ERE has been put, according to C-F, is that the "ERE is a starting point for an analysis of the effects of particular changes" (p. 866). They take this to refer to the analysis of the effects of an exogenous shock upon the economic system. I noted previously that Mises speaks of introducing an isolated factor to provoke change, but that by change he meant a change in desires, value judgments, and so on. However, I do not think that a change in these data is what most economists mean by an exogenous shock. Whereas a change in the data suggests the logical method, an exogenous shock suggests the mathematical method.

The mathematical method of representing equilibrium assumes that individuals operate according to maximization rules. Such operations cause "economic variables" to be deducible from a given set of parameters. An exogenous shock is synonymous with a change in a parameter. The effect of such a shock is a change in the values of the variables. The solution describes the direction and/or size of the change in values.

The logical method sees equilibrium as a relationship between products and factors of production—a theory of imputation. It is assumed that the relationship is a consequence of profit-seeking entrepreneurial choices, but the equilibrium reveals nothing about the nature of those choices. To discover what they are, the economist must imagine some change in the *data*. Then, by projecting himself into the positions of different individuals who buy the products and supply the factors of production, he must ask how he could avoid a loss or earn a profit. It should be obvious that to employ the term *exogenous shock* to refer to a change in the data in this context is likely to be misleading.[7]

Beyond this, C-F make a mistake when they introduce an example to illustrate what they take to be the contradictory nature of ERE. Their example is the Austrian theory of the trade cycle. They say that "using the ERE analysis as a starting point for the analysis of monetary intervention (for example, Rothbard and Mises' business cycle theory) involves the contradiction of superimposing an increase in the money supply upon an essentially moneyless world" (p. 868). This statement cannot be squared with Mises' trade-cycle theory. In a section where he introduces a discussion of a change in the quantity of money, Mises clearly acknowledges that money is incompatible with the

ERE (p. 417). It would be stretching the imagination to suppose that having said this (and having referred the reader to an early section where the same point was made), Mises would proceed to superimpose an increase in the money supply upon an essentially moneyless world. The fact is that Mises superimposes the increase on a changing world in which money is already employed as a means of signalling and reckoning. In short, Mises does not use the ERE to describe the trade cycle.

In considering how Mises described entrepreneurship in the study of economic change, one should be careful not to conclude that this was Mises' only conception of entrepreneurship. In the theory of economic change, one begins with a starting point in which certain factors and goods are already being produced and used, in which certain markets are already created, and in which data are defined by the economist and do not need to be discovered. The range of activities that are involved in reaching an end point under such circumstances is obviously limited. There is no reason, however, why the praxeological method should limit itself to such a rigid starting point. One may start with a situation in which there is a complete absence of markets, an absence of previously produced factors, and an initial absence of knowledge of others' wants, abilities, and knowledge. Entrepreneurship can then be imagined to identify the data, create markets, and produce factors and goods such that an ERE is eventually established. Mises does not emphasize this point and most of his discussions of entrepreneurship are limited to the context of economic change. Nevertheless, the point is evident from his remarks.[8]

ERE as a Foil

The fourth use to which C-F claim Mises and Rothbard put the ERE is as a "foil." The word *foil* is ambiguous. Mises does not use the term so far as I know. As a result, I was unable to find the proper reference for the C-F criticism.[9] The term itself seems to suggest that Mises uses the ERE as a sort of strawman against which to pit his own approach to economic phenomena. This interpretation, however, is not consistent with the C-F discussion. C-F's discussion uses the term *foil* in the same sense that Mises uses the term *argumentum a contrario*.[10]

The argument that C-F make claims in essence that Mises' *argumentum a contrario* is nonsensical: "If, as Mises claims . . . the ERE has no human action, then we cannot claim there is a

tendency towards equilibrium, since this would imply the nonsensical conclusion that there is a tendency for human action (and human institutions) to disappear" (p. 868). The error here is C-F's failure to recognize that the ERE is regarded by Mises as an imaginary or hypothetical *consequence* of entrepreneurial choices, not as a descriptive or mathematical model. There is nothing nonsensical about saying that economists can better (or only) understand entrepreneurship by contrasting a state in which there is a motivation for entrepreneurial action with an imaginary state in which the motivation is no longer present. It is, of course, nonsense to argue that the state in which entrepreneurial action is present is like the state in which it is not present.

C-F are not alone in their misinterpretation of Mises' *argumentum a contrario*. O'Driscoll and Rizzo (1985) say that "from Mises' perspective, the exact equilibrium construct merely provides us with a clue as to why certain results do not obtain. Hence it is capable of only negative prediction. It does not elucidate the actual processes by which those states may be achieved." They go on to say that Mises' method "does not permit us to offer a logically sufficient explanation for the 'failure' of actual processes" (p. 82).

The language O'Driscoll and Rizzo (O-R) use, like that of C-F, conjures up the image that the nature of the processes through which equilibrium is achieved is a *scientific* mystery. This language misleads the reader about Mises' intent. In using the ERE as an *argumentum a contrario*. Mises was not interested in determining why equilibrium was not reached, in providing a clue as to why, or in making predictions. His sole concern with the equilibrium model was to employ the model's implicit theory of imputation as a framework for identifying entrepreneurship.

Rather than a foil, the *argumentum a contrario* is like an infrared lens that makes it possible to identify a phenomenon that cannot be identified in any other way. To be sure, it does not guarantee that what one sees is what he believes he sees. But without the lens, he would be unable to see anything at all.

Conclusion

In my view, Mises' *Human Action* is at the same time the most important economics book of this century and the easiest to misunderstand. Among its many contributions is its correct statement of the meaning and usefulness of the concept of static

equilibrium, or evenly rotating economy, in economic analysis. Mises' argument was that the ERE is an end point—a complex relationship between consumers' subjective values and factors of production.

Without a theory that contains such an end point, it would be impossible to make sense of the entrepreneurial actions and the consequences that are so readily observable in a market economy. Our observations would be facts without a theory—or, more correctly, they would be meaningless accounts. We could not distinguish them from any other observations. In short, whenever we say "X is a resource" (or "C is a cost"), we must, in the backs of our minds, have an idea of the wants X will help to satisfy (the want satisfaction that must be foregone) and the entrepreneurial activity that caused the relation between X (C) and the want to come into existence. "X is a resource" has no other meaning. And we could not properly say that X is a resource unless this is what we mean.

The ERE is simply a means of conceptualizing a combination of exchanges. As we attempt to work our way back from the ERE, we must identify the ultimate ends, the intermediate ends, the separate exchanges, and "means of coordination" within a "real" market economy. As the entrepreneurial activities that might lead the ends to be achieved are identified, a theory of imputation unfolds in which one learns the wide range of factors of production that contribute to the satisfaction of wants. One also learns how these factors would not exist and the wants would not be satisfied without entrepreneurial action.

The fundamental error made by C-F might be stated as follows. They were interested in the question of whether the ERE is a useful model of prices, outputs, and other variables typically identified in the simultaneous equations of the mathematical models of static equilibrium. They interpreted the ERE as an abstract representation of a real economy which contained these variables. Then they asked whether it was a useful abstraction. Their answer was no, the same answer that Mises himself gave. They neglected to ask, however, whether the ERE is a useful reference for helping one identify and describe the entrepreneurial actions that are intended to cause exchanges to occur. They also neglected to identify this purpose as the only one that Mises felt the ERE was equipped to help the economist accomplish. Without the ERE, Mises argued, there would be no way to identify and discuss entrepreneurship. Failing to identify why Mises used the ERE and focusing on a purpose for which

they believed it should be used, they completely misinterpreted and misrepresented Mises' views.

Mises warned users of the ERE. He pointed out that the method of imaginary constructions, of which ERE is an example, "leads along a sharp edge: on both sides yawns the chasm of absurdity and nonsense. Only merciless self-criticism can prevent a man from falling headlong into these abysmal depths" (p. 237).

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† Professor Hutt died on June 19, 1988.

[1] See Mises, *Human Action*, 1966, p. 239.

[2] The following passages from Mises (1966) are significant in supporting this interpretation of the distinction between the mathematical and the logical methods:

> The mathematical economists [who have adopted the mathematical method as opposed to the logical method] disregard dealing with the actions which . . . are supposed to bring about the evenly rotating economy. (p. 250)

In other words, they disregard entrepreneurship.

> Now, the mathematical economist does not contribute anything to the elucidation of the market process [i.e., the process in which entrepreneurship is the driving force]. He merely describes an auxiliary makeshift [the ERE] employed by the

> logical economists as a limiting notion, the definition of a state of affairs in which there is no longer any action and the market process has come to a standstill. That is all he can say. What the logical economist sets forth in words when defining the imaginary constructions of the final state of rest and the evenly rotating economy and what the mathematical economist himself must describe in words before he embarks upon his mathematical work, is translated into algebraic symbols.
>
> Both the logical and the mathematical economists assert that human action ultimately aims at the establishment of such a state of equilibrium and would reach it if all further changes in the data were to cease. But the logical economist knows much more than that. He shows how the activities of enterprising men, the promoters and speculators, eager to profit from discrepancies in the price structure, tend toward eradicating such discrepancies and thereby also toward blotting out the sources of entrepreneurial profit and loss. . . . This is the task of economic theory. . . . The problem is the analysis of the market process.
>
> The mathematical method is at a loss to show how from a state of nonequilibrium those actions spring up which tend toward the establishment of equilibrium. (pp. 355–56)

[3] I find it quite puzzling that Israel Kirzner has not emphasized the logical method and the evenly rotating economy in his writings on entrepreneurship. It is beyond the scope of this article to enter into a discussion of the nature of entrepreneurship. Suffice it to say at the moment that in the author's view, there appears to be a substantial difference between the method of identifying entrepreneurship used by Mises and that used by Kirzner. See Gunning (1988).

[4] Mises says this repeatedly throughout his book. I think, however, that his most complete statement is on p. 248.

> These insoluble contradictions [that change is eliminated in the ERE, that the ERE is not peopled with living men and that real action does not correspond to the ERE], however, do not affect the

> service which this imaginary construction renders for the only problems for whose treatment it is both appropriate and indispensable: the problem of the relation between the prices of products and those of the factors required for their production, and the implied problems of entrepreneurship and of profit and loss.

In short, Mises sees ERE as a starting point for a theory of imputation in which the principal consideration is profit seeking by the entrepreneur.

[5] This interpretation appears consistent with the only reference I could find to disequilibrium in Mises' *Human Action* (p. 431).

[6] This interpretation is consistent, I believe, with the only other statement I could find that could possibly be misinterpreted. In speaking of the ERE, Mises says that "in order to analyze the problems of change in the data and of unevenly and irregularly varying movement, we must confront them with a fictitious state in which both are hypothetically eliminated" (p. 247). Keeping in mind Mises' meaning of *data*, this statement cannot mean, I maintain, that the ERE can be used to explain or "predict" the direction of change or that the ERE is a starting point for the analysis of particular changes unless by *change* one means a change in desires, value judgments, and so on.

[7] A critic might claim textual support for the view that Mises did not use the term ERE to refer to an end point. Instead, the critic would say, he used the concepts of the final state of rest and the final price to refer to this. Consider specifically the following quote:

> In dealing with the plain state of rest, we look only at what is going on right now. We restrict our attention to what has happened momentarily and disregard what will happen later. We are dealing only with prices really paid in sales, i.e., with the prices of the immediate past. We do not ask whether or not future prices will equal these prices.
>
> But now we go a step further. We pay attention to factors which are bound to bring about a tendency toward price changes. We try to find out to what goal [!] this tendency must lead before all its driving force is exhausted and a new state of rest emerges. The price corresponding to this future

> state of rest was called the *natural price* by older economists; nowadays the term *static price* is often used. In order to avoid misleading associations it is more expedient to call it the *final price* and accordingly to speak of the *final state of rest*. (p. 245)
>
> The imaginary construction of the final state of rest is marked by paying full regard to change in the temporal succession of events. In this respect it differs from the imaginary construction of the *evenly rotating economy*, which is characterized by the elimination of change in the data and of the time element. . . . The evenly rotating economy is a fictitious system in which the market prices of all goods and services coincide with the final prices. . . . The same market transactions are repeated again and again. . . . The plain state of rest is disarranged again and again, but it is instantly reestablished at the previous level. . . . [In constructing the evenly rotating economy], [w]e are free to assume that infants are born, grow old, and finally die, provided that total population figures and the number of people in every age group remain equal. Then the demand for commodities whose consumption is limited to certain age groups does not alter, although the individuals from whom it originates are not the same. (pp. 246–47)

The suggestion here is that the ERE is what might be called an "actionless economy." It appears to be a model of an economy in which there is no action, only repetitive behavior. "Automatic action is substituted for the conscious striving of thinking man after the removal of uneasiness" (p. 249).

In this preliminary discussion of the usefulness of the ERE (pp. 246–50), Mises does not indicate that he intends to use the ERE as an end point. Here he suggests only that by contrasting an image of a rigid economy such as the ERE with our knowledge of economic interaction in everyday life, "we are led to the insight that dealing with the uncertain conditions of the unknown future . . . is inherent in every action" (p. 250). This means that we are led to the insight that entrepreneurship exists in everyday life.

Following these preliminary statements, however, it is clear

that Mises proceeds to use the ERE as an end point. Consider the following discussion of the prices of factors:

> The tasks incumbent upon the theory of prices of factors of production are to be solved by the same methods which are employed for treatment of the prices of consumers' goods. We conceive the operation of the market of consumers' goods in a twofold way. We think on the one hand of a state of affairs which leads to acts of exchange: the situation is such that the uneasiness of various individuals can be removed to some extent because various people value the same goods in a different way. On the other hand, we think of a situation in which no further acts of exchange can happen because no actor expects any further improvement of his satisfaction by further acts of exchange. We proceed in the same way in comprehending the formation of the prices of factors of production. The operation of the market is actuated and kept in motion by the exertion of the promoting entrepreneurs, eager to profit from differences in the market prices of the factors of production and the expected prices of the products. The operation of this market would stop if a situation were ever to emerge in which the sum of the prices of the complementary factors of production—but for interest—equaled the prices of the products and nobody believed that further price changes were to be expected. Thus we have described the process adequately and completely by pointing out, positively, what actuates it and, negatively, what would suspend its motion. The main importance is to be attached to the positive description. The negative description resulting in the imaginary constructions of the *final price* and the *evenly rotating economy* is merely auxiliary. For the task is not the treatment of imaginary concepts, which never appear in life and action, but the treatment of the market prices at which the goods of higher orders are really bought and sold. (p. 334) (emphasis added)

Mises goes on to attribute the method to Gossen, Carl Menger, and Böhm-Bawerk.

Also consider the following discussion of changes that are initiated by an increase in saving.

> All these changes in the prices of factors of production begin immediately with the initiation of the entrepreneurial actions designed to adjust the processes of production to the new state of affairs. In dealing with this problem as with the other problems of changes in the market data, we must guard ourselves against the popular fallacy of drawing a sharp line between short-run and long-run effects. What happens in the short-run is precisely the first stages of the chain of successive transformations which tend to bring about the long-run effects. The long-run effect is in our case the disappearance of entrepreneurial profits and losses. The short-run effects are the preliminary stages of this process of elimination which *finally, if not interrupted by a further change in the data, would result in the emergence of the evenly rotating economy*. (p. 296) (emphasis added)

Finally, Mises' approach should be evident from the introductory statement to his section entitled "The State of Rest and the Evenly Rotating Economy":

> The only method of dealing with the problem of action is to conceive that action ultimately aims at bringing about a state of affairs in which there is no longer any further action, whether because all uneasiness has been removed or because any further removal of felt uneasiness is out of the question. Action thus tends toward a state of rest, or absence of action. (p. 244)

[8] Anyone who doubts that Mises conceived of entrepreneurship so broadly should consider Mises' discussion of the promoter. In this discussion, he begins by distinguishing the entrepreneur from the capitalist-landowner and the worker. He says that the purpose of this is to identify a functional distribution. In this division of functions, the "[e]ntrepreneur means acting man in regard to the changes occurring in the data of the market" (p. 254). Then he goes on.

> Economics, however, always did use the term *entrepreneur* in a sense other than that attached to it in the imaginary construction of the functional distribution. It also calls entrepreneurs those who are especially eager to profit from adjusting production to the expected changes in conditions, those who have more initiative, more venturesomeness, and a quicker eye than the crowd, the pushing and promoting pioneers of economic improvement. This notion is narrower [!] than the concept of an entrepreneur as used in the construction of the functional distribution; it does not include many instances which the latter includes. (pp. 254–55)

[9] The term *foil* is apparently taken from Hayek (1941). Hayek states that "it is only by contrast with this imaginary state, which serves as a kind of foil, that we are able to predict what will happen if entrepreneurs attempt to carry out any given set of plans" (p. 23). Interestingly, Hayek also stresses the idea, repeated by C-F and attributed to Mises, that "[t]he ERE can be used to explain or 'predict' the direction of change" (p. 866). This is not the place to describe what I believe to be a substantial difference between Hayek's belief about the usefulness of equilibrium and Mises' belief.

[10] Mises says that we can only discover the conditions of "a living world in which there is action" (which means the kind of economic reality that contains a variety of entrepreneurial activities) "by the *argumentum a contrario* provided by the image of a rigid economy" (p. 250).

Subjective Cost Revisited

William Barnett II

In volume 1 of *The Review of Austrian Economics*, Professor Leland Yeager exhibits a lack of understanding of the concept of (subjective) cost as explicated by Professor Buchanan.[1] Yeager presents the following example:

> Suppose the best course of action open to me is, in my judgment, to open a restaurant of a quite specific type in a specific location. The next best course, then, is presumably to open a restaurant identical in all but some trivial detail, such as the particular hue of green of the lampshades. If so, the cost of the precise restaurant chosen is presumably an all but identical restaurant worth to me, in my judgment, almost fully as much. Generalizing, the cost of a chosen thing or course of action is very nearly the full value that the decisionmaker attributes to it.[2]

This leads him to "a serious question. How far from identical to the chosen course of action must the next best alternative be to count as a distinct alternative?"[3]

It is important to note that Professor Yeager's example does not concern a decision facing some other person, but rather a decision facing himself. Therefore, when he says, "The next best course, then, is presumably . . ." and, "the cost . . . is presumably . . ." in referring to an alternative, we may, and I do, assume that he is relating this information qua decisionmaker and that it reflects the true state of mind of the decisionmaker. Of course, no one but the individual decisionmaker can know what the decisionmaker considered to be the best alternative and the utility he attached thereto, at the moment of decision, except the decisionmaker himself.

Dr. Block, in volume 2 of *The Review of Austrian Economics*, responds: "The only answer consistent with Austrian subjectivism . . . is that it is up to the individual evaluator."[4] This response is inadequate. Block is drawn into it by falling into the old trap of allowing the other person to frame the issue. The way in

which Yeager formulates the question is misleading; it implies an incorrect understanding of the concept of alternatives. That is, to the extent that the decisionmaker perceives the courses of action to be identical, they are not alternatives; rather, it is only to the extent that the person perceives the courses of action to differ that they are alternatives. Thus choice and, necessarily, cost relate to the differences among possible courses of action, not to the elements that are identical.

Therefore, in Yeager's example, since the difference between the relevant courses of action extends only to the color of the lampshades, the choice extends only to the color of the lampshades. And since the choice extends only to the color of the lampshades, the only cost involved is that of the chosen color of lampshades. This cost is in terms of forgone utility. That is, so as, at the moment of choice, the benefit of the choice resides in the utility he expects to gain from having lampshades of the color of choice, so also the cost of the choice resides in the utility he expects to forgo from not having lampshades of the color he thinks he would choose if he did not choose the color he did choose. Thus the choice was misstated. It was not between opening "a restaurant of a quite specific type in a specific location" and opening "a restaurant identical in all but some trivial detail."[5] Rather, the choice was actually with respect to the trivial detail.

Thus Yeager's question as to the magnitude of difference necessary to make alternatives distinct is seen to be based on a misunderstanding of the concept of alternatives and, necessarily therefore, of the concepts of choice and cost. The correct response to Yeager's question is that it is only the differences among possible courses of action that comprise grist for the mill of choice. Thus choice and, necessarily, cost exist only with respect to these differences. And Yeager's generalization is, of course, false.

I am grateful to an anonymous referee for helpful comments.

[1] James M. Buchanan. *Cost and Choice*. Chicago: Markham, 1969.

[2] Leland B. Yeager. "Why Subjectivism?" *The Review of Austrian Economics*, vol. 1 (1987), p. 24.

[3] Ibid., p. 25.

[4] Walter Block. "On Yeager's 'Why Subjectivism?'" *The Review of Austrian Economics*, vol. 2 (1987), p. 204.

[5] Yeager, p. 24.

Reply to Comment by William Barnett II

Leland B. Yeager

My lampshade example adequately described the supposed situation. Whether the choice "actually" (to quote Professor Barnett) lay between alternative lampshades or alternative restaurants is a purely verbal question to which either answer would be as empty and uninteresting as the question itself. In pressing that question, Professor Barnett shows he did not grasp the purpose of my example, which was to heap deserved ridicule on certain sorts of brooding over the concept of cost.

Ever since being exposed (probably back in college) to the notion of cost as the forgone next-best alternative, I had been vaguely uneasy about it. Only when working on my article in *Review of Austrian Economics*, volume 1, and on my reply to Walter Block in volume 2 did I begin to articulate for myself just what about that notion made me uneasy.

To focus on the decisionmaker agonizing over his choices trivializes the analysis of cost. *Of course* no mere observer can fully enter into the decisionmaker's mind and soul and share his feelings about the merits of the course of action that he finally identifies as next best and accordingly rejects. All this is familiar material and need not be erected into a fundamental insight of economics.

To ramble on about the ineffabilities of choice obscures what is not so obvious and what can be understood only through technical economic analysis. This is the social significance of money cost and the way money cost conveys abbreviated information to the decisionmaker about circumstances in parts of the economic system outside his immediate ken, including even information about subjective circumstances, such as the abilities and preferences of myriad persons whom the individual decisionmaker could not possibly know. The prospective money costs (as well as prospective money revenues) of alternative lines and scales of production—and, more generally, the money numbers associated with alternative courses of action—do not exhaust what a decisionmaker needs to know, but they are an important part. Economic analysis has the task of explaining

what those numbers signify in the economywide context, including their role in conveying information and incentives. (Students of F.A. Hayek's writings will know what I am alluding to. What I am saying here is compressed, by the way, and should be read along with the qualifications mentioned in my original article.)

The way Professor Barnett latches onto one short paragraph in my article again illustrates a curious trait found in some strands of otherwise admirable writings. This is a tendency to be diverted from substantive economics into pointless profundities of methodology and into brooding over merely verbal issues.

Comment on Tullock's "Why Austrians Are Wrong About Depressions"

Joseph T. Salerno

Let me preface my comment with the following caveat: I am skeptical of the value of a scholarly journal article that attempts to critically evaluate the "canonical version" of an economic theory, particularly when the theory in question deals with a phenomenon as complex as the business cycle. Added to this is my uneasiness over the fact that the version that is chosen for criticism (Rothbard [1969]) was intended as a popular exposition of the theory. This hardly does justice to the profundity of the Austrian theory of the business cycle or to the scholarship of Murray N. Rothbard. If one wishes to pen a brief critique of the general thrust of Austrian cycle theory, it is more appropriately done as an explicit book review, say, of an anthology such as Mises et al. (1983). Having expressed these reservations, I proceed with my comment.

The three nits that Hillock picks at the beginning of his article in *The Review of Austrian Economics*, volume 2 (pp. 73–74), deserve comment because they bear out the concerns I mentioned in the preceding paragraph. First, the author correctly notes that, in the particular pamphlet under review, "Rothbard never explains why the inflation which is part of his theory cannot simply be continued or even accelerated." But, of course, this question is dealt with in many advanced expositions of Austrian cycle theory. As one of numerous examples, Rothbard (1970, volume 2, pp. 875–77), himself, addresses the issue under the heading of "The Ultimate Limit: The Runaway Boom." Moreover, Hillock's personal testimony that hyperinflation "is undeniably unpleasant, but not really a disaster" (p. 73), while certainly provocative, is irrelevant with respect to this issue. It is sufficient that the political and monetary authorities who orchestrate the inflationary boom fear the eventuality of hyperinflation and act to prevent it. Thus, for instance, the proximate cause of the 1980–82 U.S. depression was the well-publicized decision of the Volcker Fed to "disinflate" the

economy from highly unpopular double-digit inflation levels by reining in the growth of money and bank credit.

The author's second nit (p. 73) concerns Rothbard's alleged failure to come to grips with the question of why entrepreneurs do not eventually learn about, correctly forecast, and adjust their investment activities to the business cycle. In current jargon, the author is questioning why Austrian cycle theorists do not assume that market participants are capable of formulating "rational expectations," which incorporate a correct theory of economic relationships and preclude systematic forecasting errors. Without attempting to provide an answer to this question here, suffice it to say that the issue has been discussed by a number of Austrian cycle theorists, including Mises (1943), O'Driscoll (1977, pp. 106–08; 1979, pp. 166–68), and Garrison (1986, pp. 445–47). Once again, the author's decision to avoid grappling with the extensive literature on the theory has led him to suggest a lacuna in the theory that simply does not exist.

The final nit Tullock picked out (p. 74) stems from his apparent misunderstanding of the methodological context of the Austrian business-cycle theory. Thus the author faults Rothbard for ignoring the results of statistical tests that suggest that depressions and booms do not follow a cycle but, instead, follow a so-called "random walk." This is beside the point, however, since Austrians do not construe the term *business cycle* as a mechanistic or statistical regularity that openly manifests itself in history, but as a recurring qualitative sequence of abstract economic phenomena that can only be detected in the historical data by the application of theory. In an early contribution, Mises (1978, p. 117) wrote: "Neither the connection between boom and bust nor the cyclical change of business conditions is a fact that can be established independent of theory. Only theory, business cycle theory, permits us to detect the wavy outline of a cycle in the tangled confusion of events." The author could have found a concise and lucid discussion of the methodological foundations of Austrian cycle theory in Rothbard (1975, pp. 1–7).

With regard to Tullock's "major objection" to the theory, his argument (pp. 3–10) is likewise marred by an apparent unfamiliarity with advanced expositions of the theory. I shall not attempt here to give a point-by-point critique of the author's main argument that, during a typical Austrian business cycle, "there would be only minor transitional unemployment [and] measured GNP would be higher as a result" (p. 74). It is enough

to point out that the author's conclusion rests on basic misconceptions about Austrian capital theory and structure-of-production analysis.

First, the author appears to ignore the important notion of intertemporal complementarity in the structure of production. Thus, even if the higher-stage investment projects and production processes induced by the artificially depressed interest rate are eventually completed in the technological sense, they still may be underutilized or wholly abandoned during the depression-adjustment phase. The reason is that the products yielded by these higher-order processes confront greatly contracted market demands, resulting from the suddenly revealed increased scarcity (and hence money costs) of the temporally "nonspecific" inputs with which they must be combined in lower-order production processes.

For example, a newly completed iron ore mine may be abandoned because, at any technically feasible rate of output, the price of the ore has fallen below the "marginal costs" of the mine's operation, including wage rates, prices of fuels, and the rents of power generators and hauling vehicles. Higher prices for the services of labor and of the other relatively nonspecific inputs or "convertible" capital goods are due, in turn, to the fact that too great a proportion of the available stock of these resources was erroneously invested in the production of "inconvertible" or "specific" higher-order goods, such as the iron mine shaft and related "fixed" investments. The higher monetary costs of nonspecific resources, which make their continued employment in certain higher-stage processes uneconomic, simply reflect the fact that such resources have higher marginal revenue products in the lower-stage processes from which they were originally diverted during the inflationary boom. The bankruptcies and resource unemployment occurring in the mining and mining-equipment industries during the depression-adjustment phase are thus part and parcel of the process by which labor and other nonspecific factor inputs are reallocated to finished-goods production and to the wholesale and retail industries. It is the metaphorical "structure of production" itself—not necessarily particular factories or other construction—that cannot be completed, due to the unanticipated scarcity of capital that is suddenly revealed during the depression-adjustment phase.

A second basic confusion of the author involves his apparent belief that Austrian cycle theory indicates that an interest rate temporarily lowered by monetary inflation will lead to general

overinvestment in capital *and* consumer-goods industries (Tullock, pp. 5–7). But the main insight of Austrian cycle theory is that the inflationary boom induces "malinvestment," which denotes a diversion of scarce factors and money capital away from consumer-goods industries into capital-goods or, more generally, "higher-stage" industries, including, for example, investments in specially designed computers and software for specific R&D projects, expanding facilities supplying wildcat oil drillers, site planning for new hydroelectric plants, and so on. With scarce resources thus reallocated higher up the ladder of the structure of production, there necessarily occurs at least a temporary reduction in the quantities of final consumer goods produced.

Moreover, the uneconomic commitment of labor services and other non-specific resources to the expansion of the production of relatively inconvertible higher-stage goods such as industrial construction and equipment will ultimately be revealed in an unforeseen bidding up of wage rates initiated in the lower stages, when it is discovered that available stocks of labor inputs are insufficient to complement the full array of products beginning to flow forth from the overbuilt higher stages. Such intertemporal price variations result in a shifting of labor as well as convertible capital goods into the relatively undermanned and underequipped lower-stage industries and account for the corresponding bankruptcies and retrenchments of overcapitalized higher-stage firms, thus bringing about the abandonment of many of the investments—whether technologically completed or not—in inconvertible higher-order capital goods. Even where the latter constitute completely sunk costs, they still may be entirely abandoned, because their continued utilization at any level of output does not generate an income sufficient to cover the "opportunity costs" of their complementary nonspecific factors, such as labor.

It is precisely the abandoned or underutilized factories, equipment, power-generating sites, mines, and R&D projects that represent the "malinvested" capital of the boom period characterized by artificially lowered interest rates. In view of this wasted capital investment, the aggregate capital/labor ratio for the economy and, therefore, marginal productivity of labor and real wage rates can be expected to be lower than if investment of scarce productive resources and the "length" of the production structure had been determined by genuine market time preferences, which are reflected in the unmanipulated or

"natural" interest rate. Thus, contrary to Tullock's contentions (pp. 3, 10), Austrian cycle theory *does* explain the observed drop in "measured GNP" and in laborers' living standards during the depression.

At the end of his article (pp. 8–9), Tullock rehearses his earlier objection regarding the explanatory power of the Austrian theory when confronted with rational expectations. This is an important and timely issue and the author could have provided a valuable service by formulating his objection in a manner that speaks to what Austrian theorists have already written on this subject. (The relevant contributions are cited in the third paragraph of this comment.) Having chosen not to do this, however, the author's discussion fails to provoke any new or interesting thoughts on the matter.

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Reply to Comment by Joseph T. Salerno

Gordon Tullock

The outstanding characteristic of the comment on which I comment is that we agree on the basic issue. My point was that the mechanism described by the Austrians would lead, not to unemployment, but to a shortage of labor and higher wages than would be justified without all of this additional capital in the market.

Professor Salerno refers to "higher prices for the services of labor and of the other relatively nonspecific inputs or 'convertible' capital goods." This is in complete accord with my view that the Austrian theory would tighten the labor market. It would increase bankruptcies and suicides by brokers, occasionally lead to incomplete factories, and cause a certain amount of transitional unemployment, particularly in the capital-goods industries, but it could not create the kind of massive unemployment we saw in 1929–33, 1937, or the only depression that he mentions, 1980–82.[1] Massive unemployment is what people mainly complain about with respect to depressions and, indeed, is usually regarded as the principle indicator of the depression. Ignoring it seems odd.

Apparently the Austrians use the word *depression* for something other than what ordinary people use it for. My critic says the business cycle is "a recurring qualitative sequence of abstract economic phenomena that can only be detected in the historical data by the application of theory." Thus, the word *depression* when used by the Austrians has a unique meaning. There is no reason why, of course, the Austrians should not use a special definition of a word, but they really should warn us.

Professor Salerno seems to be denouncing me for employing the word *depression* in the ordinary meaning rather than in the specialized Austrian usage. I regret to say that I must use it in this form because, to put it bluntly, I do not know the specialized Austrian meaning. The standard meaning of the word *depression* is a situation in which general conditions are very bad and, most importantly, there is very high unemployment.

Possibly we can compose our differences by agreeing that

the Austrian theory of depressions does not help understanding what the ordinary citizen thinks of as depressions. It explains the Austrian-style "depression," which is (as Salerno quotes Mises) a "wavy outline of a cycle in the tangled confusion of events."

But, judging by Salerno's article, apparently there is at least one case in which the Austrian "depression" and the depression in its usual meaning coincide: the 1980–82 U.S. depression. Salerno and I agree that it was caused proximately by the Volcker Fed disinflating the economy.[2] Both of us would also agree that the previous inflation motivated Volcker to disinflate. I do not know whether he would agree with me that President Carter probably would have had a better chance of winning the 1980 election if this decision had not been made. Of course, not having had a previous inflation would also have been politically helpful.

I think that the decision to stop the inflation was politically rather than economically motivated. That seems to be my commentator's view also. Salerno refers to "highly unpopular double-digit inflation levels." There was no economic crisis in 1979 that required immediate action. Indeed, many countries have for long periods of time maintained rates of inflation that high or higher. Italy, of course, is a flourishing economy that has been operating with inflation rates like the United States experienced during the Carter years for quite a long time now.

Apparently Professor Salerno somehow feels that the malinvestment, after first increasing the demand for labor, puts the society in a situation where so much labor cannot be employed. This, in turn, seems to depend on a rather odd pattern of investment during the boom. There would not be more McDonald's going up. Instead there would be more research and capital investment in plants for making McDonald's eventually. Surely this is false. If the interest rate has been forced down and businessmen make the Austrian mistake of not realizing this is temporary,[3] the rate of growth of the capital-producing industry presumably would be higher than the rate of growth of the fixed-capital-using industries like McDonald's. Both should, however, grow. To quote a phrase much used in another connection: "A rising tide lifts all boats." The ratio of capital to labor in the consumer-goods industries would be higher.

In the original article, I used the analogy of a government that used tax money to subsidize investment and then suddenly stopped. I think this policy would be unwise. I do not think it would cause more than a little transitional unemployment,

particularly in the capital-goods industry. It would be hard on the capitalist who had half-completed factories, but the additional capital would actually raise wages.

The Austrians and I agree on two things: neither of us likes inflation and neither likes depressions. Indeed, for the 1980–82 depression, both of us are monetarists and believe lowering the derivative of the money supply was the proximate cause. Historically, the lowering of the derivative of the money supply has not infrequently occurred as stabilization after a period of inflation. It has, however, on occasion occurred without such inflation and on other occasions after inflation that was not caused by the government. It should be kept in mind that history's first inflation occurred during the reign of Alexander the Great and was a gold inflation.[4]

The basic flaw in the Austrian's line of reasoning as I see it is the desire to argue that the inflation that they object to is the actual cause of the subsequent contraction. In a way, it becomes a moral tale. The wickedness of inflation carries a punishment, albeit the punishment falls more heavily on private citizens than on the government that caused it.

I would not deny that inflation is "wicked," but its main costs are the reductions in efficiency of the economy while the inflation is going on. It is possible to get out of an inflation without a depression. In fact, the more severe the inflation, the easier. It is also possible to have the reduction in the first derivative of the money supply without a preexisting inflation. It can go from zero to a negative number. Indeed, I would say that the 1929–33 experience was an example although I know that Rothbard argues that the 1920s was an inflationary period.

Depressions have been caused by many things. The termination of an inflation can cause a depression, but contraction of the money supply after a period of stability is at least equally dangerous. Frequently there are sins, either of omission or commission by governments, that either cause or aggravate depressions. Inflation is a "sin" that in the present-day world is normally the fault of government. It is inefficient, but its only connection with depressions is that incompetent governments may cause a depression while ineptly trying to stop it.

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[1] I follow the usual convention of using the term *depression* for only the down side of the trough.

[2] This does not prove that Volcker is a monetarist.

[3] Salerno does not answer this particular nit, but simply suggests I do wide reading.

[4] Alexander spent the Persian emperor's gold reserve.

Comment on Professor Timberlake's Squared Rule for the Equilibrium Value for the Marginal Utility of Money

William Barnett II

In both volume 1[1] and in volume 2[2] of *The Review of Austrian Economics*, Professor Timberlake states his "squared" rule for the equilibrium value of the marginal utility of money, to wit:

$$MU_m = MU_c / P^2_c ,$$

where:

> MU_m is the marginal utility of money,
> MU_C is the marginal utility of the "composite good"[3], and
> P_c is the price of the composite good.[4]

This rule is based on the neoclassical theory of the consumer. Now, even if we ignore the insurmountable analytical problems concerning the concepts of the marginal utility of a composite good, and accept the analysis on its own terms (i.e., using the neoclassical analytical apparatuses of comparative statistics/equilibrium analysis), Professor Timberlake's rule is erroneous. That is, even if the concepts of a composite good and its marginal utility are accepted, his formulation remains a faulty application of neoclassical comparative statics/equilibrium analysis. Thus I shall deal with it on its own terms.

According to the neoclassical theory of the consumer, each consumer is assumed to maximize a utility function subject to a budget constraint. Professor Timberlake simplifies matters somewhat by considering a "typical individual."[5] Thus:

> maximize: $U[X]$ for $i = 1, \ldots n$,
> subject to: $Y_i = \Sigma P_i \cdot X_i$,

where:

$U(X_i)$ is the typical individual's utility function,
X_i is the quantity of the i-th good purchased by the typical individual,
P_i is the price of the i-th good,
Y_i is the wealth in monetary terms of the typical individual, and
n is the number of goods.

Assuming the utility function exhibits the necessary mathematical conditions in terms of continuity, differentiability, and so on, the first-order conditions for maximization are:

$$MU_i / P_i = L \text{ for } i = 1 \ldots n, \text{ and}$$

$$Y = \Sigma P_i \cdot X_i,$$

where:

MU_i is the typical consumer's marginal utility of the i-th good and L is a Lagrange multiplier.

From the first-order conditions, the following can be derived:

$$MU_1 / P_1 = MU_2/P_2 = \ldots = MU_n/P_n ,$$

or, in more useful form

$$MU_i/MU_j = P_i/P_j, \text{ for } i = 1 \ldots n, \text{ and } i \neq j.$$

That is, the (subjective) rate at which the typical individual is willing to substitute between any two goods (given by the ratio of that individual's marginal utilities of the goods) must be equal to the (objective to him) rate at which other people are offering to exchange the same two goods (given by the ratio of the prices of the goods).

In his analysis, Professor Timberlake assumes (implicitly) that the typical consumer's utility function and budget constraint may be represented as including but two goods (money and a composite good):

$$U = U (C,M) \text{ and}$$
$$Y = P_c \cdot C + P_m \cdot M$$

where:

> C is the quantity of the composite good purchased by the typical consumer, and
> M is quantity of money purchased by the typical consumer.

Thus he (implicitly) derives the maximizing conditions as:

$$MU_c/P_c = L$$

$$MU_m/P_m = L$$

$$Y = P_c \cdot C + P_m \cdot M,$$

from which he (implicitly) derives his equilibrium condition:

$$MU_c/P_c = MU_m/P_m$$

This is a legitimate neoclassical formulation provided that P_m is the nominal price of money, that is, the price of money in terms of itself, to wit: one (1). This condition is essential if the budget constraint is to be consistent. Thus, where:

> Y is in terms of dollars ($),
> P_c is in terms of dollars per unit of the composite good ($/c),
> C is in units of the composite good (c), and
> M is in dollars ($),

$$\$ = \$/c \cdot c + P_m \cdot \$ \text{ or } \$ = \$ + P_m \cdot \$.$$

It is immediately obvious that for the budget constraint to be consistent, the price of money must be dimensionless, specifically $P_m = 1$. Thus, substituting one (1) for the price of money in our budget constraint yields

$$\$ = \$ + 1 \cdot \$ \text{ or } \$ = \$ + \$,$$

in which case the dimensions of the budget constraint are consistent.

Note that Professor Timberlake's use of the reciprocal of the price of the composite good $[1/P_c]$ as the price of money, that is

$$P_m = 1/P_c = 1/(\$/c) = c/\$,$$

results in the budget constraint having the following dimensions:

$$Y = P_c \cdot C + P_m \cdot M,$$

$$\$ = \$/c \cdot c + c/\$ \cdot \$ \text{ or } \$ = \$ + c,$$

which obviously are inconsistent.[6]

Unfortunately, Professor Timberlake missed this crucial point. This failure resulted in his substitution of the reciprocal of the price of the composite good for the price of money in his equilibrium condition, yielding:

$$MU_c/P_c = MU_m/(1/P_c) \text{ or } MU_c/P^2_c = MU_m;$$

or, in more useful form,

$$MU_c/MU_m = P^2_c.$$

In this latter form, Professor Timberlake's error and its source are clear. The rate at which money and the composite good may be exchanged is given by the money price of the composite good, not by its square. It was the improper substitution of "the" real price of money (the reciprocal of the price of the composite good) for the nominal price of money in the budget constraint that caused the squared rule.

We see then that even within the framework of neo-classical analysis, Professor Timberlake's rule is untenable. In addition, from an Austrian perspective, there is an even more fundamental problem with the neoclassicists' attempted mathematization, via the use of the infinitesimal calculus, of economic analysis. In this case, it appears in the form of the unwarranted and implicit assumptions that the composite good be infinitely divisible, that the law of diminishing marginal utility not hold with respect to subdivisions (new units?) of the last unit of the composite good, and that marginal utilities be infinitely divisible, whatever that may mean.

Consider a more appropriate formulation of the neoclassical theory. All notation is as previously given. However, the utility function and budget constraint are expressed in terms of "real variables"—that is, "real income" and "real (money) balances." Real balances is, of course, the name given to the purchasing power of actual ("nominal") money balances. Since there is only one nonmoney good (the composite good), both real income and real balances must be, and are, in terms of units of the composite

good. That is, their dimensions are:

$$M/P_c = \$/(\$/c) = c \text{ and}$$

$$y = c$$

where

$$M/P_c = \text{real balances and } y = \text{real income.}$$

Thus, the utility function and budget constraint are:

$$U = U(C,M/P_c) \text{ and } y = M/P_c + C.$$

Note that the dimensions of the budget constraint are consistent.

The first-order conditions for a maximum are:

$$MU_C = L,$$

$$MU\ (M/P_c) = L, \text{ and}$$

$$y = M/P_c + C.$$

Thus

$$MU_C = MU\ (M/P_c).$$

That is, the marginal utility of the last "unit of real balances" purchased by the consumer must be equal to the marginal utility of the last unit of the composite good purchased by the consumer.

But, the problem is that units of real balances are multiples (or possibly fractions) of units of actual money balances. Thus, to use Professor Timberlake's example of a tripling of the money stock, assume the following:

1. The initial stock of money is \$100 (M = \$100),
2. The initial stock of the composite good is 500c (C = 500c), and
3. The initial price of the composite good is \$l/c, (P_c = \$1/c).

Then

$$y = \$100/(\$l/c) + 500c \text{ or } y = 600c.$$

Let the money stock triple and, in (assumed) consequence thereof, the price of the composite good do likewise.

Then:

1. Then the new stock of money is $300,
2. The stock of the composite good is unchanged, and
3. The new price of the composite good is $3/c.

Note that real income is unchanged:

$$y = \$300/(\$3/c) + 500c \text{ or } y = 600c.$$

Then, in the initial situation the marginal utility of the five-hundredth unit of C is equal to the marginal utility of the last unit of real balances, which is the amount of actual money necessary to buy a unit of the composite good. In this situation, the unit of real balances is $1. That is, the marginal utility of the five-hundredth unit of C is equal to the marginal utility of the one-hundredth dollar.

In the subsequent situation, the marginal utility of the five-hundredth unit of C is still equal to the marginal utility of the last unit of real balances. However, in this case, the unit of real balances is $3. That is, the marginal utility of the five-hundredth unit of C is equal to the marginal utility of the two-hundred-ninety-eighth through the three-hundredth dollars, *taken as a unit*. Unless the composite good is infinitely divisible, it is meaningless to speak of the marginal utility of the last unit of actual money, i.e., the three-hundredth dollar, for it will only fetch one-third of a unit of C, if such may be purchased. And, even if this is possible, the marginal utility of the three-hundredth dollar would be equal to the marginal utility of the "last third" of the five-hundredth unit of C, and not to one-third of the marginal utility of the five-hundredth unit of C. That is:

$$\text{Initial situation: } MU(100\text{th } \$) = MU(500\text{th C});$$

Subsequent situation: MU (298th, 299th, and 300th $s, as a unit) = MU (500th C).

However, this does not mean that

$$MU(300\text{th } \$) = 1/3 \cdot MU(500\text{th C}) \text{ but, rather that}$$

$$MU(300\text{th } \$) = MU(\text{last } 1/3 \text{ of } 500\text{th C}).$$

Thus, for Professor Timberlake's analysis to be correct, these latter two equations must be identical. That is:

$$\text{MU (last 1/3 of 500th C)} = 1/3 \cdot \text{MU (500th C)}.$$

And this must hold true for any possible increase or decrease in the money stock and attendant price change. But, as mentioned already, this requires that the composite good be infinitely divisible, that the law of diminishing marginal utility not hold with respect to subdivisions (new units?) of the last unit of the composite good, and that marginal utilities be infinitely divisible.

The foregoing analysis demonstrates some of the errors in the analysis leading to the squared rule. These errors are, unfortunately, typical manifestations of what is perhaps the most serious problem in monetary/business cycle/macroeconomic analysis. This problem is inappropriate aggregation, which arises out of attempts to make economic analysis mathematically tractable and to make economic data grist for the mill of statistical (i.e., econometric) analysis.

I am grateful to two anonymous referees for helpful comments.

[1] Richard H. Timberlake, Jr., "A Critique of Monetarist and Austrian Doctrines on the Utility and Value of Money," *The Review of Austrian Economics*, vol. 1 (1987), pp. 93–94.

[2] Richard H. Timberlake, Jr., "Reply to Comment by Murray N. Rothbard," *The Review of Austrian Economics*, vol. 2 (1987), pp. 189–97.

[3] Of course, except in the imaginations of some people, including many famous economists, "composite good(s)" do not exist. The attempt to create mathematically tractable models of the economy has led many to accept such fiction(s) as reasonable approximations to reality. Unfortunately, this has resulted in much confusion and misunderstanding, and in fact to the foisting of much relatively low level mathematical exercises and games as advanced theoretical economics.

[4] The system of notation used in this comment is somewhat different from Timberlake's, but the reader should have no trouble reconciling them.

[5] *The Review of Austrian Economics*, vol. 1, p. 93.

[6] If the editors of journals required economists to assign dimensions to the variables in their mathematical and statistical equations, many errors could be avoided.

Marginal Utility Equilibrium between Money and Goods: A Reply to Professor Barnett's Criticism

Richard H. Timberlake, Jr.

William Barnett has offered what he purports to be a criticism to an appendical note that accompanied my article on the marginal utility and value of money in the previous volume of *The Review of Austrian Economics*.[1] Barnett's conclusion to the first section of his comment is that the equilibrium condition between marginal utilities of goods and money relative to their prices is a "legitimate neoclassical formulation *provided that . . . the nominal price of money, i.e., the price of money in terms of itself* [is] *to wit: one (1)*. This condition is essential if the budget constraint is to be consistent." (Emphasis added. I presume that Barnett means by "consistent" "not violated") He then remarks that my use of the price of money as the reciprocal of the price of the composite good (1/P(c)) is "improper" and an "error." The fact of the matter is that Barnett's "correction" of my "error" is his reformulation and not an error of mine at all. My economy has in it commodities (R) and their prices (P_R), which specify a monetary value of real goods ($Pr \cdot R$). It also has in it a quantity of nominal money units (M) and a real price for those units of money (pm). The physical goods composing (R) have real value, and so does the nominal money (M) that exchanges them. If an exchange takes place between money and goods, the exchange itself is witness to the fact that the elements in the exchange are part of an equality. Thus, the price in terms of money that one pays for goods must be equal to the price in goods for which the other party to the exchange pays in money.

My inclusion of real money, as the theorists say, "in the budget constraint," was no error. Money in my theory is just as real as goods. If it were not, I would discard it with the rest of the waste paper.

Barnett asserts that the "price of money in terms of itself [is] one (1)," and, again, that money is "dimensionless." This

contention for a generalized analysis of money exchanging for all goods in all markets is ridiculous. My question is: one WHAT?

Let me assert that I *want* real money in my utility function because nominal money by itself is meaningless. The modest analysis I made in my appendical note was to show how changes in nominal money accompanied by corresponding changes in money prices would lead to an adjustment in the marginal utility schedule for money. Within this changing framework, the real stocks of money and goods stayed constant, so the budget constraint was not violated. In Barnett's model, money has no real value, so his equation may be "consistent" in the way he has set it up, but it is also meaningless. Since when does a money-using economy have no real money in it, except during the final gasp of a hyperinflation?

Barnett's "correct" mathematics but flawed economics appears midway through his comment. He states that my budget constraint has the following dimension (I use his notation with brackets added for clarification):

$$\begin{gathered} Y = [P_c \cdot c] + [P_m \cdot M], \\ \$ = [\$/c \cdot c] + [c/S \cdot \$], \text{ or} \\ \$ = \$ + c. \end{gathered}$$

Since \$ cannot equal \$ + C, "my" budget constraint is inconsistent.

Barnett's error here is that he has not included the services of real money-wealth in the original budget constraint. His *Y* is the real income of the composite good *without money*. Real money, it is true, is a real capital stock—wealth; in an "income model," this wealth must be converted into an income flow. In my grammatical model, I had no trouble making such an inclusion. In fact, I discussed this matter at length in my original article, which appeared in volume 1 of *The Review of Austrian Economics*.

Barnett concludes his criticism of my squared relationship with this statement:

> In this latter form, Professor Timberlake's error and its source are clear. The rate [price] at which money and the composite good may be exchanged is given by the money price of the composite good, not by its square. It was the improper substitution of "the" real price of money (the reciprocal of the price of the composite good) for the nominal price

of money in the budget constraint that caused the squared rule.

Barnett's observation in the next-to-the-last quoted sentence is a *reductio ad absurdum*. The price of goods in terms of money, believe it or not, is given by the money price of the composite good (!) "and not by its square." My "squared" conclusion for the marginal utility of money, however, does not argue that the *price* of money in terms of goods is squared. It only argues that the *utility* of the last unit of nominal money held in equilibrium will decline as the *square* of the increase in prices, due to the fact that the quantity of money units has proportionately increased *and* that the marginal utility *schedule* of all money units has likewise fallen by this same magnitude. (The graphical expression of this change was given in the figure in my appendix.)

In his eagerness to frame my analysis in neoclassical mathematics, Barnett has violated the conditions I set forth in my model. I had economic man in equilibrium with money and goods. Then I promoted a formalized inflation by means of a specified increase in the quantity of nominal money units—the rate of inflation being in proportion to the increase in money. Throughout my analysis, the real quantity of money and its total utility remained statically constant. I therefore aimed at getting economic man into equilibrium with the nominal money units extant, but within the environmental framework of a constant real stock of money.

For Barnett to state that my "substitution of the 'real' price of money . . . for the nominal price of money" was "improper" is incorrect. It may be "improper" if one is mired down in mathematical assumptions, but it is not improper in the real world, and it most certainly is not a "substitution" in my model. Rather, it is a feature I want in the model. Nor does this inclusion violate any budget constraint. My model starts and ends with the same real quantities of money and goods. Why, indeed, would anyone hold any money if the money were only "nominal" as Barnett suggests? My analysis puts real goods and real money into the behavior function of economic man. When an economist states, as Barnett does, that the price of money is "one," or that money is a "mere numeraire" (a common observation), he has abandoned the analysis of money altogether or he has never begun. If holdings of real goods are being analyzed in terms of money, the money must be real as well as nominal.

In the interest of brevity, and because Barnett's criticism of

my marginal utility analysis is trivial and confused, I do not treat this latter part of his comment.

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[1] "Reply to Murray N. Rothbard," *The Review of Austrian Economics*, vol. 2 (1988), pp. 194–97.

Professor Caldwell on Ludwig von Mises' Methodology

J. Patrick Gunning

> He who addresses fellow men, who wants to inform and convince them, who asks questions, can proceed in this way only because he can appeal to something common to all men—namely, the logical structure of human reason.
>
> —Ludwig von Mises, *Human Action*, p. 35

Bruce Caldwell's recent writings on the Austrian school of economics (1982, chapter 6; 1984) are undoubtedly a positive contribution to economic thought. Caldwell argues correctly that

> The usual criticisms of Austrian economics . . . have thus far proven unsuccessful, primarily because they proceed by assuming the validity of a rival epistemological system (e.g., positivism or falsification), then "proving" that the Austrian system does not meet the qualifications of their presumptively true system. (1982, p. 6)

Or, more specifically, he says:

> (1) Many of the usual complaints against praxeology, so often considered to be conclusive, are anticipated and answered by Mises, and thus must be considered at this point inadequate, and (2) those that remain fail to take into account that the epistemological and methodological foundations of Austrian and neoclassical economics differ. (1982, p. 119)

These arguments carry considerable force since Caldwell is an "outsider" and is well read. He is familiar with both the most significant so-called economic methodologies and the major works in the philosophy of science and social science. Thus, he is like an informed tourist who has ventured into Austrian territory

and returned to tell of his journey. But his journey has not been superficial. By focusing on the fundamental and difficult works of Mises, he is able to observe the best of a consistently Austrian position.

Although Caldwell is sympathetic with what he takes to be Mises' position, he does not go so far as to claim that Mises has been right all along and that other methodologies are wrong. His moderate conclusion is that the door is open for further debate and that such a debate may eventually succeed in resolving some of the contradictions or differences among alternative methodologies (1984, p. 373).

In effect, Caldwell claims that the rivalry between Austrian and alternative methodologies is far from over and he expresses the hope that the outcome of a future debate and cross-fertilization (which will undoubtedly be stimulated by his work) will be greater understanding. Although he keeps an open mind on the subject, his book advocates what he calls methodological pluralism (1982, chapter 13). He does not expect that Austrian methodology will be the "victor."

In both his book and his articles, Caldwell competently shows that Mises anticipated and answered the "external" criticisms of his a priorism. But then, as if to announce that he was able to go beyond Mises, Caldwell offers what he calls internal criticisms—i.e., criticisms that even Austrians (including presumably Mises himself, if he were alive) might accept.

I believe that Caldwell fails to uncover the essence of the Misesian system. As a result, his representation of it, although deeper than that of most of its critics, nevertheless fails to communicate its most fundamental strengths. That Caldwell does not communicate the strengths of Misesian economics is evidenced by the internal criticisms he suggests.

The first section of this article describes Misesian methodology. In the next, three of Caldwell's criticisms are discussed and refuted on the basis of text references. The final section briefly discusses the general problem of comparing Misesian methodology with alternatives.

Misesian Methodology

One cannot successfully evaluate criticisms of "Mises' methodology" without a more complete understanding of *Human Action* than Caldwell provides. It is easy to understand why Caldwell would have chosen not to present the argument in

detail. Most economists are not interested in meticulous philosophical argumentation. Unfortunately, without giving the reader an idea of that argumentation, one can neither adequately present Misesian economics nor respond to Caldwell's so-called internal criticisms.[1] Thus, at the expense of taxing the reader's patience, I shall try in this part to summarize the relevant aspects of Misesian methodology.

The Relations in the Logical Structure of the Mind

The foundation of Misesian economic theory is contained in Mises' discussion of the a priori and can be found in *Human Action*. He discusses the a priori in a section entitled "The Formal and Aprioristic Character of Praxeology," where he introduces what he calls "the problem of the a priori." This problem, he says, "refers to the essential and necessary character of the logical structure of the human mind" (1966, p. 34). Every attempt to prove the presence of the relations in this logical structure "must presuppose their validity. It is impossible to explain them to a being who would not possess them on his own account" (1966, p. 34). Mises says that all (normal, adult) human beings possess these relations: "Everybody in his daily behavior again and again bears witness to the immutability and universality of the categories of thought and action" (1966, p. 35). Mises invents the term *methodological apriorism* to refer to this set of statements: "The fact that man does not have the creative power to imagine categories at variance with the fundamental logical relations and with the principles of causality and teleology enjoins upon us what may be called *methodological apriorism*" (p. 35).

What then are the relations that comprise the "essential and necessary character of the logical structure of the human mind" (p. 34)? Mises derives them from his definition of human action. In his section entitled "The Prerequisites of Human Action," he cites three such prerequisites: (1) man's "eagerness to substitute a more satisfactory state of affairs for a less satisfactory [state]," (2) his imagination of "conditions which suit him better," and (3) "the expectation that purposeful behavior has the power to remove or at least alleviate the felt uneasiness" (pp. 13–14).

It is tempting to refer to these statements as Mises' beliefs. But the word belief carries a relativistic connotation that reflects neither Mises' thoughts nor the philosophical tradition from which they stem.[2] The tradition is fundamentally Cartesian.

For Mises, the statement “I am human, therefore I act” carries a degree of forcefulness that is comparable to the statement “I think, therefore I am.” One cannot imagine himself being human without implicitly assuming that he acts just as one cannot imagine himself thinking without implicitly assuming that he exists.

Upon reading Mises’ description of these prerequisites, an outsider is inclined to think that it is a description of the subjects of his studies—in economics, a description of the economic actors, perhaps with the same status as *homo economicus*. This is not wrong. But it is incomplete. More fundamentally, the description is intended to apply to all normal human beings, including the economist and the comparer of methodologies.[3] Because of this, it can be regarded as an appeal to the intuition of the reader. Mises asks the reader whether he would deny that he possesses the three prerequisites. If the reader honestly denies that he possesses them, Mises would presumably have nothing to say to him. As previously quoted, “It is impossible to explain [the logical relations] to a being who [does] not possess them on his own account.” The reader could not be called a human actor.

Mises deduces (defines) the relations in the logical structure of the human mind from the previously named three prerequisites of human action. First, he deduces (defines) the idea of *causality*. The human actor must “know” what it means for his action to cause a state of affairs to be different from what it otherwise would be:

> Acting requires and presupposes the category of causality. Only a man who sees the world in the light of causality is fitted to act. In this sense we may say that causality is a category of action. (1966, p. 22)

The concept of causality is not a simple one. In particular, there is the issue of infinite regress. If A is caused by B, what then causes B? One is sometimes inclined to approach this problem by invoking teleology—the idea that there is a first cause. These two ideas, causality and teleology, coexist in the mind, says Mises. He says that both causality and teleology are deducible from the prerequisites of action (pp. 22–25).

Also deducible from the prerequisites of action are the concepts of time and uncertainty. First, consider time.

> The notion of change implies the notion of a

> temporal sequence. . . . The concepts of change and of time are inseparably linked together. . . . Human reason is . . . incapable of conceiving the ideas of timeless existence and of timeless action. (p. 99)

Now consider uncertainty.

> The uncertainty of the future is already implied in the very notion of action. . . . [Action and uncertainty are] two different modes of establishing one thing. . . . If man knew the future, he would not have to choose and would not act. (p. 105)

Praxeology

Economics, to Mises, means economic theory. Economic theory, in turn, is said to be a branch of what Mises calls *praxeology*. Thus, it is sensible to define praxeology before defining economics. Praxeology is a theory—a set of deductions based upon assumptions. Praxeology provides a framework that is used to help one explain historical events. (Since all known human events are past events, the term historical can be dropped without any loss in meaning.)[4]

Any historical event may be partly the consequence of nonhuman factors, such as the particular physical environment. It may also be partly the consequence of genetic evolution, the constraints of law, and nonpurposeful behavior. From the perspective of praxeology, however, it is most important that historical events are partly the consequence of human action. Because of this, there is a crucial distinction in Mises' conception between observing a historical event and understanding the event.

To observe a historical event, one merely records "facts" in a way that can presumably be recalled and perhaps communicated to others. To understand a historical event, by Mises' definition, one must identify the human beings whose actions in some way helped to cause the facts that are observed. Then he must insert his hypotheses about their actions (i.e., their ends and means) into a theory of interaction. The important point is that he must have a theory of the interactions of human beings, who possess the a priori categories.

It follows that any comprehensive description of particular historical events must be made partly in terms of a language (or

theory) for communicating hypotheses that involve human action (the three prerequisites and the concepts Mises calls causality, teleology, time, and uncertainty). The theory that Mises develops to help describe (i.e., understand) the specifically human character of historical events is praxeology.[5]

Economic Theory

Economic theory, as defined by Mises, is one part, or branch, of praxeology. It is designed specifically to enable one to understand human action conducted on the basis of monetary calculation. Everyday economic action is entangled with action not conducted on the basis of monetary calculation. Moreover, human action itself is entangled with nonpurposeful behavior. The physical environment and law may often lead to nonpurposeful behavior. Accordingly, economic theory, by its nature, does not entail the construction of images of an entire historical event. It commands one's attention to the economic aspects of historical events, i.e., those aspects that are caused by choices made on the basis of monetary calculation.

As theory, economics is a deductive system.[6] Because it is about the distinctly human (i.e., logical or rational) part of human actors, its deductions are made on the basis of the a priori assumptions stated previously. To construct an economic theory, one combines the a priori assumptions with other, *subsidiary* assumptions. Subsidiary assumptions include the assumptions that groups of individuals use money, that they get disutility from labor, that they use capital, and especially that particular types of entrepreneurship are present. Some subsidiary assumptions are made in order to simplify by abstraction, since economic interaction is so complex. An example is the division of individuals into roles, such as the household, the business firm, and the banker.

In economic theory, subsidiary and simplifying assumptions are separate from the a priori "assumptions" that correspond to the a priori categories. To Mises, the a priori assumptions are necessary because they set apart the distinct phenomena of praxeology and because they are undeniable. Economists, as Mises defines them, must use these assumptions. Since economic subjects are human actors, their actions must manifest the assumptions.

How can one tell whether an assumption is a priori or subsidiary? The answer, according to Mises, is that it is

impossible to imagine an alternative to an a priori assumption. For example, with respect to a priori assumptions, Mises says: "[As human beings ourselves, we] cannot think of a world without causality and teleology" (1966, p. 35). Subsidiary assumptions are different: "The disutility of labor is not of a categorial and aprioristic character. We can without contradiction think of a world in which labor does not cause uneasiness, and we can depict the state of affairs prevailing in such a world" (p. 65).

As previously mentioned, the a priori assumptions may give the appearance of being an alternative to *homo economicus*. Thus, it may seem reasonable to compare the "a priori being" with *homo economicus*. To Mises, however, the a priori being is the universal being of which *homo economicus* is one manifestation. The a priori being may, in certain circumstances, act identically to *homo economicus*. But the a priori being also has the option not to act like *homo economicus*. Indeed, all thinkable options must be regarded as being available to the a priori being. *Homo economicus*, however, could never become an a priori being. *Homo economicus* must always maximize his financial wealth in situations specified by the economist. The a priori being can create his own situations. He can even become an economist.

To put this still differently, *homo economicus* is a puppet or robot who is programmed by the economist. The a priori being is his own controller. It is the a priori being who encompasses the humanness in the human being. Economic models must be peopled by individuals who are programmed by the modelbuilder.[7] They cannot be peopled by a priori beings.

The usefulness of models lies in the fact that they enable the modelbuilder to contrast (1) what he can, through reflection, come to know about the nature of the a priori being with (2) the puppet or robot that he employs in his model. In this way, he can isolate the inventive, creative, programming, controlling, alert aspects of human nature. In the context of economics, this means that by constructing models of an economy, he can set apart the characteristics of his a priori beings. He can also learn to attach more realistic characteristics to his roles. He does this by making reference to entrepreneurship and other catallactic functions.[8]

Discussion

It has been shown that Mises defines the human being in terms of a priori categories derived from the three prerequisites of action.

He even goes so far as to suggest that persons who do not possess such categories are not normal human beings. It must now be asked whether there is any justification for defining the normal human being as Mises does.

It seems to the author that the possible viewpoints on this matter can be divided into three categories that would be progressively more agreeable with Mises. The first viewpoint is that Mises is making a personal judgment about what constitutes humanness. This viewpoint holds that Mises is entitled to his judgment. But there is no reason why another judgment might not be more acceptable. If some other "economist" chooses to define a human being as compassionate, empathetic, status-seeking, driven by a need for companionship, or whatever, his choice is just as legitimate as that of Mises. Similarly, an economics based on the other economist's definition of humanness ought to be every bit as acceptable as one based on the concept of human action, although it may be unfamiliar and novel.

A second viewpoint is a modified version of the first. It is that Mises' concept of human action captures part of what it means to be human, but it does not capture all of it. It should be supplemented by an economic theory that recognizes compassion, empathy, and so on. In this view, Mises' assertion about humanness is at best limited. One should be particularly careful to limit discussions of policy by emphasizing that they only apply to the imaginary world in which the only objective of human beings is to remove uneasiness in ways that can be accomplished by means of markets.

A third viewpoint represents the conviction that Mises was able to isolate a particular set of phenomena that are both important and capable of being analyzed by the methods he suggested. His definition of economics is immanently sensible because it separates this realm from other realms. Deductions in an economic theory so defined cannot yield information about what is best for human beings. But, to the extent that human action (as defined by Mises) is present, the deductions can give one valuable insights about some aspects of everyday interaction. To completely describe interaction, such deductions should be supplemented by what Mises would presumably call nonpraxeological theories. To describe everyday events, one would also have to use knowledge of the natural sciences and knowledge of how coercion is used.

Caldwell's Misinterpretations

Given that the interpretation of Mises presented in this article is correct, it is not difficult to show that the three "internal criticisms" offered by Caldwell were answered by Mises. Each is discussed in turn.

Nonpurposeful Action

The first of Caldwell's suggestions is based on the idea that there can be nonpurposeful action. Caldwell cites the possibility, also suggested by Nozick (1977), that a type of nonpurposeful action is operantly conditioned behavior. Caldwell comments: "An uninformed observer would interpret such behavior as purposeful, but because it is conditioned behavior it is in fact non-volitional and hence non-purposeful." Then he says that this may raise a problem for Misesian methodology because Mises "claims" that all human action is purposeful (1984, p. 375).

The answer to this is that Mises does not claim that all human behavior is purposeful. What Mises says is that human action is by definition purposeful. Caldwell confuses behavior with action and a claim with an a priori assumption. Mises says that a theory of human action (praxeology) is a necessary part of any explanation of human behavior. But it is not the only part. A theory of nonpurposeful behavior also is a necessary part of a complete explanation of human behavior. Mises did not conceive of economic theory as a complete theory relating to human behavior. Thus, this particular Nozick criticism is beside the point.[9]

It can be said that Mises claims that purposeful behavior exists and that it is the distinct characteristic of the human being. But the word *claim* seems to greatly understate Mises' view. Mises says that he, the reader, and all normal human beings can recognize the purposefulness of others in the same species by recognizing the purposefulness in themselves. It is difficult to see how such a "claim" could be contradicted.

It is odd that Caldwell considers operantly conditioned behavior a source of possible internal criticism, since he clearly recognizes "that in Mises's system all action is rational because all action is by definition purposeful" (1982, p. 119). The only sensible explanation is that Caldwell failed to realize the difference between a theory of action, as Mises defined it, and a theory of all behavior. It is legitimate to criticize Mises for not

being interested in nonrational (nonpurposeful) behavior. One might even argue on ethical grounds that economists should be more concerned with nonrational behavior than with rational behavior. But such a criticism would not be a criticism of Mises' methodology of economics. It would be a criticism of the scope that is encompassed by Mises' definition of economics.[10]

Alternative a Priori Assumptions

Caldwell's second suggestion is that there may be alternative a priori assumptions. This possibility is most extensively pursued in his 1982 book, (pp. 130–33), where he contrasts Mises' methodological apriorism with what he calls the apriorism of Hollis and Nell (1975). Hollis and Nell assert that the "reproduction of the system . . . is primary." If I understand Hollis and Nell correctly, they argue that production and reproduction is necessary because otherwise there would be no "system" to discuss.

It is easy to see that Misesian human action implies production in the sense that action itself means production (choice) of a state that is less unsatisfactory to the actor than an alternative state. The Hollis and Nell assumption does not imply human action, however. It applies equally to nonhuman life and to human life. Animals and plants produce and reproduce "systems" but we cannot use our self-understanding and intuition to determine with comparable confidence that they can construct images of the behavior or actions of other animals and plants. In any event, we can be fairly certain that animals and plants do not have methodological thoughts or engage in methodological discussions.

It is possible that Hollis and Nell would separate specifically human "systems" of production and reproduction from nonhuman systems. If so, they may identify a specific category of behavior that would correspond to Mises' concept of action. But there is nothing in their alleged a priori assumption to suggest that they would do this. Thus, one might expect that a theory built on the Hollis and Nell assumption would enable the theorybuilders to capture some aspects of all life. However, there would be no reason to expect such a theory to have anything perceptive to say about economic interaction in the Misesian sense.

If there are indeed a priori assumptions that can be considered as alternatives to those made by Mises, they must

apply to the philosopher, the economist, and the subjects studied by the economist. And, if the assumptions are to deal with the same subject matter that Mises was concerned with, they must relate to human thinking, choosing, and planning.

Theory versus Hypothesis

A third suggestion relates to hypothesis testing. Caldwell says that "Mises' view that the predictions which emerge from praxeology cannot and should not be used to test the theory directly conflicts with the standard approach" (1984, p. 371). This statement does not adequately represent the "conflict." Praxeology does not generate predictions. Praxeological and economic models, which are based on a priori assumptions and subsidiary assumptions, yield deductions. If subsidiary and simplifying economic assumptions are realistic, the deductions will represent a "real" economic phenomenon, in Mises' sense. But whether an observer of everyday life can separate that "real" economic phenomenon in Mises' sense from the noneconomic phenomena with which the economic phenomenon is invariably entangled depends upon his knowledge of the noneconomic phenomena.

The conflict is not over whether predictions can or should be tested. One conflict is over whether an economic deduction in Mises' sense is the same as the hypotheses that are tested by "the standard approach." A second conflict is over whether testing an economic deduction can be adequately accomplished when the tester lacks knowledge about noneconomic phenomena and when he cannot directly observe the fundamental economic phenomena.

Thus Caldwell's conclusion that "Surely, one way to discover whether a mistake in reasoning has been made is to see if the chain of logic leads to predictions that are disconfirmed by evidence" (1984, p. 371) seems misplaced and confusing. Misesian economic theory, by itself, does not necessarily yield predictions about the phenomena of everyday life. The only way to use Misesian economic theory to generate such predictions is to employ subsidiary assumptions that reflect the "true" preferences, the environmental conditions (i.e., natural science, law, culture, the capital structure, and other resources), and individuals' knowledge of these conditions.

This is not to deny the significance of fact gathering. Rather, it is to put the task of fact gathering in a separate category from

the task of constructing theory. Both are necessary if one wishes to describe historical events or to make predictions in everyday life. But the idea of testing the deductions in a model designed specifically to help one identify the characteristics of human beings that have not or cannot be modeled (e.g., entrepreneurship) is quite a bit different from what most economists have in mind when they speak of testing a hypothesis.[11][12]

On the Problem of Comparing Methodologies

In an important sense, Caldwell's work was exploratory. His "internal criticisms" were apparently not meant to denigrate Misesian economics. On the contrary, in his book at least, he issued a "challenge to the Austrians to come up with some means by which their system could be compared with its rivals" (1982, pp. 134–35). Within the context of this challenge, it seems appropriate to devote the final section to the issue of how the various methodologies could be compared.

Caldwell set a difficult task for himself when he sought to compare the "methodology" of Mises with positivism and falsificationism. A crucial part of his comparison should have been to determine whether these methodologies were focused on the same phenomena. Had he done this, I have no doubt that he would have discovered that Mises restricted the definition of economic phenomena to the realm of the purely purposeful and subjective. Mises did not by any means deny the significance of nonpurposeful and objective phenomena. He simply did not regard them as directly relevant to the problem of constructing a pure logic of human action.

Mises presented what, from the perspective of positivism or falsificationism, may be considered a rival definition of the subject matter of economics. In his economic theory, he was not interested in most of the phenomena that modern positivists or falsificationists (i.e., most modern economists) would label economic. His concern was with the choices that cause wants to get satisfied in a capitalist economy. In other words, he was concerned with "entrepreneurial" choices and their consequences and with other factors that individuals regard as instrumental or relevant in the satisfaction of wants.

Positivists or falsificationists are interested at least partly in entrepreneurship and these other factors. But they are also interested in such items as the rate of statistical unemployment,

the purchasing power of money, the size of the GNP, the magnitude of investment spending, the market interest rate, and other statistical figures.

It is true that these numbers are partly caused by entrepreneurship and that they are related to the other factors. But the numbers also reflect the conditions of the natural environment, prevailing law, and the particular preferences, knowledge, and habits that have been transmitted through cultural processes. Because Mises did not regard these latter conditions as economic, the statistics were not so relevant to him. Since Misesian economics focuses on entrepreneurial choices, the presence of which could not often be discovered by means of statistical analysis, Mises regarded positivism and falsificationism as largely irrelevant to economics.[13]

A proper comparison of Misesian methodology with that of positivism or falsificationism requires the comparer to designate the phenomena with respect to which the methodologies are being compared. Misesian economics is mainly concerned with entrepreneurship and its consequences. Modern positivist or falsificationist economics is defined more broadly; yet it includes entrepreneurship and its consequences. It follows that a proper comparison of the two should be based only on the common phenomena—entrepreneurship and its consequences.

This is the comparison that Mises typically made. Unfortunately in the author's view, Mises' terminology was not suitable to the ideas he wished to convey. As a result, too few readers of *Human Action* recognized that his provocative criticisms of the use of positivism, scientism, statistics, and mathematics were based on his view that economics should be defined differently than it was coming to be defined in the mainstream literature and in the universities. It is hoped that this article will succeed in redirecting the interested reader's attention to the definition of economics that Mises had in mind.[14]

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[1] That a more complete presentation is necessary is apparently substantiated by the more recent criticisms of Caldwell that were published in *History of Political Economy*. In the first, Abraham Hirsch mainly criticizes Caldwell for not providing a more detailed justification for his sympathy with Mises. According to Hirsch, Caldwell should have dealt with what most readers, Austrian or not, would regard as contradictions in *Human Action*. Most importantly, says Hirsch, he should have explained how Mises was able to reach such sweeping normative conclusions about capitalism on the basis of his theory of human action, which ignores “nonrational” behavior.

It would not have been necessary for Caldwell to discuss all of *Human Action* to avoid this criticism. He would only have had to recognize that the issue of methodology is sufficiently divorced from that of application that it is possible to elucidate and evaluate the foundation of praxeology, as well as Mises’ justifications for his methodological apriorism, without referring

at all to what Mises thinks or claims such a method implies for the "good of individuals" under capitalism. One can justifiably criticize Mises' own economic reasoning as well as his apparently normative conclusions without ever mentioning or understanding his methodology.

In the second criticism, Eugene Rotwein criticizes Caldwell for not providing sufficient support for methodological apriorism to justify Caldwell's conclusion that Mises adequately defended it against the standard criticisms. Whether Caldwell did or did not provide sufficient support, it is evident that Rotwein himself did not come to understand Mises' arguments either directly by reading Mises' text or indirectly by reading Caldwell. Of particular significance is Rotwein's contention that "the general empirical spirit of science operates to check the growth of dogma, and patently so as compared with apriorism, which is the equivalent of a claim to the possession of a pipeline to the Deity" (p. 671). Only someone who had not come to understand the history of subjectivism and its role in the emergence of Mises' apriorism could reach such a conclusion. It is precisely the fact that "the general empirical spirit of science" (which itself is a manifestation of subjectivism) does not function to check the growth of dogma in the science of human action that compels the scientist to employ a different check—that of subjectivism. However, the employment of subjectivism itself entails the use of a priori assumptions about the nature of subjects and the scientists. The greatest contribution of Mises to social-science methodology was his recognition and elucidation of this.

[2] An interesting paper regarding philosophical foundations of Austrian economics has been written by Barry Smith (1986). This should be compared with Mises' *Notes and Recollections* (1978).

[3] For the definition of *normal*, see Mises (1966, p. 14).

[4] The word *explain* encompasses (1) personal interpretation and (2) communication of one's personal interpretation to others.

[5] The word *understand*, as used here, is derived from the German concept of *verstehen*. Mises contrasts it with concept formation. See Mises (1981, chapter 3; 1966, pp. 47–59). Also see Lachmann (1971, chapter 1).

[6] *Economics* and *economic theory* are synonymous. The synonym for *applied economics* is the economic understanding of history.

[7] Mises calls a model an imaginary construction in order

to emphasize the point that a model in economics is not intended to be a small representation of a larger reality, like a scale model of an industrial park.

[8] Praxeology employs a priori reasoning (Mises, 1966, p. 32). In discussing a prior reasoning, Mises says:

> The significant task of aprioristic reasoning is on the one hand to bring into relief all that is implied in the categories, concepts, and premises and, on the other hand, to show what they do not imply. It is its vocation to render manifest and obvious what was hidden and unknown before. (1966, p. 38)

Also see Mises (1966, pp. 251–55).

[9] For a thorough, point-by-point critique of Nozick's Interpretation of Mises, see W. Block, "On Robert Nozick's 'On Austrian Methodology'" (pp. 397–444).

[10] Caldwell also refers in passing to Nozick's view that methodological individualism as practiced by "Austrians" constitutes reductionism. Nozick says: "The methodological individualist claims that all true theories of social science are *reducible* to theories of individual human action, plus boundary conditions specifying the conditions under which persons act" (1977, p. 353). He cites Hayek as holding this view. The problem with this statement is the potential ambiguity of the word *theory*. From the context, Nozick really means *hypotheses*. Nozick is not concerned with the problem of building a many-person model from the separate models of individuals (i.e., theories). Instead, he is concerned with the process of interpreting many-person interaction in terms of hypotheses about individuals. The point of methodological individualism in theory has nothing to do with whether actual interaction can be described solely in terms of individuals. Instead, as used by Mises, it deals with the question of whether a model of many-person interaction that is constructed by the economist, who is concerned only with human action, is logical. If it is logical, it must be reducible. If it is not reducible, it is not logical and must be jettisoned. Nozick apparently did not realize the limited scope of praxeology and economics, as Mises defined them.

[11] Some of Caldwell's confusion might have been avoided by a more discriminating use of the word *theory*. The practice of equating theory with hypothesis has little to recommend it.

[12] For a more complete discussion of Mises' distinction between theory and its application, see Mises' *Theory and History*

(1969).

[13] Mises did not regard the statistics as irrelevant in general. Indeed, to explain any particular historical event, one should use knowledge of all types, including knowledge of statistics. “In dealing with a historical problem the historian makes use of all the knowledge provided by logic, mathematics, the natural sciences, and especially by praxeology” (1966, p. 49).

[14] It is not surprising that Caldwell himself did not recognize the difference in subject matter. *Human Action* is tough going for individuals who are trained in the positivism and falsificationism that has come to be the hallmark of reputable U.S. universities. It is significant to me, however, that the various “Austrians” listed as having commented in some way on Caldwell’s paper apparently did not identify the difference in subject matter (1984, p. 377).

In Defense of Extreme Rationalism: Thoughts on Donald McCloskey's *The Rhetoric of Economics*

Hans-Hermann Hoppe

The Relativism of Hermeneutics and Rhetoric and the Claims of Rationalism

For some time, the philosophy establishment has been under attack by the likes of Paul Feyerabend, Richard Rorty, Hans G. Gadamer, and Jacques Derrida. A movement of sorts that has already won over numerous members of the philosophy profession is steadily gaining ground, not only in such soft fields as literary criticism and sociology, but even in the hard natural sciences. With Donald McCloskey's *The Rhetoric of Economics* (Madison: University of Wisconsin Press, 1985), this movement is ready to invade economics. Yet, it is not only the orthodox, neoclassical Chicago economist McCloskey who preaches the new dispensation; there is also G.L.S. Shackle, and at the fringes of the Austrian school of economics are Ludwig Lachmann and the George Mason University hermeneuticians who lend support to the new creed.

However, this creed is not entirely new. It is the ancient tune of skepticism and nihilism, of epistemological and ethical relativism that is sung here in ever-changing, modern voices. Richard Rorty, one of the outstanding champions of the creed, has presented it with admirable frankness in his *Philosophy and the Mirror of Nature*.[1] The opponent of the new old movement is *rationalism* and, in particular, *epistemology* as a product of rationalism. Rationalism, writes Rorty:

> is a desire for constraint—a desire to find "foundations" to which one might cling, frameworks beyond which one must not stray, objects which impose themselves, representations,

> which cannot be gainsaid. (p. 315)
>
> The dominating notion of epistemology is that to be rational, to be fully human, to do what we ought, we need to be able to find agreement with other human beings. To construct an epistemology is to find the maximum amount of common ground with others. The assumption that an epistemology can be constructed is the assumption that such common ground exists. (p. 326)

However, Rorty claims that no such common ground exists: hence the false idol of rationalism must fall and a "relativist" position termed hermeneutics must be adopted.

> Hermeneutics sees the relations between various discourses as those of strands in a possible conversation, a conversation which presupposes no disciplinary matrix which unites the speakers, but where the hope of agreement is never lost so long as the conversation lasts. This hope is not a hope for the discovery of antecedently existing common ground, but *simply* hope for agreement, or, at least, exciting and fruitful disagreement. Epistemology sees the hope of agreement as a token of the existence of common ground which, perhaps unbeknown to the speakers, unites them in common rationality. For hermeneutics, to be rational is to be willing to refrain from epistemology—from thinking that there is a special set of terms in which all contributions to the conversation should be put—and to be willing to pick up the jargon of the interlocutor rather than translating it into one's own. For epistemology, to be rational is to find the proper set of terms into which all contributions should be translated if agreement is to become possible. For epistemology, conversation is implicit inquiry. For hermeneutics, inquiry is routine conversation. (p. 318)

What Rorty terms hermeneutics, McCloskey calls rhetoric. In *The Rhetoric of Economics*, he attempts to persuade us that in economics, just as in any other language game that we might play, rationalist and epistemological claims of providing a

common ground that makes agreement-on-something-objectively-true possible are out of place. Economics, too, is merely rhetoric. It is another contribution to the conversation of mankind, another attempt to keep a routine going. It exists not for the sake of inquiring about what is true, but for its own sake; not in order to convince anyone of anything based on objective standards, but in the absence of any such standards, simply in order to be persuasive and persuade for persuasion's sake.

> Rhetoric is the art of speaking. More broadly it is the study of how people persuade. (p. 29)

> Rhetoric . . . is the box of tools for persuasion taken together, available to persuaders good and bad. (pp. 37–38)

> [Economics should learn its lesson from literary criticism.] Literary criticism does not merely pass judgements of good or bad; in its more recent forms the question seems hardly to arise. Chiefly it is concerned with making readers see how poets and novelists accomplish their result. An economic criticism . . . is not a way of passing judgement on economics. It is a way of showing how it accomplishes its result. It applies the devices of literary criticism to the literature of economics. (p. XIX)

> [The categories truth and falsehood play no role in this endeavor. Scholars] pursue other things, but things that have only an incidental relation with truth. They do so not because they are inferior to philosophers in moral fiber but because they are human. Truth-pursuing is a poor theory of human motivation and non-operational as a moral imperative. The human scientists pursue persuasiveness, prettiness, the resolution of puzzlement, the conquest of recalcitrant details, the feeling of a job well done, and the honor and income of office. . . . The very idea of Truth—with a capital T, something beyond what is merely persuasive to all concerned—is a fifth wheel. . . . If we decide that the quantity theory of money or the marginal productivity theory of distribution is

> persuasive, interesting, useful, reasonable, appealing, acceptable, we do not also need to know that it is True. . . . [There] are particular arguments, good or bad. After making them, there is no point in asking a last, summarizing question: "Well, is it True?" It's whatever it is—persuasive, interesting, useful, and so forth. . . . There is no reason to search for a general quality called Truth. (p. 46–47)

> [Economics in particular, and science in general are like the arts;[2] the law of demand is persuasive or unpersuasive in exactly the same way as a Keats poem;[3] and in just the same way as there exists no methodological formula for advancing artistic expression there exists none for advancing economics. Rhetoric] believes that science advances by healthy conversation, not adherence to a methodology. . . . Life is not so easy that an economist can be made better at what he does merely by reading a book. (p. 174)

Surely, after all this one has to catch one's breath. Yet has not rationalism refuted this doctrine time and again as self-contradictory and, if taken seriously, as fatally dangerous nonsense? Books such as McCloskey's may indeed not make life better or easier. But is this not only insofar as one ignores their advice; and would not life in fact be worse if one were actually to follow it?

Consider this: after reading Rorty and McCloskey, would it not seem appropriate to ask "What, then, about their own pronouncements?" If there is nothing like truth based on common, objective ground, then all of the preceding talk can surely not claim to say anything true. In fact, it would be self-defeating to do what they seem to be doing: denying that an objective case can be made for any statement, while at the same time claiming this to be the case for their own views. In so doing, one would falsify the content of one's own statement. One cannot argue that one cannot argue.[4] Thus, in order to understand Rorty and McCloskey correctly, one must first realize that they cannot truly be saying what they seem to be saying. Nor can I here say anything claiming to be objectively so and true. No, their talk as well as mine can merely be understood as contributions to their and my entertainment.

But then, why should they or I listen and be entertained?

After all, if there is no such thing as truth and, accordingly, no objective distinction between truth-claiming propositions and any others, then we are evidently faced with a situation of all-pervasive intellectual permissiveness.[5] With every statement just another contribution to the conversation of mankind, anything at all that is said is just as good a potential candidate for my entertainment as anything else. But why bother listening to such permissive, everything-goes talk? McCloskey might reply, "Because your talk or my talk is persuasive." But that will not change much, if anything at all. For according to his doctrine, the categories "persuasive" and "unpersuasive" are not simply other names for "true" and "false." The whole point would be lost if they were. No, he is saying that something is persuasive because it has in fact persuaded; because it has resulted in agreement. To go beyond this and ask, "Well, has one been persuaded of something correct?" would be an entirely inappropriate question. As a matter of fact, regarding any such question, he would have to point out that the very problem of determining whether or not a persuasion was based on correct talk would once more have to be decided on the actual persuasion of having been correctly persuaded; hence, that he is consistent in his rejection of the idea of objective truth; that the idea of breaking out of mere talk and of grounding talk in something that is not again simply talk is fallacious; and that truth then is itself no more than the subjective belief that what one believes is objectively true.[6] But if this is his position, then his talk, persuasive or unpersuasive as it may be, can indeed be no more than mere entertainment. Nor can this statement regarding what it means to talk claim to be objectively true; it, too, can only be meant to entertain.

Hence, it seems the first appropriate question regarding such books as McCloskey's would have to be "Are we being entertained?" Without a doubt, many a reader will reply that he is and McCloskey might then think that he has indeed achieved what he intended. But did he? Or was the readers' feeling of being well entertained only due to the fact that he misinterpreted what he read and understood it as something claiming to be true, which, in fact, it was never meant to be? And would not the reader, once he had realized this, have to change his opinion? For then McCloskey's talk clearly would not fall into any different category from that of a novelist or poet. But as compared with their prose, and in direct competition with any novel or poem written for our entertainment, I submit that

McCloskey's book is merely boring and fails miserably in its objective.

Yet, can his book be even *bad* entertainment without still having to be committed indispensably to the notion of a common ground that serves as the basis of objective truth? Rationalism denies that it can. It claims that the notion of truth, of objective truth, of truth grounded in some reality outside that of language itself, is indispensable for talk of any sort, that language presupposes rationality, and hence that it is impossible to rid oneself of the notion of objective truth as long as one is capable of engaging in any language game whatsoever. For how else could we find out whether someone was in fact entertained by something, or that he was persuaded by it, that he understood or misunderstood what it was that had been said to entertain and persuade, and even further, whether there was something that meant anything at all and so could be understood, rather than merely being meaningless rustling in the wind? Clearly enough, we could not claim to know any of this unless we had a common language with commonly understood concepts such as "being persuaded" or "entertained" as well as any other term used in our talk. In fact, we could not meaningfully claim to deny all this without having to presuppose yet another set of commonly understood concepts. And just as clearly, this common ground that must be presupposed if we want to say anything meaningful at all is not simply one of free-floating sounds in harmony with each other in midair. Instead, it is the common ground of terms being used and applied cooperatively in the course of a practical affair, an interaction. And again, in making this claim, one could not possibly deny that this is so without presupposing that one in fact *could* cooperatively establish some common ground with respect to the practical application of some terms.

Language, then, is not some ethereal medium disconnected from reality, but is itself a form of action. It is an offshoot of practical cooperation and as such, via action, is inseparably connected with an objective world. Talk, whether fact or fiction, is inevitably a form of cooperation and thus presupposes a common ground of objectively defined and applied terms.[7] Not in the sense that one would always have to agree on the content of what was said or that one would even have to understand everything said. But rather, in the sense that as long as one claimed to express anything meaningful at all, one would have to assume the existence of *some* common standards, if only to be able to agree on whether or not and in what respect one was in

fact in agreement with others, and whether or not and to what extent one in fact understood what had been said. And these common standards would have to be assumed to be objective in that they would involve the application of terms within reality. To say, then, that no common ground exists is contradictory. The very fact that this statement can claim to convey meaning implies that there is such common ground. It implies that terms can be objectively applied and grounded in a common reality of action as the practical presupposition of language.

Thus, if McCloskey were right and there were indeed no objective truth, he could not even claim to entertain anyone meaningfully with his book. His talk would be meaningless, indistinguishable from the rattling of his typewritten He would advocate even greater intellectual permissiveness than first thought. Not only would he have to drop the distinction between truth-claiming propositions and propositions that merely claim to be entertaining, but his permissiveness would go so far as to disallow any distinction between meaningful talk and a meaningless assemblage of sounds. For one cannot even claim to entertain with talk that involves no truth-claim beyond that of being meaningful talk, without still having to know what objective truth is and be able to distinguish between truth-claiming propositions and those statements (for example, in fictional talk) that do not imply any such claim.

And there is more. For how can McCloskey or Rorty reconcile their view of science as mere talk with their own advocacy of a talk-ethic, an ethic described by McCloskey as follows:

> Don't lie [but how could we, if there were no such thing as objective truth? H.H.H.]; pay attention; don't sneer; cooperate; don't shout; let other people talk; be open-minded; explain yourself when asked; don't resort to violence and conspiracy in aid of your ideas. (p. 24)

Why should we follow his advice of paying attention to talk and not resorting to violence, particularly in view of the fact that what is advocated here is talk of the sort where anything goes and where everything said is just as good a candidate for one's attention as anything else? It certainly is not evident that one should pay much attention to talk if that is what talk is all about! Moreover, it would be downright fatal to follow this ethic. For any viable human ethic must evidently allow people to do things

other than talk, if only to have a single human survivor who could possibly have any ethical questions; McCloskey's talk-ethic, however, gives us precisely such deadly advice of never to *stop* talking or stop listening to others talk. In addition, McCloskey himself and his fellow hermeneuticians must admit that they can have no objective ground for proposing their ethic anyway. For if there are no objective standards of truth, then it must also be the case that one's ethical proposals cannot claim to be objectively justifiable either.[8] But what is wrong, then, with not being persuaded by all of this and, rather than listening further, hitting McCloskey on the head straightaway rather than waiting until he perishes from following his own prescription of endless talk? Clearly, if McCloskey were right, nothing could be said to be objectively wrong with this. (In fact, would one not have to conclude that McCloskey could not even say that anything objective had happened?) He might not regard my act of aggression as a contribution to the conversation of mankind (though we know by now that he could not even objectively claim to know this to be the case), but if the talk-ethic cannot itself be grounded in something objective outside of talk, then if I happened to be persuaded of an ethic of aggression instead, and I ended our conversation once and for all with a preemptive strike, McCloskey could not find anything objectively wrong with this either.

Thus, it is not only *intellectual* permissiveness that is preached by hermeneuticians and rhetoricians, it is total *practical* permissiveness as well—epistemological *and*, as the other side of the same coin, ethical relativism.[9] Yet such relativism is impossible to follow and thus wrong in the most objective sense of being literally incompatible with our nature as actors. Just as it is impossible to say and mean to say that there is no such thing as objective truth without in so doing actually presupposing objective criteria for the application of terms, so is it impossible to actually advocate ethical relativism. Because in order to advocate any ethical position whatsoever, one must be allowed to communicate rather than be coercively shut up and silenced, and thus, contrary to the relativist message itself, its messenger, in bringing it to us, must in fact presuppose the existence of objectively defined absolute rights. More specifically, he must presuppose those norms of action as valid whose observance makes talk as a special form of cooperation between physically separate talkers possible, while they must also allow everybody to do things other than engage in endless talk; and whose

validity must then be regarded as objective and absolute in that no one could possibly ever be alive and talkingly challenge them. [10]

Hermeneutics versus Empiricism—Rationalism against Both
Round I

McCloskey's and Rorty's general thesis then, the very thesis that brought them their notoriety, is dead wrong. In fact, McCloskey and Rorty can only do and say what they do because *what* they say is false.

There is certainly much left to be said about rationalism, the age-old opponent of relativism. However, the perennial claims of rationalism remain unchallenged by this most modern, relativist attack: the claim that there exists a common ground on the basis of which objectively true propositions can be formulated; the claim that a rational ethic objectively founded in the nature of man as actors and talkers exists; and finally, the claim, only somewhat indirectly established in the previous argument and still to be substantiated, that one can know certain propositions to be objectively true a priori, (that is, independent of contingent experiences) as they can be derived deductively from basic, axiomatic propositions whose truth cannot be denied objectively without running into a practical contradiction, that is, without presupposing in the very act of denial what is supposedly denied (so that it would be literally impossible to undo the truth of these propositions).[11]

With this fundamental criticism out of the way, what about McCloskey's pronouncements, if for the sake of argument we are willing to ignore that he cannot really claim to say anything? It is not entirely surprising, as will be seen, that the general flaw of the book—its lack of argumentative rigor—also comes to bear here.

The very starting point of McCloskey's argument is marked by a misconception of the problem he faces. For in order to advance the thesis that economists should conceive of their jobs as keeping the conversation between economists going without ever claiming to say anything true (i.e., without ever supposing that anyone might ever have a decisive, conversation-stopping argument at his disposal), McCloskey would have to direct his argument against and refute the most extreme available opposition. He would have to choose as his target the claims of

rationalism regarding the epistemological foundations and methodology of economics. And while only accounting for a small minority among today's theoreticians of economics, there surely exist some such dogmatic, doctrinaire, extremist, absolutist (or whatever other depreciating label one may choose) rationalists.[12] The foremost representatives of this persuasion are Ludwig von Mises and Murray N. Rothbard, who, within the general framework of a Kantian or, respectively, Aristotelian epistemology, conceive of economics as part of a pure theory of action and choice (praxeology).[13] Lionel Robbins advances only slightly less uncompromising views, in particular in the first edition of his *Nature and Significance of Economic Science*.[14] And from a very different position within the political-ideological spectrum are Martin Hollis and Edward J. Nell, who in their *Rational Economic Man* propound similar archrationalist claims regarding the logic of economics.[15] McCloskey would have to attack all of them, since they are the most radical conversation stoppers in that they all, despite some important differences, are completely uncompromising in insisting that economics not only can and *does* produce propositions that are objectively true and can be distinguished from propositions that are not, but, moreover, that some propositions of economics are grounded in incontestably true axioms or real (as contrasted with arbitrary, stipulative) definitions, and hence can be given an a priori justification.[16]

However, nowhere in his book does McCloskey attack these various representatives of an archrationalist methodology of economics, nor does he attack anyone else who falls into this camp. Nowhere in his book does he attack, much less refute, the very position that is the polar opposite of his. Robbins, Rothbard, Hollis, and Nell are never mentioned in McCloskey's text, nor do they appear in his bibliography. Nor does Mises' name appear in the bibliography, but it is mentioned twice in the text in support of some of McCloskey's own pronouncements (pp. 15, 65). Yet there is no reference to Mises' extremist, rationalist position. Austrian methodology is only cited in passing and described in a way that would strike anyone only faintly familiar with this intellectual tradition as no more than a naive misrepresentation: "Austrian methodology says: The history of all hitherto existing societies is the history of interactions among selfish individuals. Use statistics gingerly if at all, for they are transitory figments. Beware of remarks that do not accord with Austrian Methodological precepts" (p. 25).[17]

Rather than doing battle with his direct logical adversary, McCloskey chooses to establish his own relativist position through an attack on empiricism-positivism. But knocking down empiricism-positivism is no more than knocking down a straw man, in that from its downfall, absolutely nothing follows in support of McCloskey's own claims. In fact, all of the previously mentioned archrationalists have leveled much harsher criticism against empiricism-positivism and still apparently did not think that in so doing they would commit themselves to relativism. On the contrary, it is their view that any criticism of empiricism-positivism, if it is one that has any intellectual weight at all, would have to vindicate the very claims of rationalism. Thus, and this is the fundamental misconstruction of his entire argument, McCloskey, given his objective, simply fires at the wrong target and, worse, does not seem to notice.

However, as much as empiricism-positivism may deserve to be intellectually destroyed, McCloskey does not even succeed here. He begins with a description of empiricism-positivism or of economic modernism, as he terms the application of this philosophy to the field of economics, and lists its major precepts (pp. 7–8): prediction is what ultimately counts in science; there is no objective truth without observations; only quantifiable observations are objective data; introspection is subjective and worthless; science is positive and does not deal with normative questions; explaining something positively means bringing it under a general law; and a general law's validity is forever hypothetical, requiring permanent testing against objective observational data.

There is little to quarrel with regarding this characterization of modernism. Quite correctly, McCloskey also cites the most influential modern exponents of this creed: the Vienna Circle, analytical philosophy, and Popperianism in philosophy proper, [18] as well as such representative figures within the economics profession as T.W. Hutchison, Milton Friedman, and Mark Blaug. [19] And McCloskey is certainly correct, too, in identifying this modernist worldview as the current textbook orthodoxy. Nonetheless, from the outset, his understanding of empiricism-positivism is insufficient in that he fails to reconstruct the fundamental assumptions of modernism (i.e., those assumptions that underlie its various precepts). He neglects to assign them a specific place in a general, logically unified conceptual structure. He fails to clarify that the various specific modernist precepts flow essentially from the acceptance of one crucial assumption.

The assumption, fundamental to modern empiricism, is that knowledge regarding reality, or empirical knowledge, must be verifiable or at least falsifiable by experience; that whatever is known by experience could have been otherwise, or, put differently, that nothing about reality could be known to be true a priori; that all a priori true statements are simply analytical statements that have no factual content, but are true by convention, representing merely tautological information about the use and the transformation rules of signs; that all cognitive meaningful statements are either empirical or analytical, but never both; and hence that normative statements, because they are neither empirical nor analytical, cannot legitimately contain any claim to truth, but must be regarded instead as mere expressions of emotions, saying in effect no more than "wow" or "grr."[20] And in failing to clarify this, McCloskey precipitates his subsequent failure to bring even empiricism-positivism, his chosen opponent, down. His attack is simply unsystematic, and it thereby necessarily misses its goal.

McCloskey's first criticism is well targeted. He shows that contrary to the claims of Popper and his school in particular, following the advice of the empiricist-falsificationist philosophy would ultimately lead one to skepticism. Whenever a hypothetical law is empirically tested and found to be lacking, within the very framework of an empiricist methodology it is always possible to immunize one's theory by denying the recalcitrant observations outright and declaring them illusory, by acknowledging them but ascribing their recalcitrance to measurement errors, or by postulating some unobserved, intervening variable, whose lack of control is to blame for the seemingly falsifying observations. Observes McCloskey:

> Insulation from crucial test is the substance of most scientific disagreement. Economists and other scientists will complain to their fellows, "Your experiment was not properly controlled"; "You have not solved the identification problem"; "You have used an equilibrium (competitive, single-equation) model when a disequilibrium (monopolistic, 500-equation) model is relevant." . . . There is no "falsification" going on. (p. 14)

And, he remarks further, have we not known since Thomas Kuhn's *Structure of Scientific Revolutions*[21] that the actual history of natural science does not seem to come anything close

to the Popperian illusion of science as a rational enterprise steadily advancing through a never-ending process of successive falsification. “Falsification, near enough, has been falsified” (p. 15).

McCloskey also shows some understanding of the sociopsychology of modernist methodology: a philosophy such as empiricism, that starts with the assumption that nothing about reality can be known with certainty and hence everything is possible, and that has no place for anything such as objective a priori considerations; an epistemology, that is to say, that puts us under no constraints whatsoever when it comes to choosing our variables to be measured and determining the relation between such variables (except insofar as the chosen relation must fit the data), can be followed by almost everyone and almost everyone can justly feel that if this is what science is all about, he can be as good a scientist as anyone else. Anyone can measure whatever he feels like measuring, then with the help of a computer fit some curves or equations on his data material, and finally change or not change the curves or equations depending on new, incoming material and/or new hypotheses about measurement error or uncontrolled intervening variables. Empiricism is a methodology suited to the intellectually poor, hence its popularity.[22] Notes McCloskey:

> Graduate students in the social sciences view courses in econometrics, sociometrics, or psychometrics as courses in how to become applied economists, sociologists, or psychologists. . . . The delusion is nourished by democracy, which partly explains its special prevalence in America. Everyone of normal intelligence can after such a course decipher the output of the Statistical Package for Social Sciences. No elite culture is necessary, no longer subordination to Doktor Herr Professor,[23] no knowledge accumulated through middle age. (p. 163)

Quite naturally, he sees all this as strong talk against modernist epistemology. And indeed, it might be enough to persuade someone to cease giving credence to modernism, and that would certainly be for the better. But even if true, does it constitute proof of a systematic flaw in the empiricist-positivist philosophy? And does it constitute proof in the hands of a hermeneutician?

As regards this latter question, it must be noted that for McCloskey himself to understand his statements about modernism as a *criticism* of this philosophy should strike one as simply odd. For in his discussion of empiricism-positivism, he clearly blames this philosophy for allowing scientists to engage in some all-too-pervasive intellectual permissiveness; for producing a science that advances nowhere but is a mere random walk of ideas through time to be understood only ex post by historical or sociological explanation; and thereby for opening the floodgates to the invasion of scholarship by intellectual barbarians. Yet McCloskey wants to replace this permissiveness with an even greater one. He wants us to engage in talk, endless and unconstrained by any intellectual discipline whatsoever. Thus, instead of criticizing empiricism-positivism, should he not embrace it enthusiastically for already coming so very close indeed to his own relativist ideals? If empiricism sounds ridiculous to McCloskey, his reason for this can only be that it is just not ridiculous enough, that empiricism is ridiculous because hermeneutics is even more so, and that pure nonsense must prevail over only partial nonsense.

Yet, apart from McCloskey's own position, his arguments directed against modernism cannot count as amounting to anything. "So what," the empiricist could reply. McCloskey has shown that following the modernist precepts leads to a peculiar form of relativism. Admittedly, some empiricists, most notably Popper and his school, have not and still do not recognize this. [24] McCloskey is right in pointing this out again. But then he must admit that this has also been realized by empiricists without causing them much intellectual pain. Was it not Feyerabend who first and most forcefully drove the relativist message home to Popperianism?[25] And was not he himself a leader of this very school who simply drew the ultimate logical conclusions of Popperianism?[26] Empiricism cannot explain the process of scientific development as a rational enterprise. True enough. But it cannot account for it because the process is not rational. And what is wrong with this? What is wrong with empiricism once it admits its own relativism?

McCloskey gives no answer to these questions. He does not advance any principled arguments that would prove empiricism to be a self-defeating position. Nor does he challenge empiricism on the much more obvious empirical front. It would seem to be evident that at least empiricism's claim of providing us with a correct epistemology of the natural sciences should, in view of

the facts, be regarded as incorrect. For whatever the true state of affairs with respect to economics and the social sciences might be, with respect to the natural sciences it seems difficult to deny that hand in hand with their development went a steady, universally recognized process of technological advancement and improvement, and that this fact of technological progress can hardly be brought in line with the empiricist view of science as a relativistic, noncumulative enterprise. Empiricism then simply seems to have been *empirically* refuted as an appropriate methodology for the natural sciences.[27]

Yet such a refutation in no way supports McCloskey's own position. For the existence of technological progress would have to stand just as much in the way of hermeneutical relativism as in that of empiricism.[28] Only a rationalist methodology of the natural sciences could account for such progress. Only a methodology that begins with the recognition of the fact, as an undeniably true fact of our human nature as actors and talkers, that language in general and scientific theories in particular are ultimately grounded in a common, objective reality of action and cooperation can explain why such progress is possible without thereby having to deny some partial correctness of Kuhn and Feyerabend's relativistic portrayals of the history of the natural sciences.

The relativistic impression is due to the fact that Kuhn and Feyerabend, typical of empiricists since Locke and Hume, ultimately misconceive of scientific theories as mere systems of verbal propositions and systematically ignore the foundation of these, or of any, propositions in a reality of action and interaction.[29] Only if one regards observations and theories as being completely detached from action and cooperation, not only does any single theory become immunizable, but any two rival theories whose respective terms cannot be reduced to and defined in terms of each other must then appear completely incommensurable and no rational choice is possible. If statements are merely and exclusively verbal expressions hanging in midair, what reason could there be for any one statement to ever give way to another? Any one statement can perfectly well stand alongside any other one without ever being challenged—unless we simply decide otherwise for whatever arbitrary reason. It is this that Kuhn and Feyerabend demonstrate. But this does not affect the refutability of any one theory and the commensurability of rival theories on the entirely different level

of applying these theories in the reality of action, of using them as instruments of action. On the level of mere words, theories may be irrefutable and incommensurable, but practically they can never be. In fact, one could not even state that any single theory was irrefutable or any two theories were incommensurable and in what respect, unless one were to presuppose a common categorical framework that could serve as a basis for such an assessment or comparison. And it is this *practical* refutability and commensurability of theories of natural science that explains the possibility of technological progress—even though it accounted for technological progress in quite a different manner than Popper's failed attempt.[30]

Popper would have us throw out any theory that is contradicted by any fact, which, if at all possible, would leave us virtually empty-handed, going nowhere. In recognizing the insoluble connection between theoretical knowledge (language) and actions, rationalism would instead deem such falsificationism, even if possible, as completely irrational. There is no situation conceivable in which it would be reasonable to throw away any theory—conceived of as a cognitive instrument of action—that had been successfully applied in a past situation but proves unsuccessful in a new application—unless one already had a more successful theory at hand. And to thus immunize a theory from experience is perfectly rational from the point of view of an actor. And it is just as rational for an actor to regard any two rivals, in their range of application overlapping theories t_1 and t_2 as incommensurable as long as there exists a single application in which t_1 is more successful than t_2 or vice versa. Only if t_1 can be as successfully applied as t_2 to every single instance to which t_2 is applicable but still has more and different applications than t_2 can it ever be rational to discard t_2. To discard it any earlier, because of unsuccessful applications or because t_1 could in some or even in most situations have been applied more successfully, would from the point of view of a knowing actor not be progress but retrogression. And even if t_2 is rationally discarded, progress is not achieved by falsifying it, as t_2 would actually have had some successful applications that could never possibly be nullified by anything (in the future). Instead, t_1 would outcompete t_2 in such a way that any further clinging to t_2, though of course possible, would be possible only at the price of not being able to successfully do everything that an adherent of t_1 could do who could successfully do as much and more than any proponent of t_2.

Trivial as such an account of the possibility of progress (as well as retrogression) in the natural sciences may seem, it is incompatible with empiricism. In systematically ignoring the fact that observations and theories are those of an actor, made and built in order to act successfully, empiricism has naturally deprived itself of the very criterion against which knowledge is continually tested and commensurated: the criterion of successfully or unsuccessfully reaching a set goal in applying knowledge in a given situation.[31] Without the explicit recognition of the universal operativeness of the criterion of instrumental success, relativism was inescapable. However, such relativism would once more literally be impossible to adopt, because it is incompatible with our nature as acting talkers and knowers. Relativism could not even meaningfully claim to deny the operativeness of this criterion, as this very denial would itself have to be an action that presupposed some objective standard of success. Rather, in each of our actions, we confirm rationalism's claim (as regards the natural sciences) that one can objectively identify a range of applications for some knowledge and then test it for its success within this range, and, hence, that competing theories must be considered commensurable as regards such ranges of applications and success.

Hermeneutics versus Empiricism—Rationalism against Both Round II

McCloskey's first round against empiricism then is a complete failure. Nor is his second round of criticism any more successful. There, McCloskey takes issue with the modernists' emphasis on prediction as the cornerstone of science. Though he does not deny the possibility of prediction in the natural sciences, he doubts its overwhelming importance. However, prediction in economics, he claims, is impossible. "Predicting the economic future is, as Ludwig von Mises put it, 'beyond the power of any mortal man'" (p. 15).

In order to defend this thesis, we would expect him to establish two separate but related claims. First would be the claim that something is wrong with methodological monism—the program of an *Einheitswissenschaft*—and methodological dualism should be adopted. Otherwise it makes no sense to say that predictions are possible in one field of inquiry but impossible in another. The second claim would be that on the basis of such a

dualist position, it can be demonstrated why predictions are possible in one field but not in another. McCloskey does nothing of this sort. It entirely escapes his notice that his position vis-à-vis modernism requires him to attack empiricism on account of its monism; that its monist stand makes it actually impossible for empiricism to explain how predictions, which allegedly constitute the very heart of the empiricist program, can conceivably be possible—and impossible for precisely the same reason that empiricism could not account for the possibility of progress in natural science; and that a dualist position (which McCloskey would be required to take if he wanted to systematically challenge modernism) would be incompatible with hermeneutics—itself being a monist position, though a different sort than empiricism's—and can again only be reconciled with a rationalist methodology, which alone can account for the possibility of the empiricist dream of predictions.

Empiricism is observational monism, stating that all our empirical knowledge is derived from observations and consists in interrelating these observations; and, further, that observations as well as relations have the permanent status of only being true hypothetically. This is the case in economics as well as in any other field concerned with empirical knowledge, and hence the problem of prediction must be the same everywhere. McCloskey does not answer this systematic challenge. He does not present the conclusive refutation of such monism by pointing out that in claiming what empiricism claims, one in fact falsifies the content of one's statement. For to claim what it claims, empiricism must actually presuppose that in addition to observations, meaningful objects exist—words tied to reality via cooperation—that, along with the relations among them, must be understood rather than observed. Hence the need for methodological dualism.[32]

Nor does McCloskey notice the incompatibility of observational monism with the notion of prediction. The idea of prediction and causality (i.e., that there are constant, time-invariantly operating causes that allow one to project past observations regarding the relationship between variables into the future) is something (as empiricism since Hume has noticed) that has no observational basis and hence cannot be said to be justified (within the empiricist framework). One cannot observe the connecting link between observations, except that they are somehow contingently related in time. And even if one could observe it, this observation would still not prove that such an observed connection was time-invariant. Strictly speaking, within

the framework of observational monism, it does not even make sense to place observations in objective time.[33] Rather, the observed relationships are those between data in the temporal order in which an observer happens to observe them (clearly something very different from our notion of being able to distinguish between a real, causally effective order and sequence of observations and the mere temporal order in which observations are made). Hence, strictly speaking, according to empiricism, predictions are epistemologically impossible. It is irrational to want to predict, because the very possibility of prediction cannot be rationally established. And this, then, is also the ultimate reason for empiricism's skeptical stand regarding the possibility of scientific progress. For if one cannot rationally defend the very idea of causality, how can one expect anything from science but an array of incommensurable observational statements? Progress, as it is commonly understood, is the advancement of predictive knowledge. But surely no such thing can be possible if prediction itself cannot be established as possible.[34]

McCloskey also does not confront the challenge of explaining how hermeneutics accounts for a dualism and the very possibility of prediction (if only in the natural sciences). Nor could he have succeeded in this. For an argument such as dualism would establish that certain propositions can be said to be objectively true—in fact to be a priori true—and this would contradict the relativist message of hermeneutics. Yet as a monist position, hermeneutics cannot account for causality any more than empiricism can. As an observational monism, empiricism would like to reduce all our empirical knowledge to observations and observations of contingent relations between observations, and it is therefore ultimately forced to abandon the idea of time-invariantly operating causes. Hermeneutics would like to reduce it to a talk-monism; to talk disconnected to anything real outside of talk itself; to sequences of talk hanging in midair with no objective, talk-constraining grounding whatsoever. For this reason, hermeneutics cannot account for causality. For in the absence of any common, objective standard, all talk is simply incommensurable, and no objective connection whatsoever can exist between any talk apart from the mere temporal order of talking.

Both dualism and causality can only be explained by rationalism. Rationalism begins with the insight that empiricism is self-refuting, since it cannot actually state its own position

without implicitly admitting that in addition to observations and contingent relations of observations, other meaningful things and relations (i.e., words sustained through action and acquiring meaning in the course of such action) must also exist. Similarly, rationalism rejects hermeneutics as self-refuting, because a talk-monism, too, could not be stated without implicitly admitting it as false in that it would have to presuppose the very existence of actions guided by observations, if only in order to sustain talk—thus falsifying the claim of talk ever being unconstrained by anything objective. And rationalism then concludes that the key to the problem of causality must lie in the recognition of the fact (ignored by both empiricism and hermeneutics) that observations as well as words are constrained by action, and that this can be established neither by observation nor by mere talk, but rather must be understood on account of our knowledge of action as the practical presupposition of any observation or talk as an a priori true fact of human nature.

It is from such a priori understanding of action that the idea of causality can indeed be derived.[35] Causality is not a category of observations. It is a category of action whose knowledge as an a priori feature of reality is rooted in our very understanding of our nature as actors. Only because we are actors and our experiences are those of acting individuals can observations be conceived of as occurring objectively earlier or later and as being related to each other through time-invariantly operating causes.[36] No one who did not know what it meant to act could ever experience events occurring in real time and in invariant causal sequences. And no one's knowledge of the meaning of action and causality could ever be said to be derived from contingent observational evidence, as the very fact of experiencing already presupposes action and causally interpreted observations. Every action is and must be understood as an interference with the observational world, made with the intent of diverting the "natural" course of events in order to produce (i.e., to *cause* to come into being) a different, preferred state of affairs—of making things happen that otherwise would not happen—and thus presupposes the notions of events placed in objective time and of time-invariantly operating causes. An actor can err with respect to his particular assumptions about which earlier interference produced which later result, and thus his interference might not actually turn out to be successful. But successful or not, any action, changed or unchanged in light of its success or failure, presupposes that there are constantly

connected events in time, even if no particular cause for any particular event can ever be preknown to any actor at any time. In fact, attempting to disprove that observational events are governed by time-invariantly operating causes would require one to show that some given event cannot be observed or produced based on some earlier interference. Yet trying to disprove this would again necessarily presuppose that the occurrence or nonoccurrence of the phenomenon under scrutiny could, in fact, be effected by taking appropriate action, and that the phenomenon must thus presumably be embedded in a network of constantly operating causes. Hence, rationalism concludes that the validity of the principle of causality cannot be falsified by taking any action, since any action would have to presuppose it. [37]

McCloskey notices none of this. And so it is no surprise that the arguments raised in support of his claim regarding the impossibility of prediction in economics are off the mark, too. Though in themselves correct arguments, they simply do not constitute the impossibility theorem that is needed.

What McCloskey offers as proof, which he incidentally claims to be "more precise" than some earlier, related Austrian thoughts (p. 90), is the following insight: "If economists could do [predict] better than business people, the economists would be rich. They are not" (p. 93). Hence, we should not trust people who claim to have information about future economic events. For if they really did have such knowledge, why would *they* not strike it rich, instead of telling *us* how to do it (p. 16)? Realistically, we should regard economic forecasters as providing information that, generally speaking, is economically worthless in that it tells us no more about future economic events than what concerned people on the average believe and expect anyway and have already accounted for in their present actions (p. 93f.).

Good enough. However, a much more succinct presentation than this can already be found in Mises.

> There are no rules according to which the duration of the boom or of the following depression can be computed. And even if such rules were available they would be of no use to businessmen. What the individual businessman needs in order to avoid losses is knowledge about the date of the turning point at a time when other businessmen still believe

> that the crash is farther away than is really the case. . . . Entrepreneurial judgement cannot be bought on the market. The entrepreneurial idea that carries on and brings profit is precisely that idea which did not occur to the majority. It is not correct foresight as such that yields profits, but foresight better than that of the rest.[38]

Yet this, as Mises but not McCloskey knows, does not prove the impossibility of causal predictions in economics.[39] All it proves is that differential profits can only emerge from *differences* in knowledge. The question is, however, if such knowledge—regardless of whether it is unequally distributed and thus allows for the possibility of differential profits and losses, or equally distributed and thus tends to only account for a uniform rate of return for the forecasters—is such that it could be expressed in a prediction formula that could legitimately make use of the assumption of time-invariant causes and hence could be conceived of as a systematically testable and improvable formula.

Surely McCloskey does not want to deny the possibility of prediction as such in economics. We constantly make such predictions. Moreover, while economic forecasters may not generally be rich and thus evidently may not know more than the rest of us, some of them are, and certainly there are some businessmen who are rich. Evidently, people not only can forecast, but can forecast correctly and successfully. The impossibility theorem cannot be meant to prove that no (successful) prediction whatsoever can be made in the field of economics, but rather only that a certain type of prediction is impossible here that is possible elsewhere. Yet the argument does not prove this. For we have no difficulties applying the idea of differential predictive knowledge and differential returns from forecasting to the field of the natural sciences, and still conceiving of them as gradually progressing and producing ever-improved prediction formulae. One natural-science forecaster may know more than another and even stay ahead of the competition permanently, but this does not imply that his relative advantage is not one that could not possibly be expressed, at all times, in terms of a formula that uses predictive constants and is capable of systematic improvement by means of successive testings. Why, then, should this be any different in the realm of economic forecasting? Why can the rich businessman

not have gained his position in the same way as the relatively more successful natural-science forecaster?

This is what must be answered by the impossibility theorem. On this, however, McCloskey is silent. Nor can an answer be formulated by a hermeneutician. For an impossibility theorem would be precisely the kind of conversation-stopping argument that McCloskey claims to be nonexistent. To prove that economic forecasting is categorically different from natural-science forecasting would only mean confirming the claims of rationalism. Such proof would not have relativistic consequences regarding economic predictions as it may at first seem—such as to say that no systematic mistake whatsoever could be made by an economic forecaster and that any economic forecast's failure or success would thus be due entirely to bad or good luck. Instead, even if it were to show that there were indeed some ineradicable element of luck in economic forecasting, making progress as it exists in technological forecasting impossible in the field of economics, at the same time such proof would establish the existence of a priori true propositions on the subject matter of economics, which would then systematically constrain the range of possible predictions about future economic events and open up the possibility of predictions that were systematically flawed in that they would be at variance with such fundamental, a priori valid knowledge.

And indeed, argues rationalism, economic predictions that would make use of the assumption of time-invariantly operating causes must thus be considered systematically flawed.[40] While every action presupposes causality, no actor can conceive of his actions as ever being predictable on the basis of constantly operating causes. Causality can only be assumed to exist outside of the field of human action, and economic predictions as predictions concerning future actions are impossible. This follows from the very modernism that McCloskey criticizes, incidentally proving this position a self-refuting one once again. Empiricism claims that actions, just as any other phenomenon, can and must be explained by means of causal hypotheses that can be confirmed or falsified by experience. Now, if this were the case, empiricism would be forced to assume—contrary to its own doctrine that there is no a priori knowledge about reality—that time-invariantly operating causes with respect to actions exist. One would not know a priori which particular event might be the cause of a particular action. Experience would have to reveal this. But in order to proceed in the way that empiricism wants us

to proceed (i.e., to relate different experiences regarding sequences of events as either confirming or falsifying each other and, if falsifying, then responding with a reformulation of the causal hypothesis), a constancy over time in the operation of causes *as such* must be presupposed. (Without such an assumption, the different experiences would simply be unrelated, incommensurable observations.[41]) However, if this were true, and actions could indeed be conceived of as governed by time-invariantly operating causes, what about explaining the explainers (i.e. the persons who carry on the very process of creating hypotheses), of verification and falsification? Evidently, in order to assimilate confirming or falsifying experiences—to replace old hypotheses with new ones—one must presumably be able to learn. However, if one is able to learn from experience, then one cannot know at any given time what one will know at a later time and how one will act based on this later knowledge. Rather, one can only reconstruct the causes of one's actions after the event, as one can only explain one's knowledge after one already possesses it. Thus, the empiricist methodology applied to the field of knowledge and action, which contains knowledge as its necessary ingredient, is simply contradictory—a logical absurdity.[42]

Moreover, it is plainly contradictory to argue that one could ever predict one's knowledge and actions based on antecedent, constantly operating causes. For to argue so is not only absurd because it implies that one can know now what one will know in the future; it is also self-defeating, because to do so would actually be saying that there was something that was not yet understood, but rather had to be learned about and examined as regards the acceptability of its validity claims, with as yet unknown results with respect to the outcome of this (either for our future knowledge, or for our and others' knowledge about the knowledge of others).

Thus, as McCloskey states yet does not prove, causal empirical explanations regarding knowledge and actions are indeed impossible. Whoever pretends, as empiricist economists invariably do, to be able to predict future knowledge and actions based on constantly operating antecedent variables is simply speaking nonsense. There are no such constants in the field of human action, as Mises insisted over and over again. Economic forecasting is not and never can be a science, but will always be a systematically unteachable art. Yet, and I shall return to this shortly, this does not mean that such forecasts would not be

constrained by anything. While no particular action can ever be predicted scientifically, each and every prediction of future actions and the consequences of actions is constrained by our a priori knowledge of actions as such.

Rationalism and the Foundations of Economics

In the second round of its criticism of empiricism-positivism, hermeneutics fails just as it failed in the first. And again it is philosophical rationalism—equally critical of hermeneutics and empiricism—that is vindicated. Yet McCloskey makes one more point worth mentioning, as he reminds us that modern hermeneutics is an outgrowth of the discipline of interpreting the Bible.[43] In line with this traditionalist orientation, the case for hermeneutics ultimately boils down to an uncritical appeal to and acceptance of authority. We are asked by McCloskey to embrace the new old creed because some authorities tell us to do so. In his view, empiricism is not wrong as such—as a matter of fact, there was a time when it was quite all right to follow empiricist advice. But that was when philosophical authorities were all sold on empiricism. In the meantime, empiricism is out of favor with the philosopher kings and only the practitioners of science still cling to it—not realizing that fashion has changed. It is high time, then, that we shift and follow the new trend setters. Writes McCloskey: "The argument that Hutchison, Samuelson, Friedman, Machlup, and their followers gave for adopting their metaphysics was an argument from authority, at the time correct, namely that this was what philosophers were saying. The trust in philosophy was a tactical error, for philosophy itself was changing as they spoke" (p. 12). And the same goes for the mathematization of economics. Once it was good; now it is becoming bad. The winds of fashion change and we had better pay attention to this. "Economists before the reception of mathematics fell headlong . . . into confusions that a little mathematics would have cleared up." Imagine, they

> could not keep clear, for instance, the difference between a movement of an entire curve and a movement along a curve. . . . But now, so long after the victory, one might ask whether the faith which supported it still serves a social function. One might ask whether the strident talk of Science in economics, which served well in bringing clarity

> and rigor to the field, has outlived its usefulness. (pp. 3–5)

Surely, this lives up again to truly relativistic form. Yet as we have seen, there is no reason in the world to accept such relativism. Relativism is a self-contradictory position. And just as it is impossible to defend the hermeneutical relativism as the methodology of today, so is it impossible to defend the empiricism-positivism of yesterday. Empiricism-positivism, too, is a self-defeating doctrine, and not only because of its observational monism, which cannot be stated without implicitly admitting its falsehood and accepting a dualism of observable and meaningful phenomena to be understood on account of our knowledge of action and cooperation. Empiricism's fundamental distinction between analytical, empirical, and normative propositions is equally indefensible. What then is the status of the very proposition introducing this distinction? Assuming that empiricist reasoning is correct, it must be either an analytical or an empirical proposition, or it must be an expression of emotions. If it is understood as analytical, then according to its own doctrine it is merely verbal quibble, saying nothing about anything real but rather only defining one sound or sign by another, and hence one would simply have to reply "so what?" The same response would be appropriate, if, instead, the basic empiricist proposition were taken to be an empirical one. For if this were so, it would not only have to be admitted that the propositions might well be wrong. More decisively, as an empirical proposition, the most it could state would be a historical fact and it would thus be entirely irrelevant in determining whether or not it would be *impossible* to *ever* produce either a priori true propositions that were not analytical or normative propositions that were not emotive. And finally, if the empiricist line of reasoning were assumed to be an emotive argument, then according to its own pronouncements, it is cognitively meaningless and one would not have to pay any more attention to it than to a dog's bark. Thus, one must again conclude that empiricism-positivism is an utter failure. If it were correct, its basic premise could not even be stated as a cognitively meaningful proposition; and if it could be so stated and empiricism were indeed making the proposition that we all along thought it did, then the analytical-empirical-normative distinction would be proven false by the very proposition introducing it.[44]

How then, could it ever have been right to follow a false doctrine? To conceive of economics, or more precisely of actions, as empiricism does, and accordingly to treat economic phenomena as observable variables, measurable and tractable by mathematical reasoning, must have always been wrong. And the surge of positivism in economics could never have added to clarity, but from the very beginning must have helped instead to introduce ever more falsehoods into the field.

There *is* empirical knowledge that is valid a priori. And such knowledge informs us that it has never been correct to represent relationships between economic phenomena in terms of equations containing the assumption of empirical causal constants, because to conceive of actions as being caused by and predictable on the basis of antecedent variables is contradictory. Moreover, the very same a priori knowledge reveals that it is at all times incorrect to conceive of economic variables as observable magnitudes. Rather, all categories of action must be understood as existing only as subjective interpretations of observable events. The fact that knowledge and talk are those of an actor and constrained by our nature as actors cannot be observed, but rather must be understood. Nor can causality or objective time ever be simply observed, but our knowledge of it is based on our prior understanding of what it is to act. And so it is regarding the rest of the economic categories, as Mises above all has shown. There are no values to be observed, but things can be understood as valued only because of our prior knowledge of action. As a matter of fact, that there is such a thing as actions also cannot be observed, but must be understood. It cannot be observed that with every action, an actor pursues a goal and that whatever his goal, the fact that it is pursued by an actor reveals that he places a relatively higher value on it than on any other goal of action that he at the very start of his action could think of. Further, it can neither be observed that in order to achieve his most highly valued goal an actor must interfere (or decide not to interfere) at an earlier point in time to produce some later result, nor that such interferences invariably imply the employment of some scarce means (at least those of the actors' body, its standing room, and the time absorbed by the interference). It is unobservable (1) that these means must also have value for an actor—a value derived from that of the goal—because the actor must think their employment necessary in order to effectively achieve the goal and (2) that actions can only be performed sequentially, always involving the making of a choice (i.e.,

taking up that course of action that at some given point in time promises the most highly valued result to the actor and excluding at the same time the pursual of other, less highly valued goals). It cannot be observed that as a consequence of having to choose and give preference to one goal over another—of not being able to realize all goals simultaneously—each and every action implies the incurrence of costs (i.e., forsaking the value attached to the most highly valued alternative goal that cannot be realized or whose realization must be deferred because the means necessary to effect it are bound up in the production of another even more highly valued end). And lastly, it is unobservable that at its starting point, every goal of action must be considered (1) worth more to the actor than its costs and (2) capable of yielding a profit (i.e., a result whose value is ranked higher than that of the forgone opportunities), and yet that every action is also invariably open to the possibility of a loss if an actor finds, in retrospect, that the actually achieved result—contrary to previous expectations—in fact has a lower value than the relinquished alternative would have had.

All of these categories (values, ends, means, choice, preference, cost, profit and loss, time, and causality) are implied in the concept of action. That one is able to interpret experiences in such categories requires that one already knows what it means to act. No one who is not an actor could ever understand them, as they are not "given," ready to be experienced, but experience is cast in these terms as it is constructed by an actor. And then to treat such concepts, as empiricism-positivism would, as things extending in space and allowing quantifiable measurements is missing the goal entirely. Whatever one might explain in following empiricist advice, it has nothing whatsoever to do with explaining actions and experiences cast in the categories of action. These categories are ineradicably subjective ones. And yet they represent empirical knowledge in that they are conceptual organizations of real events and occurrences. They are not merely verbal definitions; they are real definitions of real things and real observations.[45] Furthermore, they are not only empirical knowledge; contrary to all relativistic aspirations, they incorporate a priori valid empirical knowledge. For it would clearly be impossible to disprove their empirical validity, as the attempt to do so would itself be an action aimed at a goal, requiring means, excluding other courses of action, incurring costs, and subjecting the actor to the possibility of achieving or not achieving the desired goal and so making a profit or suffering

a loss. The very possession of such knowledge can never be disputed, and the validity of these concepts can never be falsified by any contingent experience, since disputing or falsifying anything already presupposes its very existence. As a matter of fact, a situation in which these categories of action would cease to have a real existence could itself never be observed, as making an observation is in itself an action.

Economic reasoning has its foundations in this a priori knowledge of the meaning of action.[46] It concerns phenomena that, though existing objectively, cannot be subjected to physical measurements, but must be *understood* as conceptually distinct events. And it concerns phenomena that cannot be predicted based on constantly operating causes; and our predictive knowledge about such phenomena, accordingly, cannot be said to be constrained by contingent empirical laws (i.e., laws that one would have to discover through a posteriori experiences). Instead, it concerns objects and events that are constrained by the existence of a priori valid, logical, or praxeological laws and constraints (i.e., laws whose validity is completely independent of any kind of a posteriori experience). Economic reasoning consists of (1) an understanding of the categories of action and the meaning of a change in values, preferences, knowledge, means, cost, profit, or loss, and so on, (2) a description of a situation in which these categories assume specific meaning and definite individuals are described as actors, with definite things specified as their goals, means, profits, and costs, and (3) a logical deduction of the consequences which result from the introduction of some specified action in this situation, or of the consequences which result for an actor if this situation is changed in a specified way. Provided there is no flaw in the process of deduction, the conclusions that such reasoning yields are valid a priori because their validity would ultimately go back to the indisputable axiom of action. If the situation and the changes introduced into it are fiction or assumptions, then the conclusions are true a priori only of a possible world. If, on the other and, the situation and situational changes can be identified as real, perceived, and conceptualized as such by real actors, then the conclusions are a priori true propositions about the world as it really is. And such realistic conclusions, which are the economists's main concern, act as logical constraints on our actual predictions of future economic events. They do not guarantee correct predictions—even if the empirical assumptions are indeed correct and the deductions are flawless—because in

reality, there can be all sorts of situational changes happening concurrently or following the explicitly introduced change in the action-world data. And though they also affect the shape of things to come (and cancel, increase, decrease, accelerate, or decelerate effects stemming from other sources), such concurrent changes can in principle never be predicted or experimentally held constant, because to conceive of subjective knowledge (whose every change has an impact on action) as predictable on the basis of antecedent variables and as capable of being held constant is an outright absurdity. The experimenter who so wanted to hold it constant would in fact have to presuppose that his knowledge, specifically his knowledge regarding the experiment's outcome, could not be assumed to be constant over time. However, while they cannot render any specific future economic event certain or even predictable on the basis of a formula, such a priori conclusions nonetheless systematically restrict the range of possibly correct predictions. Predictions that are not in line with such knowledge would be systematically flawed and would lead to a systematically increased number of forecasting errors—not in the sense that anyone who based his predictions on correct praxeological reasoning would necessarily have to be a better predictor of future economic events than someone who arrived at his predictions through logically flawed deliberations and chains of reasoning, but in the sense that in the long run, certeris paribus, the first group of forecasters would average a better record than the second.

Regarding any specific forecast, it is very possible to falter despite one's correct identification of a situational change as described in terms of the a priori categories of action and one's correct analysis of the praxeological consequences of such change, because one might err regarding one's identification of other, accompanying changes. It is equally possible to arrive at a correct forecast in spite of the fact that one's inferences drawn from one's correct description of a situational change were praxeologically wrong, because other concurrent events might be of such a kind as to counteract such a wrong assessment of consequences. However, if it is assumed that, on the average, forecasters with or without a solid grasp of praxeological laws and constants are both equally well equipped to anticipate such other concurrent changes in the action-world and to account for them in their predictions, then the group of forecasters that makes its predictions in recognition of and accordance with such laws will be more successful than that which does not.

As are all economic theorems, the law of demand (which causes empiricists as well as hermeneuticians considerable uneasiness because of its apodictically assumed central position in economics) is an a priori true constraint on actual predictions regarding the consequences of certain actions. Empiricism tells us to conceive of it as an in-principle falsifiable hypothesis about the consequences of price changes. Yet, if we accept this and empirically test the law, we frequently find that a price increase, for instance, goes hand in hand with an increase in the quantity demanded, or that a price decrease is accompanied by a reduced demand. The law holds sometimes and for some goods, but at other times, for the same or other goods, it does not. How then, concludes empiricism, can economists assign to this law the axiomatic position that it occupies in economic theory and build a complex network of thought based on it? To do so must seem to an empiricist to be nothing but bad metaphysics that needs to be expelled from the discipline as soon as possible in order to bring economics back onto the right track.[47]

Hermeneutics is no more successful in justifying the law of demand. McCloskey realizes that the empiricist case for the law is weak at best. Yet he believes it acceptable to stick with it—as, despite their professed empiricism, most economists indeed do—because the law of demand is allegedly persuasive in light of other hermeneutical evidence (pp. 58–60). Such supportive evidence supposedly comes from "introspection," from "thought experiments," and from illustrative case stories; there is the persuasive fact that "business people" believe in the law, and "many wise economists"; the "symmetry of the law" makes it esthetically appealing; "mere definition" adds power; and "above all, there is analogy. That the Law of Demand is true for ice cream and movies, as no one would want to deny, makes it more persuasive also for gasoline" (p. 60). None of this, however, could make the law of demand any better founded and give it the authority it indeed seems to command. To be sure, introspection is the source of our knowledge of the law of demand. This particular law is no more founded in observations than are the laws of logic and mathematics. Yet introspections as such, or thought experiments, can no more establish the law of demand than can observational evidence. Introspective evidence, too, is nothing other than contingent experience. Here and now somebody arrives at this thought, and there and then someone else reaches the same or a different one. As McCloskey himself states, "if properly socialized in economics," introspection and

thought experimentation make the law highly persuasive (p. 59). But, mutatis mutandis, then, if one is not so socialized, introspection might render the law far less appealing. Then, however, introspection as such can hardly be said to lend any systematic support to it. In fact, to appeal to the economists' introspective evidence would amount to a begging of the question, as it would have to be explained why one should accept this economic socialization or brainwashing in the first place. In the same way, case stories or convictions of certain businessmen or wise economists are not proof of anything. Aesthetic criteria and mere definitions, too, have no epistemological value. And conclusions per analogiam are only conclusive if the analogy itself can be said to be correct—besides the fact that it would certainly not be impossible for someone to say that the law of demand sounds unpersuasive even for ice cream and movies.[48] Hence, hermeneutics offers nothing substantive to vindicate our belief in the law of demand.

And yet the law of demand is objectively true despite the fact that it is not based on contingent external or internal experiences. Rather, its foundation lies in our introspective understanding of action as the practical presupposition of our external as well as our internal experiences and in the recognition of the fact that this understanding must be considered epistemologically prior to any contingent act of understanding in that it could not possibly be falsified by it. The fact that in order to exchange successive units of a good A for successive units of a good B, the exchange ratio of A to B must fall follows from the law of marginal utility: as the supply of A decreases and the marginal utility of a unit of A increases, the supply of B increases and B's marginal utility decreases, and hence successive units of A will become exchangeable for successive units of B only if counteracting these divergent changes in the valuation of As and Bs that follow each exchange, B becomes successively cheaper in terms of A. And as the foundation of the law of demand, this law of marginal utility then follows directly from the undeniably true proposition that every actor always prefers what satisfies him more over what satisfies him less.[49] For then any increase in the supply of a homogeneous good (i.e., a good whose units are considered to be interchangeable and of equal serviceability) by one additional unit can only be employed as a means for the attainment of a goal that is considered less valuable (or the removal of an uneasiness that is deemed less urgent) than the least valuable

goal satisfied by means of a unit of such a good if the supply were one unit less.[50] And, as required of any a priori law and again independent of any contingent experiences, this law also precisely delineates its range of application and explains what possible occurrences cannot be considered exceptions or falsifying events. For one thing, the validity of the law of diminishing marginal utility is not at all affected by the fact that the utility of the marginal unit of some good can increase as well as decrease over time. If, for instance, a hitherto unknown use for a unit of some good is found that is considered more valuable than the least urgent present use of a unit of this good, the utility derived from the marginal employment would be higher now than previously. Yet despite such an increase in marginal utility, there is no question of such a thing as a law of increasing marginal utility. For not only would the actor whose supply of the good in question was unchanged and who realized such new employment have to give up some previously satisfied desire in order to satisfy another one; he would give up the less urgent one. Moreover, if with this new state of affairs regarding an actor's knowledge about possible employments for units of some given good, its supply increases by an additional unit, its marginal utility would decrease as it would be employed to satisfy precisely that desire that previously had to be excluded from satisfaction because of its relatively lesser urgency.

Nor is it an exception to the law of diminishing marginal utility that an increase in the supply of a good from n to $n + 1$ units can lead to an increase in the utility attached to one unit of this good if such a larger supply, considered and evaluated as a whole, can be employed for the satisfaction of a want deemed more valuable than the value attached to all the satisfaction that could be attained if the units of supply were each employed separately for the various goals that could be achieved by means of one individual unit of such good.[51] However, in such a case, the increase in supply would not be one of supply-units regarded as equally serviceable, because the units simply would no longer be evaluated separately. Rather, in increasing the supply from n to $n + 1$, a different, larger-sized-unit good would be created that would be evaluated as such, and the law of diminishing marginal utility would then apply to this good in the same way as it applied to the smaller-sized good in that the first unit of this good of size $n + 1$ would again be employed for the most urgent use to which a good of this size could be put, the second unit of supply of such sized good would be employed for the second

most important goal to be satisfied by such sized good, and so on.

The law of demand then, as grounded in this a priori valid theorem, has never made the unqualified prediction that less of a good will be bought if its price rises. Rather, it states that this will be the case only ceteris paribus i.e., if no increase in the demand for the good in question occurs over time and if the increase in its supply does not effect a different, larger-sized-unit good and, mutatis mutandis, the demand for money does not decrease nor does its smaller supply effect separately evaluated smaller-sized money units.[52] Since it is impossible to have a formula that allows one to predict whether or not such changes occur concurrently with the given rise in price (such changes being dependent on people's future states of knowledge and future knowledge being in principle unpredictable based on constantly operating causes), such a priori knowledge then has a rather limited usefulness for one's business of predicting the economic future. Nevertheless it acts as a logical constraint on predictions in that of all forecasters who equally correctly guess that no such concurrent change will take place, only he who recognizes the law of demand will indeed make a correct prediction, while he whose convictions are at variance with the law will blunder. Such is the logic of economic predictions and the function of praxeological reasoning.

Empiricism recommends the law of demand because it supposedly looks good—yet we can neither see it, nor would it survive empirical testing. Hermeneutics, on the other hand, recommends it because it supposedly sounds good—yet to some it sounds bad. And without some objective, extralinguistic criterion of distinguishing between good or bad, it is impossible to say more in support of the law of demand than somebody said so.

Austrians, as should be clear by now, have no reason to take either the old empiricist fashion or the new hermeneutical one very seriously. Instead, they should take more seriously than ever the position of extreme rationalism and of praxeology as espoused above all by the "doctrinaire" Mises, as unfashionable as such a stand might now be.

Review of Donald McCloskey, *The Rhetoric of Economics* (Madison: University of Wisconsin Press, © 1985 by the Board of Regents of the University of Wisconsin System).

[1] Princeton, N.J.: Princeton University Press, 1979.

[2] This is also the thesis of a book by Paul Feyerabend, *Wissenschaft als Kunst* (Frankfurt/M.: Suhrkamp, 1984).

[3] See the interview with McCloskey in the Institute for Humane Studies Newsletter *Institute Scholar*, vol. 6, no. 1 (1986): 7.

[4] On this "Apriori of Argumentation," see K.O. Apel, *Transformation der Philosophie*, vol. II (Frankfurt/M.: Suhrkamp, 1973).

[5] In connection with the hermeneutical movement, the phrase *intellectual permissiveness* was coined by Henry Veatch in his essay "Deconstruction in Philosophy: Has Rorty Made it the Denouement of Contemporary Analytical Philosophy?" *Review of Metaphysics*, 39, December 1985.

[6] McCloskey asks: "[Do we not] need something . . . besides the mere social fact that an argument proved persuasive?" No, he counters, "talk against talk is self-refuting. The person making it [i.e., raising the preceding question] appeals to a social, nonepistemological standard of persuasiveness by the very act of trying to persuade someone that mere persuasion is not enough" (pp. 38–39).

Ironically, however, this argument does *not* prove his point. On the contrary, the argument can be said to be persuasive only because a self-contradictory position is considered to be false, and not regarded as false because it has been agreed upon. Otherwise, if I did not agree, would not the argument have to be considered false?

[7] On the inseparable connection between language and action, see esp. Ludwig Wittgenstein, *Philosophische Untersuchungen*, in *Schriften*, vol. I (Frankfurt/M.: Suhrkamp, 1963).

[8] On this, see also H. Veatch (note 5), esp. p. 319f.

[9] It is by no means an accident, then, that advocates of every conceivable political ideology can be found among the hermeneutidans. The creed goes with libertarianism and anarchism (McCloskey and Feyerabend), with socialism (Ricoeur and Foucault), and with fascism (Heidegger) as well as with, in most cases, middle-of-the-roadism. Gadamer—the special hero of Don Lavoie and the George Mason University hermeneuticians and one of the murkiest "thinkers" of them all, who manages to fill hundreds of pages without saying anything and who rambles endlessly about interpreting without ever actually interpreting any text in an intelligible way (witness his masterpiece, *Wahrheit und Methode*, Tübingen: Mohr, 1960; English transl., 1975)—

successfully advanced his career under Nazism, communism, and liberal democracy. On his philosophy and his life as a vivid illustration of the meaning of hermeneutics, see the brilliant essay by Jonathan Barnes, "A Kind of Integrity," *London Review of Books*, November 6, 1986; see also David Gordon, "Hermeneutics vs. Austrian Economics," Occasional Paper (Ludwig von Mises Institute, Washington, D.C., 1986).

[10] On the absolutist, a priori foundations of ethics, see Hans-Hermann Hoppe, "From the Economics of Laissez Faire to the Ethics of Libertarianism," in *Man, Economy and Liberty*, Llewellyn H. Rockwell and Walter Block, eds., Auburn, Ala.: Ludwig von Mises Institute, 1988; Hoppe, *Eigentum, Anarchie und Staat*, Opladen: Westdeutscher Verlag, 1986. Ethical absolutism as much as methodological absolutism is very much in disrepute. T.W. Hutchison (*The Politics and Philosophy of Economics*, New York: New York Press, 1981, esp. pp. 196–97) goes so far as to smear everyone committed to such a position as a dangerous, potential dictator—revealingly, without ever going to the trouble of explaining what the ethical or methodological principles *are* whose a priori grounding allegedly implies such a threat. Instead, pluralism—ethical and methodological—is what the enlightened person today professes. Only such pluralism, it is said, permits tolerance and freedom. (See as another typical pluralist Bruce Caldwell, *Beyond Positivism*, London: Allen & Unwin, 1982, chapter 13.) Must it be stressed that this doctrine is entirely fallacious? Without a priori foundation, pluralism is itself just another unfounded ideology and there is no reason to adopt it rather than any other one. Only if a priori valid reasons could be given for adopting pluralism could it claim to safeguard tolerance and freedom. A pluralism that would be merely one of plural values would actually be destructive of both. See on this in particular Henry Veatch, *Rational Man: A Modern Interpretation of Aristotelian Ethics* (Bloomington: Indiana University Press, 1962), pp. 37–46. As contrasted to our modern pluralists, Benito Mussolini understood all this quite well. Veatch cites him on p. 41: "From the fact that all ideologies are of equal value . . . the modern relativist infers that everybody has the right to create for himself his own ideology and to attempt to enforce it with all the energy of which he is capable."

[11] In defense of the idea of synthetic a priori propositions, see A. Pap, *Semantics and Necessary Truth* (New Haven: Yale University Press, 1958); B. Blanshard, *Reason and Analysis* (LaSalle, Ill.: Open Court, 1964); P. Lorenzen, *Methodisches*

Denken (Frankfurt/M.: Suhrkamp 1968); P. Lorenzen, *Normative Logic and Ethics* (Mannheim: Bibliographisches Institut, 1969); F. Kambartel, *Erfahrung und Struktur* (Frankfurt/M.: Suhrkamp, 1968); F. Kambartel and J. Mittelstrass, eds., *Zum normativen Fundament der Wissenschaft* (Frankfurt/M.: Athenaeum, 1973); Ludwig von Mises, *Human Action* (Chicago: Henry Regnery, 1966); Murray N. Rothbard, *Man, Economy, and State* (Los Angeles: Nash, 1971).

[12] On the faulty reason for the use of such labels, see note 10. Recently their use has also become increasingly popular among Austrians such as Mario Rizzo and Don Lavoie in order to characterize and distance themselves from the Mises-Rothbard school within the tradition of Austrianism.

[13] Ludwig von Mises, *Epistemological Problems of Economics* (New York: New York University Press, 1981); Mises, *Human Action*, (Chicago: Henry Regnery, 1966); Mises, *Theory and History* (Washington, D.C.: Ludwig von Mises Institute, 1985); Mises, *The Ultimate Foundation of Economic Science* (Kansas City: Sheed Andrews and McMeel, 1978); Murray N. Rothbard, *Man, Economy, and State* (Los Angeles: Nash, 1971); Rothbard, *Individualism and the Philosophy of the Social Sciences* (San Francisco: Cato Institute, 1979); Rothbard, "Praxeology: The Methodology of Austrian Economics," in Edwin Dolan, ed., *The Foundations of Modern Austrian Economics* (Kansas City: Sheed & Ward, 1976).

[14] London: Macmillan, 1932.

[15] Cambridge, England: Cambridge University Press, 1975.

[16] Lionel Robbins, just as the earlier Austrians Carl Menger and Eugen von Böhm-Bawerk, admittedly does not use the term *a priori*, but it should be sufficiently clear from his arguments as well as his frequent, approving references to Mises (who does) that Robbins actually *means* to provide an a priori justification of the basic propositions and theorems of economics.

The aprioristic character of economic propositions is explicitly stressed also by Frank H. Knight in "What Is Truth in Economics," in *On the History and Method of Economics* (Chicago: University of Chicago Press, 1956).

For those familiar with the tradition of rationalist philosophy, it hardly needs to be shown that the claim of having produced an a priori true proposition does *not* imply a claim of being infallible. No one is, and rationalism has never said anything to the contrary. Rationalism merely argues that the

process of validating or falsifying a statement claiming to be true a priori is categorically different from that of validating or falsifying what is commonly referred to as an empirical proposition. However, since McCloskey does seem to think that rationalism assumes infallibility and, hence, that the fact (triumphantly cited on pp. 33–34) that even in as pure a science as mathematics some alleged water-tight arguments have turned out to be inconclusive after all, constitutes proof of a fundamental flaw in rationalism—assuming here in McCloskey's favor that something such as fundamental flaws can exist at all in the absence of any truly objective standard—this point needs to be stressed here. Revisions of mathematical arguments are themselves a priori. They show only that an argument thought previously to be a priori true is not.

[17] His description of Marxist economic methodology, on the same page, is not much better.

[18] Karl R. Popper, in order to distinguish his falsificationism from the verificationism of the early Vienna Circle, prefers to label his philosophy "critical rationalism." To do so, however, is highly misleading if not deceptive, much like the common U.S.-practice of calling socialists or social democrats "liberals." For in fact, Popper is in complete agreement with the fundamental assumptions of empiricism (see the following discussion in the text) and explicitly rejects the traditional claims of rationalism, i.e. of being able to provide us with a priori true empirical knowledge in general and an objectively founded ethic in particular. See, for example, his "Why Are the Calculi of Logic and Arithmetic Applicable to Reality," in Karl R. Popper, *Conjectures and Refutations* (London: Routledge & Kegan Paul, 1969), where he advances the traditional empiricist thesis that "only if we are ready to accept refutations do we speak about reality" (p. 212) and "refutes" the idea of the rules of logic and arithmetic being laws of reality by pointing out that "if you put 2 + 2 rabbits in a basket, you *may* soon find seven or eight in it" (p. 211). For a correct placement of Popper's philosophy within the general framework of empiricism, see the sovereign discussion by a leading analytical philosopher, W. Stegmueller, *Hauptstroemungen der Gegenwartsphilosophie*, vol. I (Stuttgart: Kroener, 1965), chapters 9–10.

In fact, it is only fair to say that it is Popper who contributed more than anyone else to persuading the scientific community of the modernistic, empiricist-positivist worldview. In particular, it should be emphasized that it was Popper who is responsible for

Hayek's and Robbins' increasing deviations from their originally much more Misesian methodological position. See on this Lionel Robbins, *An Autobiography of an Economist* (London: Macmillan, 1976); Friedrich A. Hayek, "The Theory of Complex Phenomena," in Hayek, *Studies in Philosophy, Politics and Economics* (Chicago: University of Chicago Press, 1964); Hayek, "The Pretence of Knowledge," in Hayek, *New Studies in Philosophy, Politics, Economics and the History of Ideas* (Chicago: University of Chicago Press, 1978), esp. p. 31f. See also Hayek's "Einleitung" to Ludwig von Mises, *Erinnerungen* (Stuttgart: Fischer, 1978), and his "Foreword" to Ludwig von Mises, *Socialism* (Indianapolis: Liberty Fund, 1981).

[19] Terence W. Hutchison, *The Significance and Basic Postulates of Economic Theory* (London: MacMillan, 1938); Milton Friedman, "The Methodology of Positive Economics," in Friedman, *Essays in Positive Economics* (Chicago: University of Chicago Press, 1953); Mark Blaug, *The Methodology of Economics* (Cambridge, England: Cambridge University Press, 1980).

[20] See on this the excellent discussion in Martin Hollis and Edward J. Nell (note 15), "Introduction."

[21] Chicago: University of Chicago Press, 1970.

[22] See on this also the trenchant observations of Mises, *Human Action*, p. 872f., "Economics and the Universities."

[23] The correct nomenclature is "Herr Professor Doktor."

[24] See Imre Lakatos and Alan Musgrave, eds., *Criticism and the Growth of Knowledge* (Cambridge, England: Cambridge University Press, 1970). Empiricists such as Blaug (note 19), p. 17ff., argue that Popper actually realized the possibility of "immunizing stratagems" yet "solved" this problem and thus escaped relativism and skepticism. Nothing could be further from the truth. It is correct that Popper has always been aware of the possibility of immunizing one's hypotheses from falsification. (See his *Logik der Forschung*, Tübingen: Mohr, 1969, chapter 4, sections 19, 20.) His answer to such a threat to his falsificationism, however, can hardly be accepted as a solution. For he actually admits that he cannot show such "conventionalism" to be wrong. He simply proposes to overcome it by adopting the methodological convention of not behaving as conventionalists do. Yet how can such *methodological conventionalism* (i.e., a methodology without epistemological foundation) claim to establish science as a rational enterprise and to stimulate scientific progress? For such an assessment of Popperianism, see A. Wellmer, *Methodologie als Erkenntnistheorie*

(Frankfurt/M.: Suhrkamp, 1967). Thus, the preceding classification of Popperianism as relativism and skepticism.

[25] See Paul Feyerabend, *Against Method* (London: New Left Books, 1975); Feyerabend, *Science in a Free Society* (London: NLB, 1978).

[26] On the complex relation between Feyerabend and Popper, see H.P. Duerr, ed., *Versuchungen. Aufsaetze zur Philosophie Feyerabends*, 2 vols. (Frankfurt/M.: Suhrkamp, 1980).

[27] Strictly speaking, such an empirical refutation would not be entirely decisive and other, a priori reasons would be required to bring empiricism down. (On such reasons, see the discussion in the following text.) For empiricists could in turn challenge the validity of one's description of the facts as being indeed those of technological progress. They could, given their own framework, deny that one can know even simple facts, much less complex phenomena such as technological progress, to be so or so, because even the description of something as a fact would ultimately be hypothetical and hence one's alleged empirical refutation could not be considered crucial in any strict sense. See on the hypothetical character of basic propositions Karl Popper, *Logik der Forschung* (Tübingen: Mohr, 1969), chapter V and appendix X. Ironically, the hypothetical character of basic propositions invalidates Popper's claim, central to his entire falsificationist philosophy, that an asymmetrical relationship between verification and falsification exists (i.e., that one can never verify a hypothesis, but can falsify it). See on this A. Pap, *Analytische Erkenntnistherie* (Wien, 1955).

[28] See also Juergen Habermas, "Der Universalitaetsanspruch der Hermeneutik," in K.O. Apel et al., *Hermeneutik und Ideologierkritik* (Frankfurt/M.: Suhrkamp, 1976), esp. pp. 129–31.

[29] See Hans-Hermann Hoppe, *Handeln und Erkennen* (Bern: Lang, 1976).

[30] See on this W. Stegmueller, *Hauptstroemungen der Gegenwartsphilosophie*, vol. II (Stuttgart: Kroener, 1975), chapter 5, esp. pp. 523ff.

[31] See on this also Juergen Habermas, *Erkenntnis und Interesse* (Frankfurt/M.: Suhrkamp, 1968), esp. chapter II, sections 5–6; and K.O. Apel, *Die Erkaeren: Verstehen Kontroversein Transzendental-pragmatischer Sicht* (Frankfurt/M.: Suhrkamp, 1979), esp. p. 284.

[32] See on this also K.O. Apel, "Die Entfaltung der Sprachanalytischen Philosophie und das Problem der

Geisteswissenschaften," in Apel, *Transformation der Philosophie*, vol. II (Frankfurt/M.: Suhrkamp, 1973); Apel (note 31).

[33] See on this also Hans-Hermann Hoppe (note 29), chapter 3 and esp. pp. 62–65; also Immanuel Kant, *Kritik der reinen Vernunft*, in Kant, *Werke*, vol. II, W. Weischedel, ed., (Wiesbaden: Insel, 1956), esp. p. 226ff.

[34] It is worth emphasizing here that these remarks on the skeptical, relativistic conclusions of empiricism regarding the possibility of prediction also fully apply to Popperianism. Popper, with great self-assurance, claims to have solved—through adopting his falsificationist methodology—the Humean problem of induction and thereby to have reestablished science as a rational enterprise. (See in particular Karl R. Popper, *Objective Knowledge*, Oxford, England: Oxford University Press, 1972, p. 85ff.) Alas, this is simply an illusion. For how can it be possible to relate two or more observational experiences, even if they concern the relations between things that are perceived to be the same or similar, as *falsifying* (or *confirming*) each other, rather than merely neutrally record them as one experience here and one experience there, one repetitive of another or not, and leaving it at that (i.e., regarding them as logically incommensurable) unless one presupposed the existence of time-invariantly operating causes? Only if the existence of such time-invariantly operating causes could be assumed would there be any logically compelling reason to regard them as commensurable and as falsifying or confirming each other. However, Popper, like all empiricists, denies that any such assumption can be given an a priori defense (there are for him no such things as a priori true propositions about reality such as the causality principle would have to be) and is itself merely hypothetical. Yet clearly, if the possibility of constantly operating causes *as such* is only a hypothetical one, then it can hardly be claimed, as Popper does, that any particular predictive hypothesis could ever be falsified or confirmed. For then the falsification (or confirmation) would have to be considered a hypothetical one: any predictive hypothesis would only undergo tests whose status as tests were themselves hypothetical. And hence one would be right back in the muddy midst of skepticism. Only if the causality principle as such could be unconditionally established as true, could any particular causal hypothesis ever be testable, and the outcome of a test provide rational grounds for deciding whether or not to uphold a given hypothesis.

[35] See on this (Kantian) idea F. Kambartel, *Erfahrung und*

Struktur (note 11), chapter 3, esp. pp. 122f, 127,144; Hans-Hermann Hoppe (note 29), chapter 4, esp. p. 98.

[36] See on this Ludwig von Mises, *Human Action* (note 13), chapter 1.5; Carl Menger, *Grundsaetze der Volkswirtschaftslehre* (Vienna: Braumueller, 1871), pp. 3, 7ff.

[37] Though quite frequently mentioned as an empirical counterexample, it should be noted that quantum physics, or more precisely the indeterminacy or Heisenberg principle of quantum physics, correctly interpreted, is in accordance with this. What has been previously said does not preclude—and this is precisely the situation in quantum physics—that in order to experimentally produce a result, two or more measurement acts must be performed and that because any two separate actions can only be performed sequentially, the performance of the latter act of measurement might change the results of the former one, so that if this proves to be unavoidable, the results in question can only be predicted statistically and a deterministic explanation proves impossible. But even here each separate measurement act presupposes the validity of the constancy principle—otherwise, neither of them would have been performed; and the sequence of acts, too, presupposes constantly operating causes as it would otherwise be simply impossible to repeat two experiments in the field of quantum physics and state this to be the case. Moreover, the experience of quantum physics is in exact line with the preceding conclusion regarding the characteristic of causality as an action-produced phenomenon and as a necessary (known to be valid a priori) feature of reality. If causes can indeed only be measured and identified sequentially, by means of actions that have repercussions for each other, then they can, in principle, only be causes whose constant operation is of a probabilistic kind—and this, to be sure, can again be known to be true a priori. Quantum physics then only reveals that cases such as this are not merely conceivable, but do in fact exist. See on this F. Kambartel, *Erfahrung und Struktur* (note 11), p. 138ff.; also P. Mittelstaedt, *Philosophische Probleme der odernen Physik* (Mannheim: Bibliographisches Institut, 1968).

[38] *Human Action* (note 13), pp. 870–71.

[39] Mises correctly emphasizes that the decisive argument against causal predictions in economics must be the absence of "constant relations" in the field of human knowledge and actions. See, for instance, *Human Action* (note 13), p. 55f.

[40] See on the following Hans-Hermann Hoppe, *Kritik der*

kausalwissenschaftlichen Sozialforschung (Opladen: Westdeutscher Verlag, 1983); Hoppe, "Is Research Based on Causal Scientific Principles Possible in the Social Sciences," *Ratio*, XXV, no. 1, 1983.

[41] On this, see note 34.

[42] Interestingly, this proof has been first formulated by Popper in the preface of his *The Poverty of Historicism* (London: Routledge & Kegan Paul, 1957). However, Popper failed to realize that such proof actually invalidates the idea of a methodological monism and demonstrates the inapplicability of his falsificationist philosophy in the field of human action and knowledge. See on this Hans-Hermann Hoppe, *Kritik der kausalwissenschaftlichen Sozialforschung* (note 40), pp. 44–49; K.O. Apel, *Die Erklaeren: Verstehen Kontroverse* (note 31), pp. 44–46, note 19.

[43] See on this H. Albert, *Traktat ueher kritische Vernunft* (Tübingen: Mohr, 1969), esp. chapter 5. V, VI.

[44] Mises writes:

> The essence of logical positivism is to deny the cognitive value of a priori knowledge by pointing out that all a priori propositions are merely analytic. They do not provide new information, but are merely verbal and tautological. . . . Only experience can lead to synthetic propositions. There is an obvious objection against this doctrine, viz., that this proposition is in itself a—as the present writer thinks, false—synthetic a priori proposition, for it can manifestly not be established by experience. (*The Ultimate Foundation of Economic Science* [note 13], p. 5.)

It is remarkable to notice how utterly helplessly empiricists react to such arguments establishing the case for synthetic a priori propositions. Witness, for instance, Mark Blaug, *The Methodology of Economics* (note 19), pp. 91–93, where he engages in an all-out smear attack on Mises ("Mises' . . . later writings on the foundations of economic science are so cranky and idiosyncratic that we can only wonder that they have been taken seriously by anyone," p. 93) without presenting a single argument and without noticing how strangely his self-assuredness and the apodicticity with which he presents his antiapriorist methodological pronouncements contrast with his very own professed falsificationism. The same discrepancy

between, on the one hand, a complete lack of argument and, on the other, apodictic arrogance, also marks his "discussion" of Hollis and Nell's *Rational Economic Man* (note 15) on pp. 123–26.

[45] Empiricists, of course, would brand such definitions as tautological. Yet it should be perfectly clear that the preceding definition of action is of a categorically different nature than a definition such as "*bachelor*" meaning "unmarried man." Whereas the latter is indeed a completely arbitrary verbal stipulation, the propositions defining action are most definitely not. In fact, while one can define anything as one pleases, one cannot help but make the conceptual distinctions between goals and means and so on as "defining something by something" would itself be an action. It is thus contradictory to deny, as empiricism-positivism does, the existence of "real definitions." Hollis and Nell (note 15) observe "Honest definitions are, from an empiricist point of view, of two sorts, lexical and stipulative" (p. 177). But

> When it comes to justifying [this] view, we are presumably being offered a definition of *definition*. Whichever category of definition the definition falls in, we need not accept it as of any epistemological worth. Indeed, it would not be even a possible epistemological thesis, unless it were neither lexical nor stipulative. The view [then] is both inconvenient and self-refuting. A contrary opinion with a long pedigree is that there are "real" definitions, which capture the essence of the thing defined. (p. 178)

See also B. Blanshard (note 11), p. 268f.

[46] Hollis and Nell (note 15, p. 243) contend that not "action" but "reproduction of the economic system" is the primary concept on which economics, conceived of as an a priori science, rests. Noticing this disagreement among apriorists has led Caldwell (note 10, p. 131ff.) to the curious conclusion that something must be wrong with apriorism and to then advocate a do-not-commit-yourself-to-anything pluralism. (See note 10.) Yet such reasoning is about as conclusive (or, rather, inconclusive) as inferring from the fact that disagreements among people regarding the validity of certain empirical propositions exist, that no empirical facts exist and hence no empirical science is possible. Indeed, Caldwell's conclusion is even more curious, given the fact that in the dispute at hand, the solution is as clear

as daylight: Whatever an economic "system" might be, it can certainly not exist or be able to reproduce itself without acting people. Moreover, to say that "reproduction of the system" is the primary concept for economic analysis is plainly contradictory—unless it were simply synonymous with saying that action is such a concept—because saying so would in fact presuppose an actor saying it.

[47] On the empiricist position regarding the law of demand, see Mark Blaug (note 19), chapter 6.

[48] Moreover, why would the argument not also go the other way? If, empirically, the law of demand does not seem to work for some goods, why would not analogy lead us to question it for those in which it does? (I owe this argument to David Gordon.)

[49] See on this Ludwig von Mises, *Human Action* (note 13), p. 124.

[50] Robert Nozick ("On Austrian Methodology," in *Synthese*, 36, 1977) believes Austrians to be inconsistent in (1) claiming that actions invariably show preference (and never indifference) and (2) employing the idea of "homogeneity" and "*equal* serviceability" of goods in their formulation of the law of marginal utility (p. 37ff.). However, such a charge would only be correct if "preference" and "indifference" were both considered categories of the same type. This has been correctly pointed out by Walter Block ("On Robert Nozick's 'On Austrian Methodology'," *Inquiry*, 23, 1980), who insists that "indifference" is not, unlike "preference," a *praxeological* category. Yet his classification of indifference as a "psychological category" instead (p. 424) is also incorrect. In fact, "sameness" is an *epistemological* category: humans are knowers *and* actors; they only act because they know, and they only know because they act. That something is the same (or different) than something else we know qua actors who *know*. (Indeed, "sameness" is a universal epistemological category in that one could not even say anything, for instance about actions, without the notion of something being an instance of some particular *type* of thing.) That something that is known to be the same can never actually be treated with indifference we know qua knowers who *act*. The law of diminishing marginal utility then is a law regarding knowers who *act*.

[51] See Ludwig von Mises, *Human Action* (note 13), p. 125; M.N. Rothbard, *Man, Economy, and State* (note 13), p. 268ff.

[52] Empiricists will complain that such a formulation of the

law will make it tautological and unfalsifiable. Both classifications are false. Clearly, the discovery of a new, more highly valued use for, for instance, a unit of a given good, i.e. the event "increase in demand," and the event "a higher price is paid for it" are two conceptually distinct events, and to logically relate such events then is a categorically different thing than to stipulate that "*bachelor* means 'unmarried man'." (See also note 45.) That the use of ceteris paribus clauses in economics implies an immunization strategy, on the other hand, would be true only if economic propositions were indeed concerned with contingent empirical causal laws. In the natural sciences, where laws do have this status, such complaint would be appropriate—yet there, interestingly enough, one hardly ever finds ceteris paribus clauses. In the natural sciences, predictive hypotheses of the form "If . . . then" are in fact treated as applicable whenever the if-condition is given, no matter what else is or is not the case. And it is only because this is done that such hypotheses can be validated at all. (There is only one way of testing hypotheses about contingent empirical causal relations: in and through factual applications.) If, contrary to this, one were to demand that in order to apply a hypothesis or to repeat its application, a *full* description of the world at the moment of application be given, or that *everything* be the same in the second application as in the first (beyond the sameness of the condition explicitly stated in the if-clause), the hypothesis would become inapplicable and thus empty for the practical reason that such a demand would literally involve describing all of the universe, and for the theoretical reason that no one at any point in time could possibly know what all the variables are that make up this universe (as this question remains open to new discoveries).

The situation is entirely different in economics, and it is curious indeed that this should not have been realized—given the facts that the use of ceteris paribus clauses in the empirical sciences would render such sciences futile and that such clauses are nonetheless constantly employed in economics. Why, then, not give serious consideration to the idea that economics might be an altogether different science? Indeed, as we have seen, this is the case. Economic propositions can be validated independently of any factual application as implied (or not implied) in the incontestable axiom of action plus certain situations and situational changes described in terms of the categories of action. Yet then ceteris paribus clauses are completely harmless. In fact, their use simply serves to remind us

that the deduced consequences only follow if the situation is indeed as described (and not a logically praxeologically different one), and that it is impossible in all actual applications of economic theorems (i.e., whenever the situation analyzed can be identified as real) to hold the ceteris experimentally constant (as the "holding constant" then can, in principle, only be done logically, by means of thought-experimentation. See on this also Hans-Hermann Hoppe, *Kritik der kausalwissenschaftlichen Sozialforschung* (note 40), p. 78–81).

A Look at *Subjectivism, Intelligibility and Economic Understanding: Essays in Honor of Ludwig M. Lachmann on his Eightieth Birthday*

Walter Block

In his preface to this volume, Israel Kirzner "draw[s] attention to the altogether special contributions made by Professor Lachmann to the creation and growth of the Austrian Economics Program at New York University" and to his "crucially important part in the remarkable revival of interest in Austrian economics" (p. viii)[1] in the profession as a whole. This is altogether correct. Lachmann's long and distinguished written contribution to the praxeological school and especially his arrival on the scene at New *York* University (NYU) were absolutely pivotal; in the absence of the role he played, there is a great question as to whether or not there would have been any Austrian revival at all.[2] Professor Lachmann functioned as a gadfly. With his iconoclastic views and his continual criticism of all received Austrian axioms and doctrines, he served as a constant challenge, spur, and inspiration—not only to his colleagues and students at NYU, but also to all those such as myself who had the good fortune to come into contact with him.

This is why it is all the more highly unfortunate that a book committed at least in part to the renaissance of the Austrian school makes, with just a few honorable exceptions, so little contribution to that estimable goal. While the Lachmann *Festschrift* is indeed partially dedicated to the recent rise of the praxeological school of thought, it is devoted to an even greater degree to the life and work of Professor Lachmann himself. As a result, it is not so much a praxeological book as a Lachmannian one. Kirzner, in his preface, says as much: "Despite Ludwig Lachmann's participation in this renaissance of Austrian economics, the present volume is not a collection of Austrian papers" (p. viii).

However, the present volume has been widely hailed as the hermeneutical response to Austrianism, as "the best thing written since *Human Action*," and as the ultrasubjectivist new paradigm or model, the path to be followed by the "new" Austrian movement. This, as we shall see, is unwarranted. As well, it is important to put to rest even the more modest view that "This book can be recommended to serious students wishing to know what Austrian economists are thinking about today."[3]

On the contrary, this book is a collection of highly heterogeneous essays, the overwhelming majority of which have nothing at all to do with praxeology. Some are written by mainstream economists in almost complete ignorance of the Austrian tradition; as a result, their views are at best irrelevant to this school of thought. Included under this rubric are the contributions of Boland, Hicks, Langlois (who discusses game theory), Lewin, and Torr (who grapples with the Rational Expectations and Ricardian schools, but treats neither from an Austrian perspective). The institutionalists are represented by Perlman, who attempts no less a task than to equate Austrianism and the German Historical school, against which Menger and Mises waged a decades-long intellectual battle. The hermeneutidans (Ebeling and Lavoie) undertake no less in behalf of their philosophy with equal success. Then there are those who uphold the post-Keynesian system (Egger and Kregel), without, unfortunately, deigning to reply to the Austrian critique. There are as well the nihilists (Fehl, High, and Strydom), whose goal is to deny the validity of equilibrating forces. Fehl, for example, goes so far as to claim that not only is the market order impossible, it is undesirable too (p. 79).[4] There are also the obscurantists (Addleson and Shackle) about whose essays it is impossible to say anything coherent.

Quite apart from the fact that most of the book is devoted to non-Austrian viewpoints, there is also the shortcoming that many of the tracts are simply fallacious, even on an elementary level. Egger, for example, appears to call into question the notions of time preference, degrees of roundaboutness, and structure of production, likening them to "primitive concepts which have brought Austrian theories of capital and the business cycle much scorn" (p. 64). He does so without defending this position against the mainstream Austrian analysis, which sees these concepts as a basic building block of praxeology. Boland, a methodologist, appears not to recognize any incompatibility between Walrasianism and market process (32–33). Strydom conflates

subjectivism and market process. And Rizzo and O'Driscoll reprise their book (1985) without taking into account Baird's many fundamental and telling criticisms.[5]

Out of a total of twenty-three papers, only six are both relevant to Austrian economics and free from multitudinous and egregious errors: those written by Boehm, Garrison, Hutchison, Kirzner, Mittermaier, and White. These authors are the honorable exceptions; they make real and important contributions to praxeology. Their work may truly be taken as indicative of what Austrian economists are thinking about today.

Space permits a detailed analysis of only a small proportion of this material, and it is to this task that I now turn. I begin with two articles that are highly critical of Austrian economics.

High

Jack High's "Equilibration and Disequilibrium in the Market Process" is an attempt to "defend Lachmann's thesis that the marketplace is a disequilibrating as well as an equilibrating process" (p. 112). The article is an interesting one, but cannot successfully maintain that thesis.[6]

Professor High gives an accurate and insightful account of the evenly rotating economy (ERE), as utilized by Mises, Rothbard, and Kirzner. He asks: "If the market is always moving toward an evenly rotating state, why doesn't it ever get there?" and cites the traditional Austrian answer: because "the end state is always moving," due to exogenous changes in tastes, technology, and resources (p. 113). But our author rejects this, on the ground that it unnecessarily and artificially limits the scope of economics. On the contrary, asserts High, these phenomena are endogenous: "We know that an open market for ideas will lead people to change their value scales, that the prospect of profits will induce entrepreneurs to seek out new technologies and uncover new resources" (p. 113). Further, to take these changes as exogenous to the market "is to take facts, the knowledge of which should be explained, as given" (p. 114), something Hayek forcefully and eloquently warned against.

The problem with this line of argument, however resourceful and inventive, is that it multiplies the scope of economics way beyond all reasonable bounds. To be sure, changes in tastes, technology, and resources "should be explained," but why must this be done by economists? At present, knowledge of consumer tastes is the domain of psychologists, physiologists, or market

researchers; for analysis of technology, we defer to the physicist, chemist, or engineer; nor does the mere armchair economist delve into the arcane mysteries of resource discoveries and development, wisely leaving these matters to the geologist. I am as receptive as the next dismal scientist to the expansion of our turf (see Becker [1971, 1976]; Bernholz and Radnitzky [1986]), but this idea of High's would appear to be imperialistic to a degree so far undreamt of.

Nor is this savaging of the intellectual division of labor the only drawback in the scheme proposed by Professor High; it also has a serious logical flaw. He cites Lachmann as stating: "To speak here of 'random shocks' would be to profess ignorance where we have knowledge" (p. 113).[7] Of course we have knowledge of tastes, technology, and resources. But this is only as *laymen*, not professionals. Using this as a criterion, we know *something* about *everything*.[8] It is therefore not merely the case that tastes, technology, and resources happen to be exogenous to economics, as per the views of those stick-in-the-mud Austrians Mises, Rothbard, and Kirzner. High is logically tied to the rather amazing claim that there simply could not be anything at all exogenous to economics! According to his reasoning, even a flood, a tornado, a hurricane, or a volcano would not be exogenous to economics. This would be to profess ignorance where we have knowledge. For do we not know something about floods, tornados, hurricanes, and volcanos? We most certainly do. In addition to the knowledge that meteorologists can provide about these phenomena, we know that they exist.

As part of his overall thesis, Professor High next makes the claim that "the same active mental processes which are taken to adjust to change once it has occurred [entrepreneurship], will also originate change" (p. 115). In this, High is influenced by Schumpeter's views of entrepreneurship, namely that the profit-seeking businessman will destabilize the economy. Unfortunately, however, he nowhere mentions Kirzner's utter and complete evisceration of Schumpeter on this point. This is indeed puzzling, since High's footnote 7 cites this literature, so he can hardly be unaware of it. All that could be done in refutation of this viewpoint would be to recite the brilliant Kirznerian analysis. Since this is readily available, and it is beyond the ability of the present author to improve on it, I shall content myself with referring the reader to it. I must note, however, that it is highly disappointing that the author of the chapter under discussion chose to defend Schumpeter against

Kirzner without specifically addressing the points made by the latter against the former.

High places great emphasis on the fact that "money, monetary calculation, business firms, and advertising emerge and persist in the market." This, in his view, "belies the claim that the market is a strictly equilibrating process" (p. 117). But such occurrences are readily explained by the existence of exogenous forces that continually keep the market in a state of flux and render our knowledge obsolete. This is why we still have need for these institutions that promote and economize on information —despite the fact that the market is strictly an equilibrating process.

Surprisingly, after fighting mightily against equilibrating forces as a demonstration "that order will emerge from decentralized decision making" (p. 117) and as an organizing tool for economists, Professor High seizes upon profit-seeking behavior for this very purpose. Our author gives an insightful and eloquent account of how the entrepreneurial search for wealth helps in the development of the complex economy, and he even contributes to a determination of the extent of the division of labor. But this is still highly problematic, at least on the theory he propounds, because it is difficult to imagine a more equilibrating phenomenon than the desire to capture profits.

Further, we could use the very arguments employed by High in criticizing the Austrian view, in opposition to his proposal that profit seeking is disorderly. For example, why is it that profits have not by now been completely competed away? High could not reply that this is due to exogenous shocks to the system, for he is committed to the view that there are no such things. Moreover, what about the destabilizing (read: disorderly) aspects of profit seeking? Why has Schumpeter been so suddenly and unceremoniously been shoved out the back door?

I have interpreted High as attempting to defend the Lachmannian "kaleidic" hypotheses that there is no market tendency toward equilibrium. According to an alternative view, the implicit thesis underlying this chapter is that economics should be radically redefined. Austrianism should be limited to a study of the evolution of institutions. All notions of equilibrium are erroneous and should be eschewed, to the extent that they imply an end state. Instead, economics should focus on describing patterns of evolution, with the Misesian monetary theory serving as a model.

If this interpretation is correct, there are several additional

difficulties with High's views. So radical a restructuring would make praxeology unrecognizable; even assuming the notion to have merit, why not define a new discipline (call it Highism or Lachmannianism) separate and distinct from Austrianism? There is also a failure to make a sharp enough distinction between Walrasian general equilibrium, which is inapplicable to reality, and a tendency toward equilibrium, which is not. Most important, we must underscore the Misesian point that all action is inherently aimed at achieving equilibrium.[9] The economic actor purposefully tries to remove a felt uneasiness, not to increase it. As well, Mises' monetary theory, just like the rest of his system, was praxeological, not evolutionary.

High's article is a welcome one in that it thoughtfully tries to show that disequilibrium is an integral part of the market. If the Austrian edifice is to be built sturdily, it will have to withstand such onslaughts as directed to it by this author. Thanks to him, it is now in a better position to do just that.

Lavoie

Professor Don Lavoie sets himself the herculean task of showing that Mises was really a closet hermeneutician. The first arrow in his "Euclideanism versus Hermeneutics: A Reinterpretation of Misesian Apriorism" is the claim that there is no strict dichotomization, in Mises, between theory and history.[10] And Lavoie's evidence for this rather dubious point? The fact that strict dichotomization between one thing and another is not equivalent to their isolation. He illustrates this by showing, quite correctly, that theory and history "are absolutely necessary for one another" (pp. 193–94).

But this will not do. First of all, this is a straw-man argument. No one has ever claimed, least of all Mises, that the absolute dichotomy between theory and history implies that they must always and ever be kept completely apart. On the contrary, Mises (1969) should serve as strong evidence that the two can and indeed have been brought together. Second, let us argue from analogy: in like manner, we could say, there is a strict logical dichotomy between normative and positive economics, and a biological distinction to be drawn between male and female. Yet it would be ludicrous to demolish the argument that therefore each of the members of these two pairs ought to be held in complete isolation from one another—if for no other reason than no one has ever made any such bizarre claim. We

must therefore reject this view of Lavoie's and insist that for Mises, not only does there exist a deep chasm between theory and history, but that the two concepts, no matter how different, are still complementary.

The next shot across the bow of the good ship Mises is Lavoie's "analysis" of praxeology and apriorism. Consider his charge concerning "the antagonism to empirical work" (p. 195). The problem, here, is an equivocation. Given that for Mises, economics is a logically deductive system, akin to mathematics, no empirical finding, in and of itself, could possibly overturn a praxeological conclusion. Naturally, under these circumstances, a "hostility" to empirical work would appear to arise. But this is true only if the regression equations are interpreted as *testing* an a priori law. On the contrary, there was not an aversion to empirical work per se, as shown by Mises' warm regard for economic history as providing an illustration, not a test, for the theoretical findings of economics.

Lavoie also misinterprets, indeed confuses, "dogmatism and rigidity . . . and [a] confident air of completeness and apodictic certainty" (p. 195) with the Misesian methodology of praxeology. The former is a psychological state, the latter a philosophical category, and no direct translation from one to the other is justified. That is, one can be a deductive economist and yet hold all one's findings in a timid, tentative manner. And the same goes for mathematicians, who also practice an apodictic calling. Alternatively, one can be dedicated to positivism, falsifiability, and empirical testing, while yet being personally obnoxious, dogmatic, rigid, and deaf to all criticism. No facile deduction from the economic methodology employed by a scholar to his psychological state is thus justified.

Lavoie then criticizes Mises for holding the view that "No historical account can ever cause us to go back and reconsider our a priori theory, thus suggesting that theories are somehow epistemically privileged and safely dichotomized from history. This view makes economics seem too different from the natural sciences" (p. 196). Again, there is a confusion between economics and psychology. There are numerous phenomena that cause people to go back and reconsider. It could be a sunset, a Mozart opera, or an intellectual unease that just comes upon a person; it all depends upon the individual in question. In some cases, of course, there is nothing that can lead a person to reconsider a pet theory. But this issue must be sharply distinguished from a subtly different one. If the theory seems to

be out of step with the facts, must we necessarily renounce the theory? Suppose, for example, that an empirical finding determines that an increase in the minimum wage level led to a *decrease* in the teen unemployment rate, or that the imposition of a strict rent-control ordinance called forth a vast building spree of rental housing. Would economists necessarily be forced to reject their typical views of such legislation?[11] To ask this question is to answer it. The point is, there is a vast distinction to be drawn between the natural sciences and the human sciences. It is only in the latter case that motives and purposes are comprehensible to us.

The George Mason University professor then goes on to designate as "hermeneutic" the insight that economic explanation must be grounded in individual purposes (p. 196). If we allow him to get away with this bit of definitional legerdemain, we must indeed conclude with him that Mises was a hermeneutician, because if there was anyone who insisted that praxeology be based on the purposes of the individual, it was Mises.

Perhaps the most interesting part of the Lavoie contribution is his analysis of the textual evidence. He starts out well, citing Mises in several of his more "Euclidean" utterances. His first criticism is that Mises is a "bit free" (p. 200) in attributing certainty and incontestability to his pronouncements. Two responses are in order here. First, there is a failure to distinguish the claim that economics is an apodictically certain enterprise from the one that any particular economist, such as Mises, is apodictically certain. In the enumerations of Mises' words in his text, our author indicates only the former declaration, not the latter. Second, if Lavoie wishes to attack Mises for expressions of excessive certainty, it is incumbent upon him not merely to specify instances where he does indeed express certainty, but where these expressions are in fact excessive. Namely, he has to show him to be *wrong*, in at least one instance. For example, let us suppose that Mises, as mathematician, had claimed not only that "2 + 2 = 4" was apodictically certain in mathematics, but that he, Mises, was himself indubitably certain about the truth of this equation. Were Lavoie to criticize Mises for this, on the grounds that he was *excessively* certain about this, it would be insufficient to merely charge the use of certainty; he would have to show it to be *false*. Otherwise, although there would indeed be certainty, it would not be shown to be excessive.

Next, Lavoie objects to the exclusivity that Mises claims for

the focus of praxeology on human purposiveness (p. 201). But this does not "suggest an insulation from criticism." Were this true, then Mises, or his followers, when presented with a criticism, would merely have dismissed it, without giving reasons. Interestingly enough, Lavoie is unable to substantiate his charge of "insularity," although he is fully familiar with the Austrian literature. Nor does he deign to discuss or even refer us to a valid economics that does *not* ground itself on individual purpose. Neoclassical macroeconomics, for instance, has virtually entirely banned consideration of individual purpose from its realms. Is Lavoie claiming that this mode of thought can make a contribution to our knowledge of economic reality?

At last we arrive at the nub of the Lavoie thesis: Mises as hermeneutician. Our author starts off with a quote from Mises where he states, quite reasonably, that "Reasoning and scientific inquiry can never bring full ease of mind, apodictic certainty, and perfect cognition of all things" (p. 203). After that, the analysis goes sharply downhill. Lavoie first sees in this modest statement a contradiction with previously cited "Euclidean" avowals of Mises. But he again fails to contend with the distinction between psychology and economics. One can, as Mises does, adopt a modest attitude toward one's own abilities, even in behalf of all mankind, and still noncontradictorily demonstrate the apodictic nature of an intellectual discipline such as geometry or economics.

Second, Lavoie's treatment is marred by his continued and unabated gratuitous attacks on poor old Euclid, without benefit of citation. From whence comes "Euclidean uncriticizability" or "close it off in Euclidean fashion from rational criticism" (p. 203)? When and where did Euclid (or Mises, for that matter) claim that all criticism of their views was per se illegitimate?

Third, the "hermeneutic a priori" would appear to differ from its Euclidean counterpart only in that the latter, but not the former, is "immune to criticism" (p. 204). Certainly, part of the Misesian defense for the a priori nature of the praxeological axioms was that those who denied this would "contradict themselves in practice by arguing their behavioralistic case to other 'minds' in the scientific community" (p. 204).

Fourth, his case is marred by a needless bow to pragmatism. Contrary to Lavoie, the assumption of intersubjectivity *is* based on firm philosophical foundations. Were it not, what would it mean to assert that "this procedure works in everyday life" (p. 206)? Without the philosophical grounding, we would have no

reason to reject the hypothesis that all other people are just cleverly constructed robots.

As for the remainder of the chapter, it consists of Lavoie citing numerous modest expressions by Mises and, by Lavoie's torturing them, teasing out a hermeneutical implication, solely on the grounds of the constraint of these statements.[12] He only succeeds in showing, contrary to his previous assertions, that Mises was a careful, moderate, and cautious economist.[13]

Boehm

"Time and Equilibrium: Hayek's Notion of Intertemporal Equilibrium Reconsidered" by Stephan Boehm is a welcome addition to the Austrian literature in general and to our knowledge of capital theory, interest rates, time, and their complex relationships. It also makes a significant contribution to history of economic thought, serving as a sort of secondary source material for, and clarifier of, Hayek's very turgid *The Pure Theory of Capital* (1941, 1975).

The author distinguishes authoritatively between Hayek's notion of equilibrium (intertemporal mutual plan compatibility) and the more mechanistic, static, and a temporal version still popular in the profession (pp. 20–21). He properly credits Hayek for strenuously resisting the widely accepted notion that capital is merely a "homogeneous substance" (p. 22) or an "amorphous mass" (p. 23) and instead insisting upon its heterogeneity. He criticizes the Arrow-Debreu equilibrium model from a Hayekian perspective, showing that the concept of "movement toward" an equilibrium makes no sense in the former case (p. 24). Most important, he places great emphasis on the importance of subjectivism in capital theory, on Hayek's success, and on Arrow-Debreu's failure to distinguish between the perspective of the human actor and that of the omniscient economist-observer (p. 25).

Further, Boehm is correct in focusing on something of an inconsistency that crops up in *Prices and Production* (1932). On the one hand, this book posits what is in effect an equilibrium model of the structure of production; on the other hand, Hayek attempts to show the destabilizing effects of government monetary policy. The difficulty is that, strictly speaking, the existence of money is incompatible with the certainty that underlies equilibrium. However, it is easy to make too much of this criticism. There is somewhat of a lack of appreciation that

the evenly rotating economy is used by Hayek merely as a heuristic device. One searches in vain in *Prices and Production* for the Rational Expectations type of confusion that would ascribe to the real world the existence of actual equilibrium.

As well, there is one other minor criticism that can be leveled against this chapter. Boehm mentions without demur that there might possibly be "no such thing as *the* rate of return or interest since there are as many rates as there are commodities" (p. 19). But why is there no profit-and-loss-inspired tendency for all these different rates to come together?

But these are minor quibbles with a superior product, which will repay, with great interest, the effort of reading it.

Garrison

Roger Garrison's contribution to the Festschrift, "From Lachmann to Lucas: On Institutions, Expectations, and Equilibrating Tendencies," is nothing short of magnificent. By creating a "tendency toward equilibrium spectrum" and then placing on it Lachmann ("never"), Mises-Hayek ("sometimes"), and Lucas ("always"), Professor Garrison does more to elucidate the views of the Austrian, the Rational Expectations, and the "kaleidic" schools of thought on the equilibrating tendencies in an economy than an essay of ten thousand words or more could have done. Through this astute and innovative feat, moreover, the author of this chapter is able to once again establish praxeology as the moderate and reasonable view that takes on an intermediate position between two extremist beliefs that might otherwise have appeared more attractive than they are. (See Garrison [1982].)

Garrison uses Lachmann's concern with future expectations to cast doubt on Lucas's assertion that the economy must always and ever be in equilibrium. He mobilizes the Mises-Hayek insight that on the free market, those who are better able to anticipate consumer demands will tend to have command over more and more resources and thus will be able to cast a disproportionate impetus toward equilibrium. This undercuts the extreme Lachmannian skepticism that there can be even a tendency toward equilibration.

Further, with this spectrum device, the Auburn University professor can focus attention on the crucially important role played by institutions. The Hayekian criticism of Keynes is that there is not enough disaggregation in this system to allow for the equilibrating role of entrepreneurial success. But this can only

occur, shows Garrison, in a marketplace where businessmen can reap the reward of their superior insight. Paradoxically, or perhaps not so paradoxically, Keynesian-inspired government "stabilization" measures can actually retard movements toward equilibrium. Says Garrison: "They nullify the market forces that give rise to equilibrating tendencies, thus causing the economy to perform in the very way that Keynes envisioned it" (p. 99).

Notwithstanding the numerous brilliant insights gracing this essay, there are two minor points upon which criticism can be offered. First, in the course of his quite proper formulation of the Hayekian theory of capital, Garrison asserts that "Successful investment over time requires that the investor's decisions be consistent *both with the subsequent decisions of other investors* and with the ultimate demands of the consumers" (p. 96, emphasis added).

If we interpret this unsympathetically, counterexamples are easy to come by. For instance, if one entrepreneur and he alone correctly forecasts consumer interest in, say, a hula hoop, then he will make more profit, not less, than if he is in accord with the decisions of other investors. To be sure, there is a sense in which it is true that not only must the thriving entrepreneur be attuned to the consumer, he must also act in concert with his fellow businessmen. For example, even if he correctly anticipates future demand, but no one else does, he may be so far out of step, even though correct in some ultimate sense, that the complementary factors of production may not be available. Sometimes this is called "being too far ahead of one's time." But even in this case it may not be necessary to be "consistent with the subsequent decisions of other investors." For it may be possible, if he is rich enough, for him to finance the production of not only the item in question, but also the complementary factors as well.

In such a case, his earnings would be even higher. It is only if this is beyond the capability of one single entrepreneur that Garrison's stricture will be correct.

Second, Professor Garrison maintains the position that "Investors who are able successfully to complete their projects gain command over greater quantities of resources. In turn, the subsequent decisions of these successful investors have increased weight in *determining the market rate of interest*" (p. 98, emphasis added). The difficulty here is that this would appear to be contrary to the Austrian pure time preference theory of interest-rate determination. Since our author is himself on record as

supporting this view (see Garrison, 1979; also Rothbard, 1962, chapter 6; Mises, 1966, pp. 479–523), we need not take time here to defend it. Of course, one might read the passage as claiming that since these investors will now have more money *qua consumer*, their own time preference will now be given a greater weight in interest-rate determination. If this were true, it would be unexceptionable. However, in the second sentence after the one just cited, Garrison quite clearly avers that it is "subsequent *investment* decisions by these investors" (p. 98, emphasis added) that constitute the operational factor involved.

But apart from these two minor problems, I must conclude that the Garrison chapter makes an important contribution to Austrian theory.

Hutchison

In "Philosophical Issues That Divide Liberals: Omniscience or Omni-nescience about the Future?" Terence Hutchison provides an insightful, detailed, and useful survey of the economic literature regarding assumptions of knowledge. He covers such schools of thought as the physiocrats, the French Enlightenment, the Utopians, the classical economists, the neoclassical, the Rational Expectationists, the institutionalists, the Austrians, and the neo-Austrians. In this brief (seventeen-page) essay, mention is also made of the following economists: Popper, Mises, Smith, Mandeville, Tucker, Galiani, Viner, Quesnay, Malthus, James Mill, Ricardo, McCulloch, J.S. Mill, Senior, Walras, Cairnes, Wieser, Robbins, Leslie, Nasse, Menger, Knight, Keynes, Hayek, Shackle, Lachmann, and Coase.

Not only is Professor Hutchison exhaustive, he is also largely correct in his analysis. Briefly, his thesis is that most economists and schools of thought have highly overestimated the knowledge possessed by the economic actor and have been altogether too ambitious in their claims in behalf of the economics profession. These "optimistic assumptions, or pretensions" were not made so much by Smith, Mandeville, Tucker, and Galiani, as they were by Quesnay, the physiocrats, both Mills, Ricardo, and McCulloch. The "perfectly competitive economy," beloved of the neoclassical school, and Walras, along with the Rational Expectationists, "mathematical and quantitative methods," and the assumption of full or perfect knowledge all come in for some particularly heavy criticism in terms of claiming more than is justified or being particularly unrealistic.

Our author is especially and quite properly critical of the notion that "even if ignorance might be conceded as an important characteristic of individuals, knowledgeable or even omniscient governments could correct or compensate for their errors and maintain an equilibrium" (p. 128).

If Hutchison is derogatory about the overestimation of knowledge in economics, this is also true for his views regarding its underestimation. In this context he castigates the neo-Austrian views of Shackle and Lachmann: "They seem . . . to depend on assumptions, or arguments, which constitute too extreme a reaction from conventional, utopian superationalism towards a kind of subrationalism, or even irrationalism" (p. 130). This, I submit, hits the nail exactly on the head.

The essay also features a fascinating discussion of the relationship between knowledge (or ignorance) and the possibility of human freedom. Hutchison concludes, quite wisely, that "significant freedom can hardly exist at the poles of omniscience and omni-nescience about the future, but can only emerge in a mixed world . . . which . . . combines elements of predictability and unpredictability" (p. 131).

By now, the reader will have deduced that I liked this contribution quite a bit. However true, there are still a few nits to pick with its author. First of all, Hutchison carries his war against certainty to an extreme on one occasion by denying that there can ever be incontrovertible economic knowledge. Siding with Hayek vis-à-vis Mises, Hutchison states: "In other words, apriorism cannot tell us anything about real world causation" (p. 128). But consider the statement: "On the free market, there is a tendency for profits to equalize in different industries, given that account is taken of risk." This (or any correct tendency claim, for that matter) would appear to be certain, at least in the sense that no state of the world could falsify it; as well, not only does it tell us something about real-world causation, it explains an essential element of real-world economic causation.

Second, an equation is made between "a libertarian school of economic thought" and the neo-Austrianism of Shackle and Lachmann (p. 129). On an aesthetic level, perhaps a better synonym would have been *libertine* rather than *libertarian*. In a more serious vein, libertarianism is a political philosophy, while Austrianism is an economic school of thought. If the normative-positive distinction is to be maintained, as it should (my value judgment), equations of this sort are problematic.

Third, there is a difficulty with Professor Hutchison's view

that it is question begging "simply to deny the 'possibility' of the predictions on which some kinds of governmental policies might be based, while claiming the possibility of the kind of predictive capacity required . . . for the effective operation of smoothly self-adjusting markets." But Austrian economists do not "simply . . . assert that one kind is, in principle, impossible, while the other kind is intellectually respectable and well worth attempting" (p. 132). On the contrary, they prove this with a wealth of analysis, showing how the different institutions, government and the market, operate in very different ways. (See Rothbard, 1977.)

But these points occupy a minuscule part of the essay, which is well worth reading, and makes an important contribution to our store of knowledge.

Kirzner

This is yet another brilliant contribution to the Austrian edifice, one to which Israel Kirzner has already given so much. In this paper on subjective costs, our author draws heavily on the insightful work of the Austrian James Buchanan[14]—the better to criticize that of the neoclassical Armen Alchian, George Stigler, and William Baumol.

Like a magician pulling rabbits out of a hat, Kirzner begins by distinguishing no less than four different interpretations of cost. Consider the case of a swimming pool. First, there are the disadvantages of building it, such as the reduction of one's bank balance and the attendant noise created by unruly neighborhood children. Second is the objective opportunity forgone, such as a car, which can no longer be acquired. Third is the objective alternative that could have been produced with the raw materials that instead went into the construction of the pool (for example, a summer cottage). Fourth, and most important, is the subjective "assessment at the moment of his decision regarding the pool of what he would be giving up" in order to obtain it, not in terms of a definite item, such as an auto or a cottage, but in terms of the "utility prospects deliberately sacrificed" (pp. 142–43).

In Alchian's view, the opportunity cost of the pool is either the objectively known car or the cottage; it is definitely not the essentially subjective loss of utility imposed by the noisy neighborhood children. However, in Kirzner's subjectivist approach, this by no means follows. On the contrary, it is possible that the noise is one of the perceived prospects that are

knowingly and willingly given up at the moment of choice. It all depends upon the mindset of the *chooser*; it is not and cannot be given to outside observers such as Alchian.

In order to clarify this distinction further, Kirzner next takes up the case of the "expensive wife." In the view of George Stigler and others (p. 145), the cost of marrying a woman (who stays at home to raise children) is the opportunity cost of the salary she forgoes by not working. Therefore, it is cheaper to marry an uneducated female, with poor employment prospects, than her highly market-skilled sister. States Kirzner in reply:

> Before this marriage decision the prospective groom had no alternative prospect whatever of enjoying the woman's high professional income; his decision to marry her involved *no sacrifice* by him of her income at all. . . . To be sure, once the two have married, a *subsequent* decision that she stay at home carries with it the cost of her foregone [SIC] income. But this is irrelevant to the injunction to the would-be groom to marry the uneducated girl in order to avoid high costs. (p. 145)

Continuing his critique of the notion that the outside observer can determine costs, our author considers two homeowners in similar circumstances who are contemplating constructing identical swimming pools. He gives four reasons for supposing that they may have *different* costs (1) One homeowner may forget to incorporate the noisy-kid factor into his calculations. (2) They form different expectations as to the likelihood of this inconvenience. (3) They may attach different weights to its importance. (4) The outside observer faces not just practical impediments in his determination. "To rank the costs faced by different decision makers is as conceptually impossible a task as is that of comparing utilities interpersonally. (In fact, of course, these two tasks are merely variants of a single impossible undertaking.)" (p. 147)

Next, it is Baumol's turn under the gun. In his view, money outlays can measure subjective costs. If it costs twice as much to kill a beaver as a deer, then one beaver should naturally exchange for two deer. Thus, the subjective costs of one beaver, for everyone in a flexible marketplace in equilibrium, would be two deer, no more and no less. This line of reasoning is rejected by Kirzner on the grounds that it is not enough to talk about the sacrifice of "*objects*, as opposed to *perceptions* of these objects" (p.

150). In the two-commodity world of deer and beaver, it is perhaps tempting to do just that. But in the real complex world, we cannot assume that two people will look upon objects in the exact same way, even if the objects are physically identical. "If the cost notion is to serve as an *explanation* of why a person made the decision he did, it will not do . . . [to make this equation] . . . unless we can rely upon the assured, complete awareness of the objective facts" (pp. 150–51). Baumol, in other words, is assuming away the possibility of error in the learning process, and it is only through this process that we have any hope of achieving full awareness.

Our author concludes his analysis with a consideration of the doctrine of social costs. Since cost has no meaning outside of and apart from an actual decision, and the act of choice can only be an individual one, all subjective costs must of necessity be private ones. To the extent that the concept of social cost has any meaning at all, it must refer to hypothetical (and thus metaphorical) decisions, not real ones. And this goes for the so-called objective opportunity costs as well. The core of any meaning they may have can only be made intelligible in terms of subjectivity.

Although Kirzner does not mention the political implications of his work, they are not too difficult to discern. Since outside observers are never in a position to determine the costs of actual market participants, all public policy that implicitly relies on objective costs (e.g., tax, antitrust, and utility legislation) is without intellectual foundation.

No analysis of any article would be fully complete without a mention of its shortcomings, and in this case the faults were obvious and dramatic. First of all, I felt compelled to read through this chapter on four separate occasions (and, of course, profited immensely from each perusal). Second, I felt compelled to underline virtually every single sentence—many several times over, in different colors of ink—and to write congratulatory notations in the margins throughout. After a while, my copy of this chapter was unreadable and I had to obtain another book. If you wish to see a brilliant mind in action, to gain a never-to-be-forgotten insight into praxeological reasoning at its best, and have alternative costs of time that preclude extensive study, then read this chapter. It is truly exquisite.

Mittermaier

Anthropomorphism is the assignment of human mental processes to a non-human entity. When this is done in behalf of objects, such as stones, trees, storms and molecules, it is illegitimate. In more superstitious times, this was common practice. Nowadays, of course, the physical sciences have exposed anthropomorphism as a fallacy and have banished it. However, the rejection of this doctrine in that area has become so well entrenched, and those who have done so have taken on such a great aura of prestige that as a result, a horde of imitators has arisen in the social sciences. Because of their efforts, this precept has been not only expunged from the physical sciences, where it does not belong, but from the human sciences as well, where it does.

Karl Mittermaier has designated such later development as a "mechanomorphism" and defined it as improperly "ascrib[ing] mechanical properties to what is otherwise recognized as an aspect of human affairs" (p. 237).

In criticizing the mechanomorphisms of the positivist economists, Professor Mittermaier makes an important contribution to Austrianism. He is particularly sharp and critical with regard to macroeconomic aggregates, which he characterizes as "treat[ing] an economic system as though it were a mechanical system" (p. 237). He captures precisely the orthodox view on saving and consumption as "a macro-economic fluid whose flow sometimes has to be augmented and sometimes diminished" (p. 238).

In his analysis, to slavishly and uncritically copy classical mechanics from the physical to the social sciences is to commit the logical fallacy of violating the coherence rule (p. 247). This rule "stipulates that a question should be posed in terms which all belong to the same domain of thought and that the corresponding answer should be composed in terms which all belong to the same domain of thought as the terms of the question" (p. 247).[15] That is, I take it, if we are discussing actual people with beliefs, fears, and expectations, people who make purposeful decisions, then by all means do not conflate this category of discourse with talk of indifferent curves, "utils," and other such tools of the trade of the modern mechanomorphic neoclassical economist.

Important as are these positive elements of his paper, it is marred by a tendency to go to the other extreme and dismiss as mechanomorphism several concepts that can be strongly grounded in human purposiveness. Consider "equilibrium," for example. The author of this chapter asserts that "Equilibrium

clearly comes from this domain of thought, and talk of equilibrating or market forces must be regarded as mechanomorphic" (p. 237). There is no doubt that in the hands of *some* economists, equilibration is treated as no more than a balancing act, akin to that attained by a weight scale. But as others use the concept, equilibrium (or the ERE) is interpreted in terms of purposiveness or human action.

The concept of time would appear to be another instance. Mittermaier objects to its use in economics because it may be "easily interpreted as a prediction" (p. 238). Yes, to be sure, there is always the danger that time may be used mechanomorphistically, completely apart from human motivations, but our author comes perilously close to asserting that this *need* be the case.

Another difficulty with the chapter is that our author complains that Mises devoted only "about 300 words" (p. 246) to the explication of the concept of human action. He realizes that the elaboration can be found in *Human Action*, but is unhappy with the fact that one would need a "fine-tooth comb" (p. 247) to find it. He seems unaware of the contribution of Murray N. Rothbard (1962) in this regard.

Further, Mittermaier holds that private property implies means and ends, but denies the obverse (p. 247). Yet, how is it possible to have means and ends, surely the result of human purpose, without private property?

White

"A Subjectivist Perspective on the Definition and Identification of Money" by Lawrence H. White is a gem of an article. It carefully sets up praxeological considerations and utilizes them to address a perplexing problem that would otherwise be far more intractable.

In the first section, the University of Georgia professor grounds his analysis in the subjectivist perspective; he will seek a monetary definition comprehensible in terms of individual human action and purpose, not based on correlations with any statistical aggregates. He arrives at GAMOE, the "generally accepted media of exchange" in an economy. White shows how the other textbook definitions of money (such as, store of value, unit of account, and standard of deferred payments) are all subsidiary to money's essential nature of facilitating exchange.

In terms of actual identification of money candidates, he

concludes in section 2 that only hand currency, coins, traveler's checks, and checkable claims on banks pass muster; that is, he arrives at that old warhorse, M1. He specifically rejects claims made in behalf of the moneyness of noncheckable bank liabilities and money-market mutual fund shares.

White is particularly eloquent and forceful in rejecting Yeager's objections to the inclusion of traveler's checks in the money supply. He does so on the grounds that the criterion of repeated circulation (which this medium lacks) would rule out of court, under a gold standard, those parts of gold bullion intended to be used not for exchange, but for industrial purposes. As well, the narrower Yeager criteria of routine circulation would reject com as money, even though it were the most popular exchange medium in a barter system, since some of it could be eaten. This would also repudiate "checkable demand deposits in a multibank system . . . [since] demand deposit claims on Bank A are not accepted by customers of other banks with the intention of passing them along without redemption" (p. 307).

Unfortunately, however, White does not spend nearly as much time criticizing the views of Rothbard, a more serious protagonist. Instead, in the space of an exceedingly short footnote, White cursorily dismisses the Rothbardian claim that passbook or savings accounts should be considered money on the ground that they can be turned in for cash on demand. The author of this chapter maintains that "this feature is irrelevant when they fail to satisfy the medium of exchange criterion for money which Rothbard (1978, p. 144) himself enunciates" (p. 314, note 26). One question that remains unresolved, based on this reply, is whether or not passbook accounts redeemable on demand constitute money under the medium of exchange criterion. It would appear that such funds could be used to transact business and that at least some people actually do so. Another inquiry that remains open, unhappily, is how White would respond to what can only be considered Roth bard's attempt to anticipate this very objection:

> Suppose that, through some cultural quirk, everyone in the country decided not to use five-dollar bills in actual exchange. They would only use ten-dollar and one-dollar bills, and keep their longer-term cash balances in five-dollar bills. . . . If a man wanted to spend some of his cash balance, he could not spend a five-dollar bill directly; instead,

> he would go to a bank and exchange it for five one-dollar bills for use in trade. In this hypothetical situation, the status of the five-dollar bill would be the same as that of the savings deposit today. But while the holder of the five-dollar bill would have to go to a bank and exchange it for dollar bills before spending it, surely no one would say that his five-dollar bills were not part of his cash balance or of the money supply. (Rothbard, 1976, p. 181)

While this paper otherwise makes a sterling contribution to Austrian thought and to monetary theory in general, there are, in addition, two very minor difficulties. First, on pp. 301–2, its author positions himself strongly in the subjectivist camp, criticizing econometric analysis and the statistical and aggregative perspectives as not in keeping with the individuals' plans. But on page 304 we find him announcing that his work will be of "vital importance" for statistical work, for price indexes, and for other aggregates. And so it will be. Paradoxically, even the use of macroeconomic concepts can benefit from methodologically individualistic insights. But one must consider it a lacunae that no discussion of this seeming contrariety is provided, nor is there any critique of this mode of analysis, as would appear consistent with White's own basic outlook.

Second, the author of this paper maintains that his study is "consistent with the methodological subjectivism espoused by Ludwig M. Lachmann" (p. 311). This, however, is somewhat misleading. On the one hand, there is nothing in this chapter that is uniquely connected with Professor Lachmann's version of subjectivism. Any other Austrian version of subjectivism, individual purposiveness, or human action would suffice at least as well. On the other, a case could easily be made out that the Lachmann "kaleidic" vision is *not* compatible with White's work. For suppose that expectations are not convergent. That is, assume with the honoree of this Festschrift that people diverge in their expectations about everything under the sun. How, then, would it be possible to construct a comprehensible theory of money, as White has so admirably done, given that implicit in its identification is not merely individual subjectivism, but rather intersubjectivity? If, moreover, inherent in the definition of money is an intention to use it as a medium of exchange in the future, but no one can ever know anyone else's future intentions

or expectations, how can we even coherently define money, much less identify any?

Conclusion

Due to my focusing the detailed analysis on by far the best chapters in this Festschrift, the reader may be left with a better impression of the book than it deserves. In point of fact, this volume is replete with errors and is most disappointing for a book touted as the most modern, up-to-date version of Austrianism and as a challenge to the economics of Mises. Indeed, the majority of its chapters simply ignore the basic tenets of this school of thought. And several of those that do not ignore praxeology misconstrue it.

But it is important that an overall assessment of the work of the followers of Professor Lachmann not be lost sight of amid the welter of minutiae about their specific errors. And, unfortunately it is not just that they are wrong about equilibrium, methodology, hermeneutics, time preference, and so on; even worse, if possible, is the fact that there has been a virtual cessation of focus on real economic problems such as money and banking, business cycles, utility and welfare economics, and monopoly theory. Virtually all that is heard from this quarter is an endless repetition that the market is a process, that equilibrium is a red herring or worse, that no one can ever know anything, and that all is subject to interpretation.

It is possible to construct a continuum in this regard. On the one extreme would be the mainstream empiricists, who believe that their regression equations can test economic axioms. This might well be called an overreliance on economic research. On the other extreme would be the followers of Lachmann, who have all but eschewed economic research; the impossibility of knowing the future, the divergence of expectations, radical subjectivism, it would appear, make this an extremely dubious path for them to follow. And as moderates on the continuum are the Misesians, who maintain that history can illustrate but not test theory, and who are nevertheless vitally interested in doing just this type of work.

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Review of *Subjectivism, Intelligibility and Economic Understanding: Essays in Honor of Ludwig M. Lachmann on his Eightieth Birthday*, Israel Kirzner, ed. (New York: New York University Press, 1986).

[1] All page references, unless otherwise identified, are to this Lachmann Festschrift.

[2] It is a personal pleasure to be able to review the Lachmann Festschrift and thereby be able to honor this great man, however indirectly, because as it happens, I, along with Walter Grinder, was able to play a small role in support of the initial invitation that first brought him to NYU as a visiting professor.

[3] S.C. Littlechild, *Economic Affairs*, June 1987, p. 43. Similarly, David L. Prychitko, "Ludwig Lachmann and the Farther Reaches of Austrian Economics," *Critical Review*, vol. I, no. 3, p. 66, makes the point that this book is "in the Austrian tradition" and claims that "For anyone interested in the farther reaches of Austrian economics, this is a book worth reading."

[4] The magnificent contribution of Garrison on this subject serves as an antidote to these musings; unfortunately it is confined only to his chapter.

[5] To be sure, this Baird criticism was published one year after the publication of the Rizzo-O'Driscoll chapter in the

Lachmann Festschrift, in 1986. But an earlier draft of the Baird paper was presented to O'Driscoll and Rizzo at a Liberty Fund Conference on Time and Ignorance in November 1984.

[6] In his fourth footnote, High claims that nothing in George Selgin's "Praxeology and Understanding" (unpublished manuscript later published as Selgin [1987]) "contradicts the defense of Lachmann presented here." But this is hard to reconcile with the criticism that Selgin actually leveled at Lachmann (see especially pp. 32–33). Professor High also claims in this footnote that "Selgin's views are much more compatible with those of Lachmann than his paper would suggest." In this, he is contradicted by his colleague at George Mason University, Don Lavoie, who correctly asserts in his first footnote: "George Selgin's critique of Lachmann and Shackle, which interprets them both as historicists, points out that since the Austrian school began with Menger's devastating criticism of the historicists of his day, it would be unfortunate if contemporary Austrians were to revert to this antitheoretical stance." While Lavoie mistakenly disagrees with Selgin's contention that Lachmann is an example of historicism, he at least sees, as High does not, that in *Selgin's* view this is so.

[7] Notice how truly great a departure is this view from those we have come to associate with Professor Lachmann. Usually, and typically, we may rely on that eminent economist to express a skeptical view, not to say a nihilistic one. But in this case, in stark contrast, he is amazingly exuberant and optimistic about the knowledge and abilities attained by our profession.

[8] This is a tautology, not an empirical claim. For if we did not know anything about x, we would have to be completely unaware of it. And if that were true, the question of our knowledge about it could not even arise. And if we were even but aware of x, we would know something about it, namely its existence.

[9] See Selgin (1987, pp. 34–36).

[10] For Lavoie, "formalism" is equated with the neoclassical fixation on equilibrium states, which he now dubs "Euclideanism" (p. 193). In contrast, there is "antiformalism," which is now equated with hermeneutics. Thus, with a sleight-of-hand redefinition, there would appear to be no room for a Mises who rejects both neoclassical formalism and hermeneutical antiformalism. One must, by definition, be either a neoclassical Euclidean formalist or an "Austrian" hermeneutical antiformalist. To paraphrase the old adage, "When faced with needless and

extraneous definitions, reach for your wallet—or count your fingers." There is a complication, however. Our author also characterizes Euclideanism as a "fully axiomatized, linearly constructed system of strict deduction" (p. 198), which is a far more apt description of Mises.

[11] According to the survey conducted by Frey et al. (1984), 10 percent of U.S. economists disagreed with the proposition that "A minimum wage increases unemployment among young and unskilled workers," and 1.9 percent denied that "A ceiling on rents reduces the quantity and quality of housing available."

[12] For example, Lavoie (p. 207) cites Mises as follows: "In asserting the a priori character of praxeology we are not drafting a plan for a future new science different from the traditional sciences of human action." Lavoie concludes from this that Mises could not have meant to refer to "strictly linear deduction" (p. 207). But in the very next sentence following the one quoted, Mises maintains not "that the theoretical science of human action should be aprioristic, but that it is and always has been so" (*Human Action*, p. 40). Lavoie seeks to support his interpretation of Mises as a sort of empiricist, not a praxeologist, when he quotes him as stating: "All that man can do is to submit all his theories again and again to the most critical re-examination" (p. 207). Very reasonable. But again Mises' very next sentence supplies the crucial context neglected by Lavoie: "This means for the economist to trace back all theorems to their *unquestionable and certain* ultimate basis, the category of human action . . ." (*Human Action*, p. 68, emphasis added). Contrary to Lavoie, Mises is not looking for greater certainty about the world from more and more empirical induction; rather, he is urging us to rigorously check our basic premises and the logic of our deductions. Further, Lavoie disingenuously interprets Mises' statement "Economics does not follow the procedure of logic and mathematics" (p. 205) as support for his contention that Mises did not mean "for economic theory to be forced into a fixed, hierarchically deductive structure, like the theorems of geometry" (p. 205). But anyone who reads the relevant passage from *Human Action* (p. 66) will discover that this is not at all what Mises stated. Yes, to be sure, there are important differences between geometry and praxeology. But this has nothing whatever to do with hierarchy and deduction, as misleadingly adduced by Lavoie. On the contrary, the differences have to do with the assumptions, the applications, and the

"solutions of concrete historical and political problems" (*Human Action*, p. 66). Geometry, in other words, is concerned with spaces and lines; praxeology, with acting human beings. But apart from that, their methodologies are very similar.

[13] I have interpreted Lavoie as claiming Mises as a hermeneutic anticipator. According to an alternative perspective, Lavoie argues, in effect, that Ludwig von Mises had a bipolar personality disorder, a species of philosophical schizophrenia. As a result, Mises could not decide between formalistic certainty and radical skepticism. In this view, when Mises speaks of "apodictic certainty," Lavoie puts Mises on the couch and sees only self-congratulatory flourish. When Mises addresses the need for careful thought, psychiatrist Lavoie diagnoses this as questioning the fundamentals of economic law. This interpretation is buttressed by Lavoie's habit of dismissing Mises for using empirically based arguments when he is merely utilizing the methodology of his opponents in order to employ *reductios ad absurdum*. For example, Lavoie (p. 206) interprets Mises as a pragmatist ("we accept this pragmatic point of view") but, as a perusal of the actual page of *Human Action* (p. 24) makes clear, Mises was only employing this view as part of a *reductio ad absurdum*. Mises adopted pragmatism, but only temporarily, for the sake of argument, in order to overturn this philosophy.

[14] James Buchanan may not be an Austrian on most other questions, but he certainly is with regard to subjective costs. See his *Cost and Choice* (1969).

[15] His critique of the failure of the mainstream orthodoxy to be bound by the coherence rule is dramatic and incisive. He states:

> The student is introduced to a topic reeking with the richness of social life. He is then taken by a little legerdemain through a blur and suddenly finds himself in an eerie world of continuous functions. He watches the functions shift about and, when they have stopped, notes down the coordinates of their points of intersection. He is then taken again through the blur and, behold, he finds himself once more among familiar human faces. The recommendation of this paper is that the subjectivist case against mechanomorphism be based on the ideal that such blurs be removed. (p.

249)

You'll Find It in *The New Palgrave*

Mark Skousen

Free-market economists, especially of the Austrian variety, have faced an uphill battle in gaining recognition in the post-Keynesian world. For many years it was difficult, if not impossible, to be published in the prestigious journals, to teach at major universities, to participate in academic conferences, to contribute to edited books, or just to be mentioned in introductory college textbooks. In short, the economics profession was largely antagonistic toward the tiny band of laissez-faire advocates.

Fortunately, this trend is gradually reversing itself. Hayek became a Nobel laureate in 1974, and a number of "think tanks" (among them the Cato Institute, the Adam Smith Institute, and the Mises Institute) began publishing free-market Austrian views. Murray Rothbard, who for many years taught at the little-known Polytechnic Institute of Brooklyn, is now a professor at the University of Nevada at Las Vegas. The Mises Institute is established at Auburn University, where Leland Yeager and Roger Garrison offer a graduate program in Austrian economics. Other universities that have been receptive include George Mason University, New York University, and the University of Dallas. Two academic journals, *History of Political Economy* and *Southern Economic Journal*, have been fertile ground for Austrian submissions. And even some of the new introductory college texts are including biographies of Mises and Hayek. See, for example, Ralph T. Byrns and Gerald W. Stone, *Economics*, 3rd ed. (Glenview, Il.: Scott, Foresman, 1987). Sheila C. Dow, in her pathbreaking work, *Macroeconomic Thought: A Methodological Approach* (Oxford, England: Basil Blackwell, 1985), includes the "neo-Austrian" view on an equal basis with other schools of thought (post-Keynesian, Marxian, and mainstream). I hope her approach will be imitated elsewhere.

Unfortunately, the battle for complete recognition is not over. There is still a great deal of prejudice against the followers of Mises and Hayek, especially in terms of obtaining academic positions and publishing in the most important economic

journals. Murray Rothbard is not even listed in Mark Blaug's otherwise exhaustive *Who's Who in Economics* (Cambridge, Mass.: MIT Press, 1986). Blaug's explanation for this grave oversight is that Rothbard was not cited sufficiently in the academic journals to be included in the list of one thousand famous economists. Radical economists have a difficult time fitting traditional standards.

Another example: a recent scholarly work, *The Gold Standard in Theory and History*, edited by Barry Eichengreen, which Peter Temin at MIT called "the best collection of readings on the gold standard available today," contains not a single article by a gold-standard advocate, and the index makes no reference to the views of Mises, Hayek, or Rothbard. The editor does make a short reference to *The Case for Gold*, by Ron Paul and Lewis Lehrman (Washington, D.C.: Cato Institute, 1982), but that is all. So much for equal time.

Free-Market Contributions to *The New Palgrave*

Now comes a blockbuster to the economics profession, a monumental reference work that is bound to be widely used and quoted over the next hundred years: *The New Palgrave: A Dictionary of Economics*.

As a financial economist trying to catch up on what has happened in academic economics over the past few decades, I found *The New Palgrave* to be both comprehensive and fascinating. Blaug's *Who's Who in Economics* pales by comparison. *The New Palgrave* is an updated version of the century-old *Dictionary of Political Economy* (London: Macmillan, 1894, 1896, 1899), edited by Inglis Palgrave, an English banker and editor of *The Economist* in the 1880s.

But this is much more than an update. *The New Palgrave* is 4 large volumes, over 4 million words, and 3,500 pages long. It contains 700 biographies and 2,000 entries. Over 900 economists contributed to the reference work. As would be expected, the price for the set is also enormous: $650!

There is no question in my mind that *The New Palgrave* will be a success as a single reference work to economics and an indispensable tool for researchers and students. Imagine, turning to a single resource and finding original articles by Milton Friedman, Paul Samuelson, James Buchanan, Kenneth Boulding, George Stigler, James Tobin, John Kenneth Galbraith, and Murray N. Rothbard.

Followers of the free market should not be disappointed in this exhaustive dictionary. There are numerous references to the views of the Austrian, Chicago, or new classical (Rational Expectations) tradition. Unlike most other dictionaries and commentaries, which often ignore Austrian economics or write disparagingly about the free market, the editors of *The New Palgrave* let the economists speak for themselves. Lengthy contributions are made by such prominent free-market economists as Murray N. Rothbard, Israel M. Kirzner, James Buchanan, Roger Garrison, Karen Vaughn, P.T. Bauer, Thomas Sowell, Milton Friedman, Armen Alchian, and Leland Yeager. For example, Israel Kirzner wrote five and one-half pages on the Austrian school of economics and Murray Rothbard wrote five articles, including two pages on Ludwig von Mises. In all, I counted at least fifty articles written by free-market economists whom I recognized. While this is small in comparison to the other schools that made contributions, it is a promising beginning.

The extensive biographical listings contains a surprising number of Austrian economists, including Carl Menger, Eugen Böhm-Bawerk, Friedrich Wieser, Ludwig von Mises, Friedrich Hayek, Fritz Machlup, Frank A. Fetter, Wilhelm Röpke, Jacques Rueff, and even Richard Strigl. (I was disappointed, however, that Ludwig M. Lachmann and W.H. Hutt were omitted; both qualified in terms of being born before 1915.) The biographical details are far more expansive than those found in other reference works.

Keynesian Bias in *The New Palgrave*

I am not saying that *The New Palgrave* is without serious faults. Overall the material is heavily weighted against a free-market approach. *The New Palgrave* reflects the fact that Keynesianism and all its many forms still dominate the economics profession. Admittedly, there are significant sections on monetarism, the new classical macroeconomics, and Marxism, but the major thrust of the dictionary is definitely Keynesian. Two of the three editors (John Eatwell of Cambridge and Murray Milgate of Harvard) are Keynesians, while Peter Newman of Johns Hopkins is an econometrician. This perspective is reflected in the fact that the biography of John Maynard Keynes is twenty-three pages long, followed by three subsequent entries: “Keynes’s General Theory,” “Keynesian Revolution,” and “Keynesianism.” None are

written from the viewpoint of an opponent to Keynesian economics.

There are numerous examples of editorial bias. The entry on "capitalism" is penned by Robert L. Heilbroner, a socialist who refers more to Karl Marx than to Adam Smith in the essay. Heilbroner's bibliography includes numerous references to Marxists and socialists (including Paul Baran, David Gordon, and Gunnar Myrdal) and only one reference to a defender of the market (Adam Smith). An essay on the subject of "price control" is written by John Kenneth Galbraith, a proponent of wage-price controls. The entry on the "gold standard," like Eichengreen's book referred to previously, does not include any pro-gold-standard works in the bibliography.

Of course I have no objection to the editors' inclusion of Heilbroner and Gailbraith's essays; they are quite provocative. But should they not have asked Hayek, Friedman, or Rothbard to write a contrasting article? The dictionary contains three articles on competition (Austrian, classical, and Marxian) and four articles on distribution theories (classical, Keynesian, Marxian, and neoclassical). Why not offer opposing views on capitalism, price controls, the gold standard, communism, depression, inflation, development economics, and other controversial areas? Such a comparative approach works well in Sheila C. Dow's *Macroeconomic Thought*. The editors of *The New Palgrave* have made an attempt at fair play by having fee-market economists write on some of their favorite topics (e.g., Karen Vaughn on the "invisible hand," Murray Rothbard on "time preference," and Steve Hanke on privatization) but this evenhanded approach is not consistently followed.

Still, the benefits of this reference bible far outweigh the disadvantages, even for economists holding a minority position. The vast list of biographies makes it an indispensable research tool. One of the unusual sketches I found interesting was on Augustus M. Kelley, the publisher of many free-market books that have gone out of print (such as Hayek's *Prices and Production*); another was on Robinson Crusoe, the fictional character created by Daniel Defoe and used so frequently in earlier economics textbooks by Menger, Böhm-Bawerk, and Bastiat, among others, to explain the fundamentals of production, labor, time preference, and so on.

Moreover, for anyone who wants to get a rudimentary understanding of the various conflicting theories in economics today, there may be no better source than *The New Palgrave*. In

many cases, the topic is addressed by a prominent proponent of the theory. As the editors state, the dictionary's objective is "not to produce a synthesis of current thought, but to provide an opportunity for leading authorities in economics to present accurately and forcefully their own analysis and arguments." Examples include the "quantity theory of money" by Milton Friedman and "input-output analysis" by Wassily Leontief. (But, strangely enough, new classical macroeconomics is written by a critic, MIT's Stanley Fischer. A better choice would have been Robert Lucas.)

Each entry is supposed to be written in a scholarly, comprehensible, and clear fashion. The numerous mathematical expositions are demanding, even on an elementary level, and a difficult challenge in clarity, to say the least. *The New Palgrave* reflects the overwhelming influence of econometrics and mathematics in the economics profession. The journals already assume a basic understanding of the mathematical models, a serious drawback for the student who wants to know the point of the article. Now he can turn to *The New Palgrave* for a short course in the subject. For example, if a journal article refers to "Bayesian inference," you can look it up in the dictionary. This does not necessarily mean that you can fully understand the topic, but it provides a beginning.

Finally, the reason I like *The New Palgrave* so much is that it is an expression of modern economic thinking on almost all subjects. It is a critical introduction to the wide world of economics that you could not get anywhere else without spending a great deal of time and effort in the library jungle. Here in one location you can learn about new books, articles, topics, people, and theories that you might never discover by pouring through the stacks of libraries throughout the country. And for that we can thank the editors and publishers of *The New Palgrave*.

Review of *The New Palgrave: A Dictionary of Economics*, John Eatwell, Murray Milgate, and Peter Newman, eds. (London: Macmillan; New York: Stockton; Tokyo: Maruzen, 1987).

The Origins of Language: A Review

David Gordon

Before considering *The Origins of Language*,[1] a preliminary question confronts us. Wells' book is a historical and critical account of eighteenth- and nineteenth-century theories of the origins of language: "aspects of the discussion from Condillac to Wundt," in the words of its subtitle. Why then discuss this volume in *The Review of Austrian Economics*?

The answer to this query lies in the value of Wells' investigation in placing in question an idea many Austrians, under the influence of F.A. Hayek, have blown up out of its real but subordinate place in social explanation. Hayek has made famous a phrase of Adam Ferguson, "the results of human action but not of human design," and used the notion this slogan encapsulates as a principal tool of analysis of economic and social institutions.[2]

In the first volume of Hayek's *Law, Legislation and Liberty*; for example, he denies that the systematic character of law comes about because people designed the legal system in the style of Euclid elaborating his geometric theorems from his definitions and axioms.[3] Quite the contrary, law arose from decisions by particular courts. Drawing most of his examples from British law, Hayek maintains that as courts modified and adapted the decisions of preceding judicial bodies, an organized assemblage of law developed in the course of centuries. No one planned the legal system. Like Topsy in *Uncle Tom's Cabin*, it "just growed." Of greatest significance to economists, of course, Hayek uses the notion of unplanned order to explain the market economy. In contrast with centrally directed socialism, the market permits people to coordinate information that no one person possesses. Moreover, not only does the market bring information together in an undesigned yet at the same type systematic fashion; the key to its genesis lies in the same direction. No one planned the rise of market capitalism. Like the common law, it too arose "as freedom slowly broaden[ed] down . . . from precedent to precedent."

Although Hayek presents what I have just summarized as a

package, the preceding paragraph in fact contains two distinct theories. For the first of these, everyone sympathetic to Austrian economics must be grateful to Hayek. Following his teacher, Mises, he showed that only in a market system can efficient economic behavior take place. Central "planning" leads to chaos. [4] But it does not follow from the fact that central planning cannot work that people who use the market mechanism operate in a fog of ignorance. They may consciously desire to have a market system, and their coordinated action in maintaining it is then *not* an "unintended consequence of human action." They may avoid harmful intervention, not because they blindly follow traditional rules, but because they understand the way the market works.

We may extend this point one further step. Not only can the market *now* operate as the result of the deliberate plans of people, it may for all Hayek has shown have originated by conscious planning. Nothing in Hayek's analysis of the way the market coordinates information forbids people to establish a market system through agreement.

I do not contend that Hayek errs historically in seeing the origin of either common law or capitalism as the outcome of an evolutionary process designed by no one. To evaluate his thesis would be a long and complex undertaking—one would have to assess, for example, Walter Ullmann's contention that much of medieval law was centralized—and in any case this is not to the point here.[5] Rather, I wish only to insist that Hayek's analysis of the market does not entail that capitalism, or by analogy anything else, arose in the way Sir John Seely said the British Empire was acquired: "in a fit of absence of mind."

Here precisely lies the value of Wells' book for economists. Hayek instances language as a chief example of a social institution that displays a complex order yet has not been invented. Wells stands squarely against this contention. He thinks that language *is* an invention. If he is right, Hayek's view of the undesigned nature of institutions errs in one major instance.

But in turning now to a description of Wells' challenging thesis, I do not intend anything as ambitious as a refutation of Hayek's entire approach to social evolution. Rather, by presenting Wells' contrasting contention, I aim only to bring to the attention of those under Hayek's influence that alternatives to his analysis do exist. Even if Hayek's stress on nonconscious evolution is correct, his position needs to be defended by argument rather than asserted as self-evident.

But how can language be a deliberate invention? As Wells points out (p. 11), the fundamental obstacle that confronts any theory of the invention of language is a paradox succinctly stated by Jean-Jacques Rousseau: “Words seem to have been necessary in order to establish the use of words.” To invent a new word is an easy task, once people already speak a language; but how can an entire language be invented? Invention implies conscious thought, but how can one construct a language, when thinking presupposes the use of words? Perhaps Hayek is right after all.

Wells ably brings out the way in which several writers during the Enlightenment—principally Condillac, Reid, and Monboddo—challenged the seemingly watertight argument just offered. The trouble comes in the last premise of the paradox: *does* thinking presuppose the use of words? If it does, language cannot be invented. But why *must* thinking be verbal?

As Condillac in particular noted, people can communicate by gestures as well as words. He contended that language *can* then be invented if a stage of communication by gestures preceded the use of words. A member of a group without a verbal language might, for example, wave his arms should he see immediate danger ahead. If successful in his communication, he might avert serious danger to the entire group. Members of the group might then gradually build up an entire repertoire of gestures for various situations, sufficient to constitute a language. From this base, the invention of words seems much less paradoxical. Creation of language thus does not presuppose the prior existence of words.

But does this “solution” do anything more than press back the problem by one step? If people can use gestures to communicate, how did gestures acquire their meaning? Does not the claim that people can understand gestures without words assume just the command of meaning it is supposed to explain?

Here exactly lies Condillac’s most original contribution, a point that Wells maintains previous scholars have failed to stress. Condillac by no means claimed that every gesture must be invented. Some are “natural signs” in the way that smoke is a natural sign of fire. To revert to our previous example, to wave one’s arms in the face of danger does *not* require a preceding conscious decision. Once people see the effect of natural signs, however, they can go on to use them deliberately. Language, given this indispensable foundation, can avoid Rousseau’s paradox.

Once more, though, the question previously raised comes

forward in a new guise. Suppose Condillac is right. Grant, even, that there are many gestures that serve as natural signs. It does not follow that people can use these signs in the absence of their immediate stimulus. And surely this is necessary for even a nonverbal language. Unless one can understand a hand-waving gesture (e.g., when no immediate challenge looms), one has no command of language. Even an animal can indicate danger through gestures to other members of its herd. Where then lies the contribution of gestures to the origin of language?

I cannot think that either Condillac or Wells has offered a completely adequate response to this query. But as Wells notes, the situation confronting primitive man differs from that of ants and bees, who communicate in a quite complex way. Human action is not rigidly bound by instinct. Thus, whether or not the use of gestures as a language has been adequately accounted for, at least the space for an explanation stands open. Wells conjectures that the mental capacity required to move to the full use of a language of gestures does not exceed that of the higher apes.

The gap in the theory just described can in part be handled by using an approach in another recently published book, J.N. Hattiangadi's *How Is Language Possible?* (coincidentally by the same publisher as Wells').[6] Hattiangadi, unlike Wells, does not see gesture as the key to the mystery of language. But, seeking like Wells the origin of language in thoughtful though nonlinguistic behavior, he stresses play as a likely source of the development of language, in a way that fits in with Wells' account. Suppose, to revert once again to our favorite example, those who have averted danger by heeding a hand waver's signal now pretend that danger threatens and "go through the motions" of the episode that they have just survived. This type of play hardly demands much of people and is in fact characteristic of virtually all children. It is exactly the "pretend" element of play that constitutes the importance of this elementary activity for our present purpose. Since, in our imagined case, no immediate danger is present, but the players act as if a threat did confront them, the basis of language learning lies near to hand.[7] The players can represent something that is absent in the same way that through words we refer to objects not on the scene. Hattiangadi's play theory of the origins of abstraction meshes in a remarkable way with Wells' gestural account to offer a most promising theory of the beginning of language.

In urging attention to Wells and Hattiangadi, I do not mean

to suggest that all problems in this difficult area stand in sight of solution. One might wonder whether in appealing to the ability to represent absent items, the problem has been solved by assuming it out of existence. How exactly was the ability acquired to engage in play of the imitative sort? Even if an explanatory gap remains, however, on the surface it strikes one as less wide than that involved in the entire creation of a language *de novo*. The origin of language now appears much less intractable.

Before returning to Wells, an objection remains to be considered. This affects not Wells' book but the way I have chosen to present its thesis. If Wells assumes that language evolved from gestures, is he in fact opposing the Hayekian shibboleth, the "results of human action but not of human design"? Wells does not after all contend that people lacking language one day assembled and invented words. Rather, the development of gestures and then words from natural signs takes place in a manner akin to that of Darwinian evolution. What could be more Hayekian?

A crucial difference in fact separates Wells' position from Hayek's model of evolution. When gestures and *a fortiori* words are used to represent absent objects, this process takes place consciously. This use of a sign is nugatory unless its employer realizes what he is doing. Though he may not realize the full complexity of language, he cannot use gestural or verbal language at all unconsciously. If only at an elementary level, he must realize he is using language. Thus, the growth of language differs from the evolutionary pattern, to which Hayek makes constant appeal, in that the latter depends for its success only on everyone following fixed rules. In this pattern, no conscious thought is required. One often gets the impression that for Hayek its presence stands as an obstacle to progress.

But let us return at last to Wells. After reading his account of Condillac's views and the similar though less developed positions of Thomas Reid and Lord Monboddo, one is likely to be brought up short by a fact difficult to fathom. Although Condillac developed an account of language that seems very much worth extending further, few later writers followed in the path of the Enlightenment writers.

Why not? In part, the answer lies in the lack of anthropological data available until recent times. Bereft of empirical information, the study of the origins of language could hardly rise much above the purely speculative. But this is not the

principal cause of the turn away from Condillac's model.

Wells maintains that the main nineteenth-century writers on the origins of language regressed in their understanding from the heights attained in the preceding century. Largely under the influence of J.G. Herder, an important figure of German Romanticism, nineteenth-century writers tended to deny that language could have consciously developed. Ignoring or misunderstanding Condillac, Herder and his successors claimed that Rousseau's paradox—words seem to be required to invent words—was in its own terms irresolvable.

Instead, these writers appealed to the spirit of particular peoples that in some rationally unspecifiable way had generated language. Like Gadamer and our latter-day hermeneuticians, who have in fact been directly influenced by Herder, the appeal to tradition took the place of logical analysis. Hayek's stress on tradition also falls within this framework.

I do not think it necessary to trace the growth of the Romantic theory through each of the rather obscure figures Wells discusses in his valuable historical account. Readers of this journal probably will not be interested in the nuances of the positions held by, for example, Geiger, Steinthal, Müller, and Wundt. (Those who are can consult Wells' book.) But before turning from this group, one more characteristic of their position should be noted.

One reason they rejected the rationalist account was its inability to account for the existence of "higher languages." Largely owing to their grammatical form, some languages could more easily express abstract thought than others. So, at any rate, the great liberal theorist and linguist Wilhelm von Humboldt contended. (Humboldt especially emphasized the use of inflection in the "higher" languages.)

Though pleasing to the ego (since German, not coincidentally the native tongue of most of these writers, usually was ranked as the highest modern language), this notion lacks any scientific basis. Because of the very strong emphasis on it, however, the study of the origins of language received a serious setback from which it has not fully recovered. Those engaged in the quest for the "highest" language were hardly likely to favor a theory that, like Condillac's, viewed language as a relatively easily understood development from certain tendencies universally present among primitive people. The appeal to the essence of a people's spirit and the quest for the Holy Grail of the supreme language went hand-in-hand.

Rather surprisingly, though J.G. Fichte is twice mentioned (pp. 65, 110), Wells fails adequately to stress the role of this outstanding idealist in the rise of the trend just described. Fichte's *Speeches to the German Nation*, greatly influential as a rallying cry against Napoleon, emphasized the value of German as a so-called *Ursprache*, (a primitive language largely uncorrupted by linguistic mixture), in contrast with the other major European languages.[8]

It is also worthy of note that the quest for the ideal language, far from being universally consigned to the dustheap of lost causes, remains influential today in a certain school of philosophy. I refer of course to Heidegger and his many followers, in short to the camp of hermeneutics. In his *Introduction to Metaphysics*, Heidegger finds the Greek and German languages supreme in their ability to declare the truth of Being.[9] But the mysteries of Heidegger are best left to his hierophants and those aspiring to that dubious status. These murky waters have nothing in common with either the values of the Enlightenment or the Misesian approach to the study of society. I do not think that even so convinced a defender of the wisdom of tradition as Hayek, though his views have in them more than a tinge of Romantic influence, would do other than turn aside from such odd tenets.[10]

I have presented a largely sympathetic picture of Wells' account, and it does seem to me that his approach is more adequate than the currently most favored schools of linguistic origins (e.g., Chomsky's innatism). But one can hardly disguise from readers the fact that Wells' theory is unlikely to receive a warm welcome from the majority of philosophers.

Why not? The answer lies in the fact that Wells' theory flies directly in the face of one of the most influential works on contemporary philosophy, Ludwig Wittgenstein's *Philosophical Investigations*. (Incidentally, Wittgenstein was Hayek's cousin.) According to Wittgenstein, there are no "natural" signs. Any claimed exception (e.g., our case of hand waving in the face of danger) presupposes the existence of a community who have through habit adopted a "language game" in which a sign has a particular meaning. Contrary to Condillac and his twentieth-century successors, language cannot exist in the absence of conventionally accepted rules for the use of terms. Into the labyrinths of Wittgensteinian doctrine I cannot here enter. I raise the point only to support my guess that Wells' theory may unfortunately not have the success it richly deserves. If

Wittgensteinian objections do succeed in overthrowing Wells' account, the result will not be encouraging for the study of the origins of language. As Hattiangadi has effectively noted, it is difficult within the Wittgensteinian view to see how language can have originated at all.[11]

Whether or not one is attracted to the gestural account of language origins, however, it is difficult to deny the importance of Wells' book. He has depicted in clear and incisive fashion a nearly forgotten chapter of intellectual history of major importance. Economists who find its topic remote from their immediate concerns still ought to read it. In contrast to a very distinguished Austrian economist, Wells powerfully argues that at least one vital human institution was the product *both* of human action and of human design.

Review of G.A. Wells, *The Origins of Language* (Peru, Ill.: Open Court, 1987).

[1] All references to this book will be by page numbers in parentheses in the text.

[2] See, for example, his *Individualism and Economic Order* (Chicago: University of Chicago Press, 1948). This theme is a near constant in Hayek's work.

[3] F.A. Hayek, *Law, Legislation, and Liberty*, vol. I (Chicago: University of Chicago Press, 1973).

[4] See F.A. Hayek, ed., *Collectivist Economic Planning* (London: George Routledge & Sons, 1935). Hayek contributed to this influential volume as well as editing it.

[5] Walter Ullmann, *Principles of Government and Politics in the Middle Ages* (London: Methuen, 1961).

[6] (Peru, Illinois: Open Court, 1987).

[7] Ibid., p. 191ff.

[8] Fichte's work is conveniently available in English, with an excellent preface by G.A. Kelly.

[9] This work, first issued in 1943, appeared in a second "corrected" edition in 1952. In it, Heidegger left intact his reference to the "inner greatness" of National Socialism.

[10] Hayek's "unintended consequences of human action" bear some affinity with Hegel's *Cunning of Reason* (*List der Vernunft*), though it would be wrong either to view Hayek as a Hegelian or to view Hegel as entirely within the Romantic camp. In complete contrast with the traditionalists and their latter-day followers are the members of the Erlangen School, who emphasize the conscious construction of mathematical and

physical concepts. See Paul Lorenzen, *Constructive Philosophy* (Amherst: University of Massachusetts Press, 1987).

[11] Hattiangadi, p. 30.

The Politics of Hunger: A Review

Ralph Raico

States throughout history have persisted in severely encumbering and even prohibiting international trade. Seldom, however, can the consequences of such an effort—the obvious immediate results as well as the likely long-range ones—have been as devastating as in the case of the Allied (really, British) naval blockade of Germany in the First World War. This hunger blockade belongs to the category of forgotten state atrocities of the twentieth century. (Similarly, who now remembers the tens of thousands of Biafrans starved to death during the war of independence through the policy of the Nigerian generals supported by the British government?) Thus, C. Paul Vincent, a trained historian and currently library director at Keene State College in New Hampshire, deserves our gratitude for recalling it to memory in this scholarly and balanced study.

Vincent tellingly recreates the atmosphere of jubilation that surrounded the outbreak of the war that was truly the fateful watershed of the twentieth century. While Germans were overcome by an almost mystical sense of community (the economist Emil Lederer declared that now *Gesellschaft* [Society] had been transformed into *Gemeinschaft* [Community]), the British gave themselves over to their own patented form of cant. The socialist and positivist-utopian H.G. Wells, for instance, gushed: "I find myself enthusiastic for this war against Prussian militarism. . . . Every sword that is drawn against Germany is a sword drawn for peace." Wells later coined the mendacious slogan, "the war to end war." As the conflict continued, the state-socialist current that had been building for decades overflowed into massive government intrusions into every facet of civil society, especially the economy. The German *Kriegssozialismus* that became a model for the Bolsheviks on their assumption of power is well known, but, as Vincent points out: "the British achieved control over their economy unequaled by any of the other belligerent states." Everywhere state seizure of social power was accompanied and fostered by propaganda drives unparalleled in history to that time. In this respect, the British

were very much more successful than the Germans, and their masterly portrayal of the "Huns" as the diabolical enemies of civilization, perpetrators of every imaginable sort of "frightfulness,"[1] served to mask the single worst example of barbarism in the whole war, aside from the Armenian massacres. This was what Lord Devlin frankly calls "the starvation policy" directed against the civilians of the Central Powers (particularly Germany),[2] the plan that aimed, as Winston Churchill, First Lord of the Admiralty in 1914 and one of the framers of the scheme, admitted, to "starve the whole population—men, women, and children, old and young, wounded and sound—into submission."[3]

The British policy was in contravention of international law on two major points.[4] First, in regard to the character of the blockade, it violated the Declaration of Paris of 1856, which Britain itself had signed, and which, among other things, permitted "close" but not "distant" blockades. A belligerent was allowed to station ships near the three-mile limit to stop traffic with an enemy's ports; it was not allowed simply to declare areas of the high seas comprising the approaches to the enemy's coast to be off-limits. This is what Britain did on November 3, 1914, when it announced, allegedly in response to the discovery of a German ship unloading mines off the English coast, that henceforth the whole of the North Sea was a military area, which would be mined and into which neutral ships proceeded "at their own peril." Similar measures in regard to the English Channel insured that neutral ships would be forced to put into British ports for sailing instructions or to take on British pilots. During this time they could easily be searched, obviating the requirement of searching them on the high seas.

This introduces the second and even more complex question: that of contraband. Briefly, following the lead of the Hague Conference of 1907, the Declaration of London of 1909 considered food to be "conditional contraband," that is, subject to interception and capture only when intended for the use of the enemy's military forces. This was part of the painstaking effort, extending over generations, to strip war of its most savage aspects by establishing a sharp distinction between combatants and noncombatants. Among the corollaries of this was that food not intended for military use could legitimately be transported to a neutral port, even if it ultimately found its way to the enemy's territory. The House of Lords had refused its consent to the Declaration of London, which did not, consequently, come into

full force. Still, as the U.S. government pointed out to the British at the start of the war, the Declaration's provisions were in keeping "with the generally recognized principles of international law." As an indication of this, the British admiralty had incorporated the Declaration into its manuals.

The British quickly began to tighten the noose around Germany by unilaterally expanding the list of contraband and by putting pressure on neutrals (particularly the Netherlands, since Rotterdam more than any other port was the focus of British concerns over the provisioning of the Germans) to acquiesce in its violations of the rules. In the case of the major neutral, the United States, no pressure was needed. With the exception of the beleaguered Secretary of State, William Jennings Bryan, who resigned in 1915, the American leaders were amazingly sympathetic to the British point of view. For example, after listening to complaints from the Austrian ambassador on the illegality of the British blockade, Colonel House, Wilson's intimate advisor on foreign affairs, noted in his diary: "He forgets to add that England is not exercising her power in an objectionable way, for it is controlled by a democracy."[5]

The Germans responded to the British attempt to starve them into submission by declaring the seas around the British Isles a "war zone." Now the British openly announced their intention of impounding any and all goods originating in or bound for Germany. Although the British measures were lent the air of reprisals for German actions, in reality the great plan was hatched and pursued independently of anything the enemy did or refrained from doing:

> The War Orders given by the Admiralty on 26 August [1914] were clear enough. All food consigned to Germany through neutral ports was to be captured and all food consigned to Rotterdam was to be presumed consigned to Germany. . . . The British were determined on the starvation policy, whether or not it was lawful.[6]

The effects of the blockade were soon being felt by the German civilians. In June 1915, bread began to be rationed. "By 1916," Vincent states, "the German population was surviving on a meager diet of dark bread, slices of sausage without fat, an individual ration of three pounds of potatoes per week, and turnips," and that year the potato crop failed. The author's choice of telling quotations from eye witnesses helps to bring

home to the reader the reality of a famine such as had not been experienced in Europe outside of Russia since Ireland's travail in the 1840s. As one German put it: "Soon the women who stood in the pallid queues before shops spoke more about their children's hunger than about the death of their husbands." An American correspondent in Berlin wrote:

> Once I set out for the purpose of finding in these food-lines a face that did not show the ravages of hunger. . . . Four long lines were inspected with the closest scrutiny. But among the 300 applicants for food there was not one who had had enough to eat for weeks. In the case of the youngest women and children the skin was drawn hard to the bones and bloodless. Eyes had fallen deeper into the sockets. From the lips all color was gone, and the tufts of hair which fell over the parchmented faces seemed dull and famished—a sign that the nervous vigor of the body was departing with the physical strength.

Vincent places the German decision in early 1917 to resume and expand submarine warfare against merchant shipping—which provided the Wilson administration with its final pretext for entering the war—in the framework of collapsing German morale. The German U-boat campaign proved unsuccessful and, in fact, by bringing the United States into the conflict, aggravated the famine. "Wilson ensured that every loophole left open by the Allies for the potential reprovisioning of Germany was closed . . . even the importation of foodstuffs by neutrals was prevented until December 1917." Rations in Germany were reduced to about one thousand calories a day. By 1918, the mortality rate among civilians was 38 percent higher than in 1913; tuberculosis was rampant, and, among children, so were rickets and edema. Yet, when the Germans surrendered in November 1918, the armistice terms, drawn up by Clemenceau, Foch, and Pétain, included the continuation of the blockade until a final peace treaty was ratified. In December 1918, the National Health Office in Berlin calculated that 763,000 persons had died as a result of the blockade by that time; the number added to this in the first months of 1919 is unknown.[7] In some respects, the armistice saw the intensification of the suffering, since the German Baltic coast was now effectively blockaded and German fishing rights in the Baltic annulled.

One of the most notable points in Vincent's account is how

the perspective of “zoological” warfare, later associated with the Nazis, began to emerge from the maelstrom of ethnic hatred engendered by the war. In September 1918, one English journalist, in an article titled “The Huns of 1940,” wrote hopefully of the tens of thousands of Germans now in the wombs of famished mothers who “are destined for a life of physical inferiority.”[8] The “famous founder of the Boy Scouts, Robert Baden-Powell, naively expressed his satisfaction that the German race is being ruined; though the birth rate, from the German point of view, may look satisfactory, the irreparable harm done is quite different and much more serious.”

Against the genocidal wish-fantasies of such thinkers and the heartless vindictiveness of Entente politicians should be set the anguished reports from Germany by British journalists and, especially, army officers, as well as by the members of Herbert Hoover’s American Relief Commission. Again and again they stressed, besides the barbarism of the continued blockade, the danger that famine might well drive the Germans to Bolshevism. Hoover was soon persuaded of the urgent need to end the blockade, but wrangling among the Allies, particularly French insistence that the German gold stock could not be used to pay for food, since it was earmarked for reparations, prevented action. In early March 1919, General Herbert Plumer, commander of the British Army of Occupation, informed Prime Minister Lloyd George that his men were begging to be sent home; they could no longer stand the sight of “hordes of skinny and bloated children pawing over the offal” from the British camps. Finally, the Americans and British overpowered French objections, and at the end of March, the first food shipments began arriving in Hamburg. But it was only in July, after the formal German signature to the Treaty of Versailles, that the Germans were permitted to import raw materials and export manufactured goods.

Besides the direct effects of the British blockade, there are the possible indirect and much more damaging effects to consider. A German child who was ten years old in 1918, and who survived, was twenty-two in 1930. Vincent raises the question of whether the miseries and suffering from hunger in the early, formative years help account to some degree for the enthusiasm of German youth for Nazism later on. Drawing on a 1971 article by Peter Loewenberg, he argues in the affirmative.[9] Loewenberg’s work, however, is a specimen of psychohistory and his conclusions are explicitly founded on psychoanalytic

doctrine. Although Vincent does not endorse them unreservedly, he leans toward explaining the later behavior of the generation of German children scarred by the war years in terms of an emotional or nervous impairment of rational thought. Thus, he refers to "the ominous amalgamation of twisted emotion and physical degradation, which was to presage considerable misery for Germany and the world" and which was produced in large part by the starvation policy. But is such an approach necessary? It seems perfectly plausible to seek for the mediating connections between exposure to starvation (and the other torments caused by the blockade) and later fanatical and brutal behavior in commonly intelligible (though, of course, not thereby justifiable) human attitudes generated by the early experiences. These attitudes would include hatred, deep-seated bitterness and resentment, and a disregard for the value of life of "others"—because the value of one's "own" life had been so ruthlessly disregarded. A starting point for such an analysis could be Theodore Abel's 1938 work, *Why Hitler Came to Power: An Answer Based on the Original Life Stories of Six Hundred of His Followers*. Loewenberg's conclusion after studying this work that "the most striking emotional affect expressed in the Abel autobiographies are the adult memories of intense hunger and privation from childhood."[10] An interpretation that would accord the hunger blockade its proper place in the setting for the rise of Nazi savagery has no particular need for a psychoanalytical or physiological underpinning.

Occasionally Vincent's views on issues marginal to his theme are distressingly stereotyped: he appears to accept an extreme Fischer-school interpretation of guilt for the origin of the war as adhering to the German government alone, and, concerning the fortunes of the Weimar Republic, he states: "That Germany lost this opportunity is one of the tragedies of the twentieth century. . . . Too often the old socialists seemed almost terrified of socialization." The cliché that, if only heavy industry had been socialized in 1919, then German democracy could have been saved, was never very convincing.[11] It is proving less so as research begins to suggest that it was precisely the Weimar system of massive state intervention in the labor markets and the advanced welfare-state institutions (the most "progressive" of their time) that so weakened the German economy that it collapsed in the face of the Great Depression.[12] This collapse, particularly the staggering unemployment that accompanied it, has long been considered by scholars to have been a major cause

of the Nazi rise to power in 1930–33.

These are, however, negligible points in view of the service Vincent has performed both in reclaiming from oblivion past victims of a murderous state policy and in deepening our understanding of twentieth-century European history. There has recently occurred in the Federal Republic of Germany a "fight of historians" over whether the Nazi slaughter of the European Jews should be viewed as "unique" or placed within the context of other mass murders, specifically the Stalinist atrocities against the Ukrainian peasantry.[13] Vincent's work suggests the possibility that the framework of the discussion ought to be widened more than any of the participants has so far proposed.

Review of C. Paul Vincent, *The Politics of Hunger: The Allied Blockade of Germany, 1915–1919* (Athens, Ohio, and London: Ohio University Press, 1985).

[1] Cf. H.C. Peterson, *Propaganda for War. The Campaign against American Neutrality, 1914–1917* (Norman, Okla.: University of Oklahoma Press, 1939), especially pp. 51–70, on propaganda regarding German "atrocities."

[2] Patrick Devlin, *Too Proud to Fight: Woodrow Wilson's Neutrality* (New York: Oxford University Press, 1975), pp. 193–198.

[3] Cited in Peterson, *Propaganda*, p. 83.

[4] Cf. Devlin, Too *Proud to Fight*, pp. 158–67,191–200; and Thomas A. Bailey and Paul B. Ryan, *The Lusitania Disaster: An Episode in Modern Warfare and Diplomacy* (New York: Free Press, 1975), pp. 27–33.

[5] Cited in Walter Millis, *Road to War: America, 1914–1917* (Boston: Houghton Mifflin, 1935), p. 84. The U.S. government's bias in favor of the Allied cause is well documented. Thus, even such an "establishment" diplomatic historian as the late Thomas A. Bailey, in his *A Diplomatic History of the American People*, 9th ed. (Englewood Cliffs, N.J.: Prentice-Hall, 1974), p. 572, states: "The obvious explanation of America's surprising docility [in the face of British violations of neutrals' rights] is that the Wilson administration was sympathetic with the Allies from the beginning." The partisanship of Wilson, his advisor Colonel House, Secretary of State Robert Lansing, and, especially, the American ambassador to England, Walter Hines Page, is highlighted in Bailey's even-handed account of the entry of the United States into the war (pp. 562–95). The reader may find it an interesting exercise to compare Bailey's treatment with that

from a newer generation of "establishment" authority, Robert H. Ferrell, *American Diplomacy: A History*, 3rd ed. (New York: Norton, 1975), pp. 456–74. Ferrell gives no hint of the administration's bias toward Britain. Of the notorious British propaganda document luridly detailing the nonexistent German atrocities in Belgium, he writes: "It is true that in the light of postwar investigation the veracity of some of the deeds instanced in the Bryce Report has come into question" (p. 462). (On the Bryce Report, see Peterson, *Propaganda*, pp. 53–58, and Phillip Knightley, *The First Casualty* [New York: Harcourt Brace Jovanovich, 1975], pp. 83–84.)

Ferrell's account could itself pass muster as somewhat refined Entente propaganda. Lest American college students miss the moral of his story, he ends with the assertion: "It was certainly in the interest of national security to go to war . . . logic demanded entrance."

[6] Devlin, Too *Proud to Fight*, pp. 193, 195.

[7] The British historian Arthur Bryant, writing in 1940, put the figure even higher, at 800,000 for the last two years of the blockade, "about fifty times more than were drowned by submarine attacks on British shipping." Cited in J.F.C. Fuller, *The Conduct of War, 1789–1961* (London: Eyre & Spottiswoode, 1961), p. 178.

[8] F.W. Wile, "The Huns of 1940," *Weekly Dispatch*, September 8, 1918. Vincent notes that he is citing the article from a book published in Stuttgart in 1940.

[9] Peter Loewenberg, "The Psychohistorical Origins of the Nazi Youth Cohorts," *American Historical Review* 76, no. 5 (December 1971): 1457–502. Loewenberg writes, for instance:

> The war and postwar experiences of the small children and youth of World War I explicitly conditioned the nature and success of National Socialism. The new adults who became politically effective after 1929 and who filled the ranks of the SA and the other paramilitary party organizations . . . were the children socialized in the First World War. (1458)

[10] Ibid., 1499.

[11] The leading advocate of socialization in Germany after the war was Emil Lederer, whose remarks about *Gemeinschaft* and *Gesellschaft* were cited previously. He denied, however, that the socialized economy would be more productive than

capitalism. See Karl Pribram, *A History of Economic Reasoning* (Baltimore: Johns Hopkins University Press, 1983), p. 382.

[12] The recent debate among German economic historians on this question is discussed in Jürgen von Kruedener, "Die Überforderung der Weimarer Republik als Sozialstaat," *Geschichte und Gesellschaft* 11, no. 3 (1985): 358–76.

[13] *Historiker-"Streit." Die Dokumentation der Kontroverse um die Einzigartigkeit der nationalsozialistischen Judenvernichtung* (Munich: Piper, 1987).

Articles

Eugen Richter and Late German Manchester Liberalism: A Reevaluation

Ralph Raico

For several generations now there has existed an overarching interpretation of modern history conditioning and shaping the views held by nearly all educated people on the issue of socialism and the market economy. This interpretation goes roughly as follows: once there was a "class"—"the" bourgeoisie—that came into being with the colossal economic and social changes of early modern history, and strove for recognition and domination. Liberalism, which admittedly helped to achieve a limited degree of human liberation, was the ideological expression of the bourgeoisie's self-interested struggle.[1] Meanwhile, however, another, much larger class came into being, "the" working class, victims of the triumphant bourgeoisie. This class strove in its turn for recognition and domination, and, accordingly, developed its own ideology, socialism, which aimed, through revolution, at the transition to a higher, broader level of human liberation. The natural and inevitable conflict of interests of these two classes—basically, of the exploiters and the exploited—fills modern history, and has led in the end, in the welfare state of our own time, to a kind of accommodation and compromise. With this historical paradigm I think we are all quite familiar.

Recently, however, a different interpretation has begun to gain ground. The outstanding historian Ernst Nolte, of the Free University of Berlin, has expressed its central point:

> The real and modernising revolution is that of liberal capitalism or of economic freedom, which began 200 years ago in England and which was first completed in the USA. This revolution of individualism was challenged at an early date by

> the so-called revolutionary socialism, whose guideline was the archaic community, with its transparency of social conditions, as the most comprehensive counterrevolution, namely as the tendency for totalitarian collectivism.[2]

Although capitalism "radically chang[ed] the living conditions of all those affected in a relatively short time and improv[ed] them to an extraordinary degree, at least materially," "it did not understand how to awaken love."[3] The great capitalist revolution called forth a socialist movement, which "in a certain sense [was] thoroughly reactionary, indeed, radical-reactionary."[4]

The Place of Liberalism

This more recent conception suggests a new interpretation of liberalism. Liberalism is, in fact, the ideology of the capitalist revolution that prodigiously raised the living standards of the mass of people; a doctrine gradually elaborated over several centuries, which offered a new concept of social order, encompassing freedom in the only form suited to the modern world. Step by step, in practice and theory, the various sectors of human activity were withdrawn from the jurisdiction of coercive authority and given over to the voluntary action of self-regulating society. The first great victory was freedom in religious matters. The world-historical significance of religious liberty lies precisely in the fact that it demonstrated, in this first, great area of human existence, how society could be left to its own devices.

Practically all the peoples of western and central Europe (as well as the Americans) contributed to the working out of the liberal idea and the liberal movement. Not just the Dutch, French, Scots, English, and Swiss, but, for instance, in Spain, the Late Scholastics of the School of Salamanca and elsewhere,[5] and a number of Italians, especially at the beginning of political economy. In this evolution, the Germans also played an often overlooked part.[6]

Particularly striking for foreigners who have concerned themselves with the problem of German liberalism has been the bitter hostility that it met with in its own time and at the hands of historians, and which is linked to the first, conventional interpretation of modern history described above. Paul Kennedy

has quite accurately referred to “the sheer venom and blind hatred behind so many of the assaults in Germany upon *Manchestertum* [Manchesterism].”[7]

This hostility was directed especially against the man who was for two generations in Germany *the* representative of the liberal movement that embraced all civilized nations: Eugen Richter. Malice has now been replaced by neglect. Last year, in July, was the 150th anniversary of Richter’s birth, and if any notice was taken of the occasion in the Federal Republic, aside from my own very modest contribution,[8] it has not come to my attention. That should not be surprising, however. Since both the conservatives and the socialists—the two camps that have by and large written the history of Germany—found Richter insufferable, he has usually been treated disparagingly or else disregarded. Thus, he remains virtually unknown to the great majority of even educated people. Given the older historical interpretation, this circumstance makes a certain sense; it by no means corresponds to the newer one. Thus, an attempt to evaluate Richter’s significance for German liberalism and German history is perhaps called for.

Differences of Opinion on Richter

Eugen Richter[9] was the brilliant, if occasionally too masterful, leader of the Progressive Party (*Fortschrittspartei*) and later of the Liberals (*Freisinn*), the political expressions of German “Left Liberalism,”[10] or “determined” (*entschieden*) liberalism, through 30 years, in the Imperial German Reichstag and in the Prussian House of Representatives; he was, moreover, an untiring journalist and publisher.[11] Outside of a narrow group of friends and political associates, the attitudes and opinions on Richter, in his own time and afterwards, have been mostly very negative.[12] This is naturally the case on the authoritarian-conservative side: Crown Prince Wilhelm, later Kaiser Wilhelm II, even hatched a plan (never realized) to have Richter “beaten up” by six junior officers,[13] and Richter’s old adversary, Prince Bismarck, confided to the old Kaiser, Wilhelm I, that it was among men like Richter that “the material for deputies to the [French Revolutionary] Convention” was to be found.[14] Hans Delbrück, whose portrayal of Richter influenced later writers, compared him to the Athenian demagogue Cleon and branded him the leader of a party whose highest passion was reserved for pieces of silver,[15] while for the Marxist Franz Mehring, Richter

was merely "a servant and helper of Big Capital."[16] Richter's "rigidity," "dogmatism," and "carping doctrinairism" have been repeatedly attacked,[17] and a present-day German historian simply reflected the nearly unanimous view of his colleagues when he summarily characterized Richter as "the eternal nay-sayer."[18]

Yet even Bismarck was compelled to concede: "Richter was certainly the best speaker we had. Very well-informed and conscientious; with disobliging manners, but a man of character. Even now he does not turn with the wind. . . ."[19] Another opponent, this time from the liberal camp, the first President of the Federal Republic, Theodor Heuss, admitted that Richter was "the most influential leader of 'determined' liberalism," and "certainly in detail work [sic] the most knowledgeable deputy in the German parliaments . . ."[20] An observer closer in spirit to his subject expressed it more simply: Richter "was the liberal doctrine incarnate."[21]

Richter's Career

Eugen Richter was born on July 30, 1838, in Düsseldorf, the son of a regimental doctor. The atmosphere in the parental home was "oppositional," e.g., the family read the *Kölnische Zeitung* "eagerly"—evidentally, rather bold behavior for the time. Richter's "predominantly critical-rational disposition" developed from his early youth.[22] He studied political science with Dahlmann at Bonn and with Robert von Mohl at Heidelberg, where he also studied public finance with Karl Heinrich Rau, then the most celebrated expert in the field. While still a student he went to Berlin, where the proceedings of the Prussian House of Representatives interested him much more than his university lectures. He began attending the meetings of the *Kongress deutscher Volkswirte* (Congress of German Economists) and, through newspapers and journal articles, avidly took part in the growing movement for economic liberalism in Germany; he was also active in the consumer cooperative movement.

By 1884 Richter headed a united Left Liberal party, the *Deutschfreisinnige Partei*, that boasted of more than 100 seats in the Reichstag. Liberalism's hour in Germany seemed to have come: the Kaiser, Wilhelm I, was very old, the Crown Prince, Friedrich, the most liberal of all the Hohenzollerns. It turned out otherwise, however, than might have been desirable for the Germans. Bismarck's political skill saw to it that the *Freisinnige*

Partei was smashed in the next two elections, and when Friedrich finally ascended the throne, in 1888, he was already mortally ill. These vicissitudes could make no difference in Richter's political convictions, however. For another two decades he held fast to the same principles, which appeared increasingly obsolete and irrelevant. He was the last authentic liberal leader in the parliament of any great power.

Social Philosophy and the Two-Front Strategy

Regarding his early journalistic activity, it is noteworthy that, already as a young man, Richter emphasized not only the economic disadvantages of the antiquated mercantilist system, but at the same time the infringement of civil and political freedom bound up with that system. Thus, in an early brochure, *On the Freedom of the Tavern Trade*, he attacked the concessions-system, which invested the political authorities with wide-ranging licensing and regulatory authority for all trades and professions:

> As long as the police administration in our state unites in itself such legislative, judicial, and executive powers, Prussia does not yet deserve the name of a *Rechtsstaat*.[23]

The cornerstone of Richter's social philosophy was the connection between political and economic freedom, a conception that distinguished him, and Left Liberalism in general, from the mass of "National Liberals." Two decades later, Richter closed his great speech against Bismarck's protective tariff with the words:

> Economic freedom has no security without political freedom, and political freedom can find its security only in economic freedom.[24]

This tenet determined Richter's continuing political strategy. All his life, he conducted a "two-front war," against Bismarckian "pseudo-constitutionalism" and a recrudescent mercantilism on the one hand, and the rising socialist movement on the other.[25]

Richter and the other *entschieden* liberals have often been reproached for this policy. Critics maintain that the Left Liberals should have allied with the Social Democrats, in a common

resistance to the militarist-authoritarian Second Reich, and Richter's famous "rigidity" and "dogmatism" are supposed to be largely responsible for the fact that such a united front never came into existence. Some historians even give the impression that liberal opposition to Social Democracy in Imperial Germany is only comprehensible as the product of "fear" of the "lower orders."[26]

But it can scarcely be surprising that Richter rejected such an alliance. He saw himself confronted with a socialist party that did not trouble to conceal its ultimate aim, abolition of the system of private property and the market economy, and that viewed "the class-struggle between bourgeoisie and proletariat as the 'pivot of all revolutionary socialism.'"[27] After 1875, the Social Democratic Party of Germany (SPD) was primarily a Marxist party, and, despite later revisionist tendencies, its acknowledged leaders, like Bebel, Liebknecht, and Kautsky, were confirmed orthodox Marxists. Of course, the SPD presented various democratic demands "to start with"; its ultimate goal remained, however, the social elimination of all "non-proletarians."

The Social Democratic standpoint confronting Richter may be illustrated by the example of Franz Mehring, a major theoretician and the biographer of Marx. In 1903, Mehring wrote, in the *Neue Zeit*, of the German "bourgeoisie" (and its defenders): "It had to be aware, and basically it was aware, that, without the help of the working-class, it could not defeat absolutism and feudalism. It had further to be aware, and basically it was also aware, that, in the moment of victory, its previous alliance-partner would face it as an adversary," at which point the bourgeoisie would presumably fall victim to the proletariat in the final, decisive conflict. Nonetheless, Mehring insisted that in this alleged state of affairs the bourgeoisie ought to draw the conclusion "that a pact with the working-class on tolerable [sic] conditions offers it the only possibility it has."[28] But for liberals like Richter, the Marxist scenario was by no means all that "tolerable." It is understandable, therefore, that Richter held that the "Social Democratic state of the future," because it was hypothetical, was for the time being less dangerous than the existing "military state," yet essentially "much worse."[29]

Even aside from the fact that "from 1869, meetings of the Progressive Party in Berlin were violently disrupted by the Social Democrats,"[30] how would an alliance with the Social

Democrats have been at all ideologically conceivable? As liberals, men like Richter viewed socialism as a kind of counter-revolution, and believed that the achievement of the socialist goal would lead both to appalling poverty and to state absolutism. There was nothing in the socialist doctrine of the time that would suggest otherwise. Historians would do well to recognize that at least a part of the blame for the non-occurrence of a common front against militarism in Germany must be borne by the Social Democrats themselves.

Pictures of a Social Democratic Future

For their part, the socialists engaged in a relentlessly scathing critique of the liberal economic order. But, as Richter pointed out:

> The Social Democrats are very garrulous in criticizing the present social order, but they are careful not to clarify in detail the goal that is supposed to be achieved through the latter's destruction.[31]

This omission Richter attempted to make good in his *Pictures of a Social Democratic Future*.[32] In its time, this little book, with its ironic subtitle, "Freely drawn after Bebel," was a sensation. It was translated into a dozen languages, with more than a quarter-million copies printed in Germany alone. It must be conceded that in some respects Richter's narrative is dubious. It leans too heavily on the pathos of family problems under the new socialist regime; but that was to be expected, since it was directed at a wide, popular audience. Sometimes the work even verges on the ridiculous, especially in connection with the relations of social equality that will supposedly obtain under socialism, e.g., the new Reich Chancellor must shine his own boots and clean his own clothes, in Richter's account.

The explanation for this, however, is that Richter took the egalitarian promises of the socialists too literally, too *seriously*. He lacked any inkling of Marxism's tendency to bring to power a *new class* of higher-echelon state functionaries. Still, Richter was able to anticipate many of the characteristics later displayed by Marxist states. Emigration is prohibited in Marxist Germany, since "persons who owe their education and training to the State cannot be accorded the right to emigrate, so long as they are of an age when they are obliged to work."[33] Bribery and

corruption are to be found everywhere,[34] and the products of the nationalized economy are unable to meet the standards of competition on the world market.[35] But above all, Richter emphasized the connection between economic and political freedom:

> what is the use of freedom of the press, if the government is in possession of all the printing presses, what does freedom of assembly avail, if all the meeting places belong to the government? . . . in a society in which there is no more personal and economic freedom, even the freest form of the state cannot make political independence possible.[36]

When the worst imaginable happens and the socialist state proves incapable of provisioning the German Army as the Fatherland is invaded by France and Russia, a counter-revolution breaks out, restoring a free society.

Marxists and Conservatives: Mutual Aid

Richter often tried to present his two-sided campaign as part of one and the same war, by arguing that it was a question merely of two forms of state paternalism. Interestingly, this interpretation was supported from an unexpected quarter, although without Richter's normative charge. Accused of political offenses, the founder of German socialism, Ferdinand Lassalle, addressed his judges as follows:

> As wide are the differences that divide you and me from one another, Sirs, against this dissolution of all morality [threatening from the liberal camp] we stand shoulder to shoulder! I defend *with* you, the primeval Vestal flame of all civilization, the State, against those modern barbarians [the laissez-faire liberals].[37]

Richter reiterated that the right-wing parties—the Conservatives and the Anti-Semites—aided socialism "especially [by] the agitation against mobile capital, against the exploitation it allegedly perpetrates, and, moreover, by the limitless promises handed out to all occupational classes of special state help and provision."[38] In turn, socialism helped the Conservatives and Anti-Semites through its revolutionary threats, intimidating the

middle classes and driving them into the arms of a strong State power.[39]

State Socialism and *Sozialpolitik*

Richter fought the state-socialist program proposed by Bismarck, including the nationalization of the Prussian railroads and the establishment of state monopolies for tobacco and brandy, and, naturally, Bismarck's turn towards protectionism, towards rendering dearer the cost of necessities, by which the great Chancellor, landowner, and hater of the "Manchester money-bags" manifested his compassion for the poor. A "passionate opponent of cartels," Richter considered the planned tariff wall "the ideal nurturing ground for the formation of new cartels."[40] While Richter, together with other liberal leaders, such as Ludwig Bamberger, supported the introduction of the gold standard in the newly formed Empire, unlike them he opposed the centralization of the banking system through the creation of a *Reichsbank*; such a central bank, he felt, would tend to privilege "big capital and big industry."[41]

Perhaps Richter's most famous attack in this field was directed against Bismarck's *Sozialpolitik*, with which the modern welfare state was born. Richter, together with Bamberger, was the chief speaker in opposition to the program, which began with the accident insurance bill of 1881, and over the years he persevered in his point of view when other liberal critics were converted to the new approach. One remark of his was, and is, deemed particularly notorious: "A special social question does not exist for us [the Progressives]. *The social question is the sum of all cultural questions*"[42]—by which he probably meant that, in the last analysis, the standard of living of working people can only be raised through higher productivity, a viewpoint perhaps not totally devoid of sense.

It is above all this opposition to *Sozialpolitik* with which Richter is reproached.[43] If one judges from the standpoint of world history as the tribunal of the world, Richter was certainly in the wrong. The welfare state is today in the process of conquering the whole globe; even the grandiose socialist idea is on the point of being reduced to a mere set of comprehensive welfare programs. Still, at least one of the reasons Richter advanced against the beginnings of the welfare state has a certain cogency.

> By hindering or restricting the development of independent funds, one pressed along the road of state-help and here awoke *growing claims on the State that, in the long run, no political system can satisfy*.[44]

Richter's words give pause, when one considers the complex of problems gathered under the heading, "The Over-Straining of the Weimar Social State" (the "most progressive social state in the world" in its day), the collapse of the Weimar Republic, and the accompanying seizure of power of the National Socialists.[45] One might also reflect on a circumstance that today appears entirely possible: that, after so many fatal "contradictions" of capitalism have failed to materialize, in the end a genuine contradiction has emerged, one that may well destroy the system, namely the incompatibility of capitalism and the limitless state welfarism yielded by the functioning of a democratic order.

Civil Liberties and *Rechtsstaat*

While the majority of the Progressives supported the *Kulturkampf*—it was the celebrated liberal and friend of Richter's, Rudolf Virchow, who gave the crusade against the German Catholic Church the label, "struggle of cultures"—Richter generally opposed this fateful conflict, which contributed so much to hardening the Catholic Church's hostility to liberalism.[46] Although he did not challenge his own close political collaborators as much as he might have—he claimed the *Kulturkampf* "did not particularly excite" him[47]—his own position was basically that of authentic liberalism, of, for instance, the French Catholic liberals and the Jeffersonians: absolute separation of State and Church, including complete freedom for private education and a principled rejection of any state subsidizing of any religion.[48]

Particularly interesting in this connection is that, for Richter, "the private school was the last possible refuge."[49] In contrast to the majority of German (and of French and other) liberals of his time, Richter was not inclined to place obstacles in the way of the private school system in order to promote his own secular *Weltanschauung*. As he expressed it:

> Even if it were true that by using the free private system of instruction schools would come into being

> less agreeable to my point of view than the public schools, I would still not let myself be led astray, or desist, out of a fear of Catholics or a fear of socialists.[50]

Similarly, Richter took to the field against the emerging anti-Semitic movement,[51] with which Bismarck coquetted in another of his efforts to subvert the liberals. Richter branded the anti-Semites "unnational," referring to them as "this movement damaging to our national honor." In turn, the anti-Semites labelled the Left Liberals around Richter "Jew guard-troops,"[52] and attempted, as had the Social Democrats, to disrupt liberal meetings in Berlin through violence.[53] Until the end of Richter's career, the German-Jewish middle classes formed an important part of the liberal following, largely on account of the liberal principle of separation of Church and State.[54]

In general, Richter had learned very well from the great theoreticians of the *Rechtsstaat*, Dahlmann and Mohl. He fought a bill to criminalize the slander and mockery of state institutions, marriage, and private property.[55] In the case of the Social Democrats themselves, he opposed the notorious and futile Socialist Laws, with which Bismarck attempted to suppress the SPD.[56] (In this matter, however, Richter appears for once to have played, in the midst of Reichstag machinations, the politician rather than the principled liberal.[57]) Similarly in the case of measures for the suppression of the Poles in Germany's eastern territories. Ideas and competing cultural values, in Richter's view, were not to be combatted by force.[58]

Richter's familiarity with the financial affairs of Prussia and of Germany was unequaled.[59] From the beginning of his parliamentary service, his attention was focused most particularly on the military budget, and this old question, which had produced the great constitutional conflict of the 1860s and split German liberalism on several occasions, accompanied him throughout his whole political life. A proponent of low taxes, especially for the poorer classes,[60] Richter was concerned with moderating the enormous financial demands of the military; in this effort he did not shy away even from arguments with the venerable Count von Moltke. Above all, he was concerned that the authority of the people's representatives, the Reichstag, should prevail over the Army, that the citizen should not be submerged in the soldier. Thus, his insistence on the two-year, rather than three-year, military service, which led to a further

split in the liberal party, in 1893.[61] His tireless probing into every single expenditure once caused Bismarck to cry out that in this fashion one would never come to the end of a budget.[62] Regarding his interrogation of a minister on a financial matter, Richter wrote, with proud underscoring: "*But I didn't let go*."[63] In the field of the spending of public money, that could have been his motto. Max Weber, a National rather than a Left Liberal, nevertheless declared:

> Despite Eugen Richter's pronounced unpopularity within his own party, he enjoyed an unshakable power position, which rested on his unequalled knowledge of the budget. He was surely the last representative who could check over every penny spent, to the very last canteen, with the War Minister; at least, this is what, despite any annoyance they felt, has often been admitted to me by gentlemen of this department.[64]

In this continuing feature of Richter's activity it is possible to see the most significant example in the whole history of parliamentary liberalism of the standpoint expressed by Frédéric Bastiat, when he wrote of peace and freedom and their connection with the "icy numbers" of a "vulgar state budget":

> The connection is as close as possible. A war, a threat of war, a negotiation that could lead to war—none of these is capable of coming to pass except by virtue of a small clause inscribed in this great volume [the budget], the terror of taxpayers. . . . Let us seek first of all frugality in government—peace and freedom we will have as a bonus.[65]

War, Peace, and Imperialism

As for his position on war and peace, Richter by and large shared the views of the radical-liberals, or "Manchester men," of the nineteenth century, who were hostile to war and highly skeptical of the arguments for large military establishments and colonial adventures.[66] In Britain this was the position, for instance, of Richard Cobden and John Bright, and later of Herbert Spencer; in France, of Benjamin Constant, Jean-Baptiste Say, Frédéric Bastiat, and many others. The German liberals, too, placed a high value on peace (although their attitude was somewhat skewed by

the problem of national unification). John Prince Smith and his followers were spokesmen for the ideal of "peace through free trade."[67]

Richter criticized increases in the strength of German military forces, "which [have] substantially contributed to a subsequent reciprocal increase in relation to France and Russia."[68] Admiral von Tirpitz's Naval Bills, from 1898 on, which, by setting Germany on a collision course with England, proved to be so fateful, were rejected and denounced by Richter.[69] For Wilhelm II's "*Weltpolitik*," he simply had no understanding. To the question, "What is '*Weltpolitik*'?" Richter replied: "Wanting to be present wherever something is going wrong."[70] Under his leadership, the *Freisinnige Volkspartei* continued to spurn it. The growing hostility between England and Germany nearly drove him to despair.[71]

Richter experienced the Age of Imperialism, which began for Germany with Bismarck's initiatives in 1884–85 regarding Africa and the South Seas. Although Richter repudiated these early initiatives, his attitude eventually was somewhat ambivalent, and requires an examination.

Richter's initial position, which he expressed in June, 1884, was that "colonial policy is extraordinarily expensive," and

> the responsibility for the material development of the colony, as well as for its formation, [is] to be left to the activity and entrepreneurial spirit of our seafaring and trading fellow citizens; the procedure followed should be less of the form of annexation of overseas provinces to the German Reich, than of the form of the granting of charters, on the model of the English royal charters . . . at the same time, to the parties interested in the colony should essentially be left its governing, and they should be accorded only the possibility of European jurisdiction and its protection that we could furnish without having standing garrisons there. For the rest, we hope that the tree will generally thrive through the activity of the gardeners who planted it, and if it does not, then the plant is an abortive one, and the damages affect less the Reich, since the costs we require are not significant, than the entrepreneurs, who were mistaken in their undertakings.[72]

Not "Dogmatism," but Pragmatism was Richter's Failing

A critic of Richter's, the afterwards-influential Weimar radical-democratic historian Eckart Kehr, maintained that Richter rejected the Naval Bills and *Weltpolitik* merely from "capitalist motives"—simply because they were not profitable.[73] The truth is that, as always, Richter supported his position with statistics and "pragmatic" reasons of all kinds. But even Kehr had to concede that, for Richter, there were also certain principles involved. As Kehr put it, Richter's standpoint was

> that the State should leave exports to the exporters, to industry, and to the merchants, and should not identify itself with the interests of the exporting class. . . . If industry . . . values the protection afforded by warships, let them go and shell out a part of the surplus profit they have captured in this way and build the cruisers for themselves.[74]

In other words, in this question Richter defended the same principle as on the questions of *Sozialpolitik* and the protective tariff: the State exists for the common good, and it ought not to be debased to an instrument of special interests. As naive as this attitude may be, it demonstrates that Richter manifested traits of what can be called the civic humanism or classical republicanism of the Stein-Hardenberg variety.[75]

The genuine failing in Richter's approach to imperialism is that he never systematically posed the question: "Profitable for *whom*?" It is true that Richter opposed Bismarck's colonial plans in the conviction that their core was "the burdening of the relatively unpropertied to the advantage of the relatively propertied."[76] Yet, in the next decade, when Germany occupied Kiaochow and undertook the construction of a railroad in Shantung, Richter showed himself much more amenable than before.[77] He declared:

> we [the *Freisinn*] view the acquisition of [Kiaochow] Bay otherwise and more favorably than all the previous flag-raisings in Africa and Australia [i.e., New Guinea]. The difference for us is that . . . China is an old civilized country . . . and that transformations that have been introduced into

> China, especially by the last Sino-Japanese War, could cause it to appear desirable to possess a base there for safeguarding our interests.[78]

Yet, Richter's last parliamentary speeches, in 1904, both in the Reichstag and in the Prussian House of Representatives, dealt with colonial questions in a sharply negative manner; again, he put himself forward as, above all, "the representative of the whole community, the representative of the taxpayers," and complained of "the neglect of urgent needs in domestic policy on account of the demands of a misconceived colonial policy."[79]

In explaining Richter's inconsistency in this area, the comment of Lothar Albertin is pertinent: Richter "remained, in regard to imperialism, without a theory [*theorielos*]."[80] He was never able to advance to the interpretation of imperialism of a Richard Cobden, according to which economic expansion supported by means of the state *always* redounds to the advantage of certain interests and to the disadvantage of the taxpayers and the majority. Thus, on this issue Richter belonged, in Wolfgang Mommsen's suggestive typology, to the "pragmatic" *entschieden* liberals, rather than to the "principled" radical-liberals.[81]

The Liberal Surrender

The final capitulation of German liberalism was inaugurated by the famous Friedrich Naumann,[82] today viewed in what pass for liberal circles in the Federal Republic as a kind of secular saint. Ambitious and endowed with enormous drive, Naumann was politically insightful as well. He recognized how the rules of the political game had changed:

> What fundamentally destroyed liberalism was the entry of the class-movement into modern politics, the entry of the agrarian and industrial-proletarian movement[s] . . . The old liberalism was no representative of a class-movement, but a world-view that balanced all differences among classes and social orders . . .[83]

In many respects, Naumann anticipated what is often considered the central insight of the School of Public Choice, when he described the development of modern democracy:

> The economic classes contemplated to what end they might make use of the new means of parliamentarianism . . . gradually, they learned that politics is fundamentally a great business, a struggling and a haggling *[Markten*] for advantages, over whose lap collects the most rewards cast by the legislation-machine.[84]

Richter, too, understood this.[85] The difference, however, was that Naumann *endorsed* the new rules of the game and wished to see a revived liberal movement adopt them wholeheartedly.[86] Together with his close friend, Max Weber, Naumann tried to fashion a liberalism more "adapted" to the circumstances of the twentieth century, and to win liberal leaders like Theodor Barth to his strategy. In contrast to the hopelessly prosaic Richter, Naumann knew how to shape a political vision and offer it to a new generation alienated from classical liberal ideas.[87] In his conception, liberalism had to make its peace with Social Democracy, by taking up the cause of *Sozialpolitik* and other "claims" of labor. At the same time, it had to snatch the national cause from the conservatives, by becoming the most zealous advocate of *Weltpolitik* and imperialism, and learning to appreciate the German drive to authority and prestige in the world (*Weltgeltung*). It must both "absorb state-socialist elements,"[88] and develop "an understanding for the power-struggle among the nations."[89] In short, liberalism must become "national-social." Naturally, Naumann was quite wild about the naval build-up. Already in 1900, he was convinced that war with England was a "certainty."[90]

For the sake of liberalism's future in Germany, Eugen Richter had to be "definitely fought."[91] Towards Richter, now the grand old man of Left Liberalism, Naumann had a kind of good-natured contempt. To one of his National Social audiences, he declared:

> Eugen Richter is unchangeable, and that is his greatness [Laughter]. But under this man, with his unique tenacity in work and will—which must be admired even by those who consider him a peculiar fossil—there are a whole series of people who say, in assemblies and in private: Of course we are for the fleet, but as long as Richter is alive—the man surely has his greatness [Laughter] . . .[92]

Evolution or Dissolution of Liberalism?

Even from the ranks of the younger leaders of Richter's own party there was growing criticism of his position on the colonies and the naval build-up. In 1902, on the floor of the Reichstag one of Richter's own protégés, Richard Eickhoff, thanked the War Minister on behalf of his constituents for a new armaments contract, taking the opportunity to request still more contracts, and joking that, *l'appetit vient en mangeant*.[93] With Richter's death in 1906, the old liberal negativity and carping criticism in military matters—and the history of German Manchesterism—came to an end. German Left Liberalism had no further objections to the Imperial military budget. Eight years later would come that summer of 1914 and the fateful machinations of the German General Staff, in the meanwhile grown omnipotent.

A few years after Richter's death, the then well-known nationalist historian, Erich Marcks, spoke of the "supersession of the older liberalism." This liberalism had, to be sure, saturated and impregnated the whole life of the modern nations; its effects continued to be felt everywhere. It was indestructible. But, added the biographer and adulator of Bismarck:

> With its own most distinctive political principle it has now been eclipsed. The idea of increased state force, the idea of power, has displaced it. And it is this idea that everywhere fills the leading men mightily and decisively dominates them: we have met with this same drive, quite apart from Russia, where it never disappeared, in [Theodore] Roosevelt and [Joseph] Chamberlain, and recognize it in Bismarck and Kaiser Wilhelm II.[94]

German Liberalism as "English Trader-Spirit"

Ultimately, the hostility between England and Germany, which Richter had so bitterly fought, contributed greatly to the outbreak of the World War I—the *hostility*, it should be noted, not the *economic competition*, since England and America were also in that sense competitors (and, of course, also customers), a circumstance that did not result in contention. German hatred of England[95] found its apotheosis, and its *reductio ad absurdum*, in a work by the scholar who was then perhaps the most famous

economic historian in the world: Werner Sombart, a leader of the interventionist *Verein für Sozialpolitik*. If one wishes to understand what the German anti-liberalism of the earlier twentieth century meant, one must consult this book. It is titled, *Traders and Heroes*,[96] and appeared in the war-year 1915. The underlying thesis is that there exist two spirits whose eternal strife comprises world history, the trader-spirit and the hero-spirit, and two peoples who today incarnate one or the other of these. Naturally, the English are the traders, the Germans the heroes. Sombart's work, to the extent that it is not a hymn of praise to war and death, is often amusing, e.g., when the author asserts: "The foundation of everything English is certainly the unfathomable spiritual limitedness of this people"[97]; or when he devotes a chapter to English science without mentioning Isaac Newton[98]; or when he maintains that the English since the time of Shakespeare have produced no cultural value.[99]

Much more serious and characteristic for the time is Sombart's seconding of Ferdinand Lassalle in dismissing the liberal ideal as merely that of "the nightwatchman state."[100] Many in the next two generations would echo Sombart's judgment on German liberalism, when he described its golden age and decline:

> But then there came another bleak time for Germany, when in the 1860s and 1870s the representatives of the so-called Manchester School quite shamelessly hawked imported English goods on the streets of Germany as German products. . . . And it is well-known how today this "Manchester theory" has been contemptuously shoved aside by theoreticians and practitioners in Germany as totally mistaken and useless.

The two sentences that conclude this passage, however, end in question marks:

> So that perhaps we may say that in the conception of the state, it is the German spirit that in Germany itself has achieved sole sway? Or does the English trader-spirit still haunt some heads?[101]

As regards Richter, it would be pointless to deny that a certain air of "trader-spirit," or, rather, of a middle-class mentality, always surrounded him. There is certainly some truth

in Theodor Heuss's accusation of a "monumental petty-bourgeois quality."[102] Richter knew no foreign languages, and the few times he travelled abroad it was to vacation in Switzerland. He seems to have had little interest in the affairs of other countries, even in the fortunes of the liberal movement there. Theodor Barth, spokesman for a Left Liberalism associated with the big banks and exporting merchant houses, jokingly replied to the question, what distinguished his own party from Richter's: if a man can tell Mosel from Rhine wine, he was a member of Barth's party, if not, then of Richter's.[103] But Richter's "petty-bourgeois quality" was something that his followers in the German middle-classes, in the liberal professions and small business, particularly in the great cities and above all in Berlin, felt, understood, and responded to.[104] A dwindling remnant as the years went by, they represented by and large a German version of William Graham Sumner's "Forgotten Man."[105] Six years after Sumner's classic description was published in the United States, the journalist Alexander Meyer wrote in Richter's *Freisinnige Zeitung* that the liberals were

> the party of the small man, who depends on himself and his own powers, who demands no gifts from the state, but only wants not to be hindered in improving his position to the best of his abilities and to strive to leave his children a better lot in life than came to him.[106]

A rare glimpse of such a German "forgotten man" is given in the moving portrayal by Bruno Walter of his father, a Berlin Jew,

> accountant in a larger silk firm, for which he worked, in gradually rising positions and with a growing income, for over fifty years. He was a quiet man, with a strict sense of duty and total dependability, and outside of his profession he knew only his family . . . he voted liberal and venerated Rudolf von Virchow and Eugen Richter.[107]

Undeniably "petty-bourgeois" through and through, such men had no great love for *Weltpolitik* and invigorating wars, or for the overthrow of all existing social conditions in the name of a Marxist dream; and they stood by Richter to the end.[108]

"What Richter Can Still Mean for Us"

In 1931, the 25th anniversary of Richter's death, the social-liberal historian Erich Eyck posed the question whether Eugen Richter could "still mean something for us."[109] After all that the Germans have gone through since Richter's time, it is easier to ascertain where his significance lies. He was, as regards Germany, *the* great advocate of the liberal world-revolution that constitutes the meaning of modern history. Through four decades he fought, as politician and publicist, for what Werner Sombart spurned as the "English trader-spirit": for peace; a decent life for all classes through the market economy and free trade; pluralism and the peaceable, rather than violent, clash of world-views and cultural values; citizenly self-respect, instead of servility; and the independence of the individual. As against all conservative reproaches, he was always a proud patriot, and could never understand why it was the Germans, of all people, who should not enjoy individual rights.

Florin Afthalion has remarked, in the case of Frédéric Bastiat:

> How are we to explain that a man who fought for free trade a century before the majority of the industrialized nations made it their official doctrine, who condemned colonialism also a century before decolonization . . . who, above all, proclaimed an era of economic progress and the enrichment of all classes of society, should be forgotten, while the majority of his intellectual adversaries, prophets of stagnation and of pauperization, who were wrong, still have freedom of the city?[110]

The case of Eugen Richter is similar, and perhaps even more egregious. Certainly, in his own time Richter "failed." But if this is proposed as the grounds for neglecting the most important of the political leaders of authentic liberalism in Germany, then the ready reply would be: which politician in modern German history before Adenauer and Erhard did *not* sooner or later fail? When all is said and done, Eugen Richter was a harbinger of the rule of law, free trade and the market economy, pluralism and peace, tendencies that, after the catastrophes promoted by the opposition camps, have brought in a rich harvest—that is to say, he was a harbinger of modernity. For what he was and what he

represented—if one may say so: from the mere fact that this German "never trusted any government"[111]—the old Rhineland liberal deserves to be better treated by the historians and, by the Germans, not to be completely forgotten.

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[1] See, for instance, Theo Schiller, *Liberalismus in Europa* (Baden-Baden: Nomos, 1979), p. 19: "Our starting-point is the universally accepted conclusion that the social interest-situation of the bourgeoisie was the foundation of classical liberalism."

[2] Ernst Nolte, "Between Myth and Revisionism: The Third Reich in the Perspective of the 1980s," in H. W. Koch, ed., *Aspects of the Third Reich* (London: Macmillan, 1985), p. 24. Nolte notes that the view he presents is that of Domenico Settembrini, of the University of Pisa.

[3] Ernst Nolte, *Marxism, Fascism, Cold War*, trans. Lawrence Krader (Atlantic Highlands, N.J.: Humanities Press, 1982), p. 79.

[4] Ibid., p. viii. In fact, the similarities and historical connections between the conservative and socialist critiques of liberal capitalism are remarkable; see, for instance, ibid., pp. 23–30.

[5] Alejandro A. Chaufen, *Christians for Freedom: Late Scholastic Economics* (San Francisco: Ignatius Press, 1986).

[6] See Ralph Raico, "Der deutsche Liberalismus und die deutsche Freihandelsbewegung: Eine Rückschau," *Zeitschrift für Wirtschaftspolitik* 36, no. 3 (1987): 263–81.

[7] Paul M. Kennedy, *The Rise of the Anglo-German Antagonism, 1860–1914* (London: Allen and Unwin, 1980), p. 152.

[8] Ralph Raico, "Eugen Richter: Ein unerbittlicher Liberaler," *Orientierungen zur Wirtschafts- und Gesellschaftspolitik* 37 (September 1988): 77–80.

[9] The literature on Richter is very meager. See, above all, Felix Rachfahl, "Eugen Richter und der Linksliberalismus im

Neuen Reich," *Zeitschrift für Politik* 5, nos. 2–3 (1912): 261–374. Also, Eugen Richter, *Jugenderinnerungen* (Berlin: Verlag "Fortschritt," 1893); idem., *Im alten Reichstag: Erinnerungen*, 2 vols. (Berlin: Verlag "Fortschritt," (1894–1896); Oskar Klein-Hattingen, *Geschichte des deutschen Liberalismus*, vol. 2: *Von 1871 bis zur Gegenwart* (Berlin-Schöneberg: Fortschritt-Buchverlag der "Hilfe," 1912); Leopold Ullstein, *Eugen Richter als Publizist und Herausgeber: Ein Beitrag zum Thema "Parteipresse"* (Leipzig: Reinicke, 1930); and Jesse Rohfleisch, *Eugen Richter: Opponent of Bismarck*, unpubl. diss., history, University of California, Berkeley, 1946. The most recent work on Richter, Ina Suzanne Lorenz, Eugen Richter: *Der entschiedene Liberalismus in wilhelminischer Zeit 1871 bis 1906* (Husum: Matthiesen, 1980), is unfortunately noteworthy above all because of the author's inexhaustible distaste for her subject and her total lack of understanding for Manchester liberalism in Germany.

[10] "Left Liberalism" is a direct translation of *Linksliberalismus* and refers to the middle- to late-nineteenth century German political movement in opposition to the regime-oriented National Liberals; it has no connection with what is sometimes called "left-liberalism" in the present day.

[11] Kurt Koszyk and Karl H. Pruys, *Wörterbuch zur Publizistik* (Munich-Pullach/Berlin: Verlag Dokumentation, 1970), pp. 223–25.

[12] See also Ralph Raico, "Der deutsche Liberalismus," p. 275.

[13] According to the report of the Austro-Hungarian Crown Prince Rudolf; Brigette Hamann, *Rudolf: Kronprinz und Rebell* (Munich/Zurich: Piper, 1978), p. 333.

[14] Otto von Bismarck, *Werke in Auswahl*, vol. 8, pt. A, *Erinnerung und Gedanke*, ed. Rudolf Buchner, with Georg Engel (Stuttgart: W. Kohlhammer, 1975), p. 732.

[15] Hans Delbrück, *Vor und nach dem Weltkrieg. Politische und historische Aufsätze 1902–1925* (Berlin: Stollberg, 1926), pp. 136–48; Annelise Thimme, *Hans Delbrück als Kritiker der wilhelminischen Epoche* (Düsseldorf: Droste, 1955), pp. 31–32.

[16] Franz Mehring, *Gesammelte Schriften*, Thomas Höhle, Hans Koch, and Josef Schleifstein, eds., vol. 14, *Politische Publizistik, 1891 bis 1914* ([East] Berlin: Dietz, 1964), p. 35. Why precisely of "Big Capital" is unclear.

[17] See, among innumerable other, Thomas Nipperdey, "Über einige Grundzüge der deutschen Partei geschichte," in *Moderne deutsche Verfassungsgeschichte (1815–1918)*, Ernst-

Wolfgang Böckenförde, ed., with Rainer Wahl (Cologne: Kiepenheuer and Witsch, 1972), p. 238, where the author writes of Richter's accentuation of the theoretical orientation of liberalism "to the very extreme of rigid dogmatism." Typical of many non-German historians is Kenneth D. Barkin, *The Controversy over German Industrialization, 1890–1902* (Chicago: University of Chicago Press, 1970), p. 239, who complains that Richter "had not shed the dogmatic liberal principle of non-intervention."

[18] Winfried Baumgart, *Deutschland im Zeitalter des Imperialismus, 1890–1914. Grundkräfte, Thesen, und Strukturen*, 5th ed. (Stuttgart: W. Kohlhammer, 1986), p. 135. Curiously, Baumgart passes this verdict in connection with Left Liberalism's turn towards support for the armaments policy of Wilhelm II, made possible by Richter's death.

[19] Rachfahl, "Eugen Richter und der Linksliberalismus im Neuen Reich," p. 371. Theodor Barth, one of Richter's many liberal opponents, declared: "Bismarck was no match for Richter dialectically, and the frequent eruptions of the Bismarckian temper against the implacable man of the opposition often sprang from the feeling that the omnipotent Chancellor would come up short in dialectical argumentation with Richter." In *Politische Porträts*, new ed. (Berlin: Schneider, 1923), p. 84.

[20] Theodor Heuss, *Friedrich Naumann: Der Mann, das Werk, die Zeit*, 2nd ed. (Stuttgart/Tübingen: Rainer Wunderlich, 1949), p. 180.

[21] Rachfahl, "Eugen Richter und der Linksliberalismus im Neuen Reich," p. 372.

[22] Ibid., pp. 262–63.

[23] Ibid., p. 266.

[24] Richter, *Im alten Reichstag*, vol. 2, p. 114.

[25] August Bebel, leader of the German socialists, described an early encounter with Richter, "whose chilly, reserved nature struck me even then. Richter gave the impression that he viewed all of us with sovereign disdain." August Bebel, *Aus Meinem Leben* (1910; reprint, Frankfurt am Main: Europäische Verlaganstalt, n.d.), p. 92.

[26] See, e.g., Konstanze Wegner, *Theodor Barth und die Freisinnige Vereinigung. Studien zur Geschichte des Linksliberalismus im wilhelminischen Deutschland (1893–1910)* (Tübingen: J. C. B. Mohr [Paul Siebeck], 1968), p. 138.

[27] Ernst Engelberg, "Das Verhältnis zwischen kleinbürglicher Demokratie und Sozialdemokratie in den 80er

Jahren des 19. Jahrhunderts," in Otto Pflange, ed., with Elisabeth Müller-Luckner, *Innenpolitische Probleme des Bismarck-Reiches* (Munich/Vienna: Oldenberg, 1983), p. 26. The East German historian adds: "This conception was accepted not only by the most influential leaders around August Bebel, but also by the mass of members and sympathizers . . ."

[28] Franz Mehring, *Gesammelte Schriften*, vol. 14, p. 553.

[29] Quoted in Peter Gilg, *Die Erneuerung des demokratischen Denkens im wilhelminischen Deutschland. Eine ideengeschichtliche Studie zur Wende vom 19. zum 20. Jahrhundert* (Wiesbaden: Franz Steiner, 1965), pp. 135–36. Gilg adds, reasonably enough: "To this opposition [of Richter's] the theory of revolution of the Social Democratic program, which permitted collaboration solely as a means to winning autocratic rule, naturally contributed, as well as the successful competition of Social Democracy in the struggle for the urban voting masses." Ibid., p. 135.

[30] Richter, *Im alten Reichstag*, vol. 2, pp. 63 and 178. "This occurred," according to Richter, "with the permission of the Minister of the Interior." In Britain, the Chartists had earlier used similar strong-arm methods against meetings of the anti-corn law movement; see Wendy Hinde, *Richard Cobden. A Victorian Outside* (New Haven, Conn.: Yale University Press, 1987), p. 65.

[31] Richter, *Politisches ABC-Buch: Ein Lexikon parlamentarischer Zeit- und Streitfragen*, 9th ed. (Berlin: Fortschritt Verlag, 1898), p. 307.

[32] Richter, *Sozialdemokratische Zukunftsbilder: Frei nach Bebel* ([1891] Berlin: Verlagsanstalt Deutsche Presse, 1907). In 1922, in his *Socialism*, Ludwig von Mises undertook the same task, but on a totally different, strictly scientific level.

[33] Ibid., p. 32.

[34] Ibid., pp. 42–43.

[35] Ibid., p. 48.

[36] Ibid., pp. 50 and 52.

[37] Quoted in Werner Sombart, *Händler und Helden: Patriotische Besinnungen* (Munich/Leipzig: Duncker und Humblot, 1915), p. 77.

[38] Richter, *Politisches ABC-Buch*, p. 306. Bismarck's hatred of Richter and the Left Liberals on account of their economic liberalism was intense, e.g., his reference to "the Progressive Party and clique of Manchester politicians, the representative of the pitiless money-bags, have always been unfair to poor, they have always worked to the limit of their abilities, to prevent the state from helping them. Laissez-faire, the greatest possible self-

government, no restraints, opportunity for the small business to be absorbed by Big Capital, for exploitation of the ignorant and inexperienced by the clever and crafty. The State is supposed to act only as police, especially for the exploiters." Willy Andreas and K. F. Reinking, *Bismarcks Gespräche: Von der Reichsgründung bis zur Entlassung* (Bremen: Carl Schünemann, 1965), p. 339.

[39] Richter, *Politisches ABC-Buch*, p. 322.

[40] Fritz Blaich, *Kartell- und Monopolpolitik im kaiserlichen Deutschland. Das Problem der Marktmacht im deutschen Reichstag zwischen 1870 und 1914* (Düsseldorf: Droste, 1973), pp. 230 and 259.

[41] Richter, *Im alten Reichstag*, vol. 1, p. 112.

[42] Ibid., vol. 2, p. 86.

[43] See, among many others, Dieter Langewiesche, *Liberalismus in Deutschland* (Frankfurt am Main: Suhrkamp, 1988), pp. 195–96, where Left Liberal opposition on this question is ascribed in part to "Manchesterite blindness." Oskar Stillich, *Die politischen Parteien in Deutschland*, vol. 2, *Der Liberalismus* (Leipzig: Klinkhardt, 1911), p. 125, referred to "ice-cold laissez-faire in the area of the workers' question," and even maintained that: "Liberalism was indifferent and without feeling towards the interest of the broad masses." Erich Eyck, *Bismarck*, vol. 3 (Erlenbach-Zurich: Rentsch, 1944), p. 372, demonstrated a rare understanding for the Left Liberal position: "In spite of all that, that opposition was not without an internal justification. For it rests on the idea that the feeling of personal responsibility of the individual citizen for his own destiny is indispensable for the sound development of a people, and that the omnipotence of the state is, in the long run, incompatible with the freedom of the individual." Eyck, too, favored the Bismarckian policy, however, as do all present-day German historians I have consulted. But it should be obvious that even the question of the economic effects of the program is not as simple as is usually supposed, and cannot be resolved by pure assumption: Bismarck's *Sozialpolitik* was based, in the last analysis, on *deductions* (either direct or indirect) from the wages of labor. Cf. W. H. Hutt, *The Strike-Threat System: The Economic Effects of Collective Bargaining* (New Rochelle, N.Y.: Arlington House, 1973), pp. 206–15.

[44] Richter, *Politisches ABC-Buch*, p. 173; emphasis in original.

[45] Cf. Jürgen von Kruedener, "Die Überforderung der Weimarer Republik als Sozialstaat," *Geschichte und Gesellschaft* 11, no. 3 (1985) *Kontroversen über die Wirtschaftspolitik in der*

Weimarer Republik, Heinrich August Winkler, ed., pp. 358–76.

[46] Richter, *Im alten Reichstag*, vol. 1, pp. 54–55.

[47] Ibid., p. 78.

[48] Rohfleisch, *Eugen Richter: Opponent of Bismarck*, pp. 37–40, and Rachfahl, "Eugen Richter und der Linksliberalismus im Neuen Reich," p. 278.

[49] Urs Müller-Plantenberg, *Der Freisinn nach Bismarcks Sturz: Ein Versuch über die Schwierigkeiten des liberalen Bürgertums, im wilhelminischen Deutschlandzu Macht und politischem Einfluss zu gelangen* (unpubl. diss.; Free University of Berlin, 1971), p. 201.

[50] Ibid.

[51] See Richter, *Im alten Reichstag*, vol. 2, pp. 176–83, 200–03, and the articles, "Antisemiten" and "Juden," in *ABC-Buch*, pp. 17–23 and 174–79; also Alfred D. Low, *Jews in the Eyes of the Germans: From the Enlightenment to Imperial Germany* (Philadelphia: Institute for the Study of Human Issues, 1979), pp. 392–94.

[52] Fritz Stern, *Gold and Iron: Bismarck, Bleichröder, and the Building of the German Empire* (New York: Viking/Penguin, 1987), p. 524.

[53] To protect their meetings against anti-Semitic assaults, the liberals had recourse to a sort of private police agency; Richter, *Im alten Reichstag*, vol. 2, p. 203.

[54] Low, *Jews in the Eyes of the Germans*, pp. 389–90.

[55] Richter, *Im alten Reichstag*, vol. 2, pp. 128–29.

[56] Ibid., pp. 81–84; Wolfgang Pack, *Das Parlamentarische Ringen um das Sozialistengesetz Bismarcks 1878–1890* (Düsseldorf: Droste, 1961), pp. 81–82.

[57] Ibid., pp. 153–60.

[58] Richter's lifelong fight for the *Rechtsstaat* and the predominance of parliament is so well known in the literature that Leonard Krieger's assertion, "Radical liberalism in him tended to be wholly absorbed in the dogma of economic freedom," *The German Idea of Freedom* (Boston: Beacon Press, 1957), p. 397, can probably only be explained by political *parti pris*.

[59] Rachfahl, "Eugen Richterund der Linksliberalismus im Neuen Reich," pp. 274–75.

[60] See, e.g., Richter, *Im alten Reichstag*, vol. 1, pp. 103, 127; vol. 2, pp. 58, 68–69.

[61] Müller-Plantenberg, *Der Freisinn nach Bismarcks Sturz*.

[62] Rohfleisch, *Eugen Richter: Opponent of Bismarck*, p. 103.

[63] Richter, *Im alten Reichstag*, vol. 1, p. 68.

[64] Max Weber, *Gesammelte Politische Schriften*, ed. Johannes Winckelmann (Tübingen: J. C. B. Mohr [Paul Siebeck], 1958), p. 333. Weber's allusion to Richter's unpopularity refers to others in the liberal leadership, not to the ordinary liberal voters.

[65] Frédéric Bastiat, "Paix et liberté, ou le budget républicain," *Oeuvres complètes* 5 (Paris: Guillaumin, 1854), pp. 410–11. Even Lorenz, in her highly critical work on Richter, *Eugen Richter: Der entschiedene Liberalismus in wilhelminischer Zeit 1871 bis 1906*, p. 235, suggests that, with all of Richter's haggling over military expenditures, at many points one can sense "the spirit of unconditional opposition, that, beyond the saving of money, wanted to spare the people militarism" as well.

[66] Cf. E. K. Bramsted and K. J. Melhuish, *Western Liberalism. A History in Documents from Locke to Croce* (London/ New York: Longman, 1978), pp. 278–84. Richter always kept his distance from the organized German peace movement, however, although his cousin, Adolf Richter, and a close political collaborator, Max Hirsch, were among its leaders. Roger Chickering, *Imperial Germany and a World Without War. The Peace Movement and German Society, 1892–1914* (Princeton: Princeton University Press, 1975), pp. 252 and 254.

[67] Julius Paul Köhler, *Staat und Gesellschaft in der deutschen Theorie der auswärtigen Wirtschaftspolitik und des internationalen Handels von Schlettwein bis auf Fr. List und Prince-Smith* (Stuttgart: Kohlhammer, 1926), pp. 22–42.

[68] Richter, *Im alten Reichstag*, vol. 1, p. 93.

[69] Richter, *ABC-Buch*, "Die deutsche Flotte," pp. 416–90.

[70] Quoted by Müller-Plantenberg, *Der Freisinn nach Bismarcks Sturz*, p. 284. In the author's opinion, "no bourgeois politician fought against the military, naval, and colonial policy of Wilhelmine Germany as sharply, energetically, and consistently as Eugen Richter." Ibid.

[71] Paul Kennedy, *The Rise of the Anglo-German Antagonism, 1860–1914*, pp. 150–51.

[72] Quoted in Hans Spellmayer, *Deutsche Kolonialpolitik im Reichstag* (Stuttgart: Kohlhammer, 1931), pp. 15–16.

[73] Eckart Kehr, *Schlachtflottenbau und Parteipolitik, 1894–1901* (Berlin: Ebering, 1930), p. 293.

[74] Ibid., pp. 297–98.

[75] A civic humanist, rather than liberal slant is evident also in Richter's advocacy of a "citizen-army," recruited by conscription.

[76] Hans-Ulrich Wehler, *Bismarck und der Imperialismus* (Cologne/Berlin: Kiepenheuer and Witsch, 1969), p. 444.

[77] Spellmayer, *Deutsche Kolonialpolitik im Reichstag*, pp. 81 and 89.

[78] Quoted in Ludwig Elm, "Freisinnige Volkspartei," in *Die bürgerlichen Parteien in Deutschland*, Dieter Fricke, et al., eds., vol. 2 ([East] Berlin: Das europäische Buch, 1970), p. 84.

[79] Rachfahl, "Eugen Richter und der Linksliberalismus im Neuen Reich," pp. 369–70.

[80] Lothar Albertin, "Das Friedensthema bei den Linksliberalen vor 1914: Die Schwäche Ihrer Argumente und Aktivitäten," in Karl Holl und Günther List, eds., *Liberalismus und Imperialistischer Staat. Der Imperialismus als Problem liberaler Parteien in Deutschland, 1890–1914* (Göttingen: Vandenhoeck and Ruprecht, 1975), pp. 92–93.

[81] Wolfgang Mommsen, "Wandlungen der liberalen Idee im Zeitalter des Imperialismus," in ibid., p. 122.

[82] See Peter Theiner, *Sozialer Liberalismus und deutsche Weltpolitik: Friedrich Naumann im Wilhelminischen Deutschland (1860–1919)*, (Baden-Baden: Nomos, 1983), and William O. Shanahan, "Liberalism and Foreign Affairs: Naumann and the Prewar German View," *The Review of Politics* 21, no. 1 (January 1959): 188–223.

[83] Friedrich Naumann, "Der Niedergang des Liberalismus," *Werke*, vol. 4 (Opladen: Westdeutscher Verlag, 1964), p. 218.

[84] Ibid., p. 220.

[85] See, for instance, his remarks regarding Bismarck's protectionist legislation ("the foyer of the Reichstag resembled a market-place."), cited in Raico, "Der deutsche Liberalismus," p. 279.

[86] Friedrich Naumann, "Klassenpolitik des Liberalismus," *Werke*, vol. 4, pp. 257–58.

[87] Of Richter, Urs Müller-Plantenberg, *Der Freisinn nach Bismarcks Sturz*, p. 89, very correctly writes: "In his *ABC-Books* for liberal voters, Richter processed a plethora of statistics, dates, facts, and legislative paragraphs into rational arguments, which, absent a whole that behind it all might have come to light, could never have their full effect."

[88] Friedrich Naumann, "Liberalismus als Prinzip," *Werke*, vol. 4, p. 252.

[89] Friedrich Naumann, "Niedergang des Liberalismus," ibid., p. 224.

[90] Paul M. Kennedy, *The Rise of the Anglo-German Antagonism, 1860–1914*, p. 340. Typical of the historical treatment of the Richter-Naumann dichotomy, Winfried Baumgart, *Deutschland im Zeitalter des Imperialismus, 1890–1914*, p. 160, writes of "the mitigation of the earlier [liberal] dogmatism" in foreign as in domestic policy, that is "to be ascribed to the work of Friedrich Naumann." When all is said and done, however, one may well be of the opinion that even more important than whether a given foreign-policy position was or was not "dogmatic" is whether it promoted peace or war. One may also question whether the concept of "dogmatism" itself has much heuristic, in contrast to polemical, value.

[91] Friedrich Naumann, "Niedergang des Liberalismus," *Werke*, vol. 4, p. 234.

[92] Ibid., p. 232. Theodor Heuss follows his mentor Naumann, when he writes of Richter: "he saw the objective of the power-state only in the distortion of militarism," *Friedrich Naumann: Der Mann, das Werk, die Zeit*, p. 242.

[93] Roger Chickering, *Imperial Germany and a World Without War. The Peace Movement and German Society, 1892–1914*, p. 255.

[94] Erich Marcks, *Männer und Zeiten: Aufsätze und Reden zur neueren Geschichte*, 4th rev. ed. (Leipzig: Quelle und Meyer, 1916), p. 260.

[95] Concerning the perhaps even more fateful English hatred of Germany, see my contribution, "The Politics of Hunger: A Review," *The Review of Austrian Economics* 3 (1988): 253–59.

[96] Werner Sombart, *Händler und Helden: Patriotische Besinnungen* (Munich/Leipzig: Duncker and Humblot, 1915).

[97] Ibid., p. 9.

[98] Ibid., pp. 17–34.

[99] Ibid., p. 48.

[100] Ibid., p. 25.

[101] Ibid., p. 75.

[102] Heuss, *Friedrich Naumann: Der Mann, das Werk, die Zeit*, p. 180.

[103] Konstanze Wegner, *Theodor Barth und die Freisinnige Vereinigung. Studien zur Geschichte des Linksliberalismus im wilhelminischen Deutschland (1893–1910)*, p. 100.

[104] Ibid., pp. 99–101.

[105] William Graham Sumner, "On the Case of a Certain Man Who is Never Thought Of" and "The Case of the Forgotten Man Further Considered" (1884), in idem., *War and Other Essays*,

Albert Galloway Keller, ed. (New Haven, Conn.: Yale University Press, 1911), p. 247–68.

[106] Quoted in Müller-Plantenberg, *Der Freisinn nach Bismarcks Sturz*, p. 146.

[107] Bruno Walter, *Thema und Variationen: Erinnerungen und Gedanken* (Stockholm: Bermann-Fischer, 1947), pp. 16 and 21.

[108] Cf. Franz Mehring's view, admittedly sardonic, "that [Richter] did not create the *Freisinnige Partei* in his own image, but that they chose him as their leader, because they saw in him their most fitting image." *Gesammelte Schriften*, Thomas Höhle, Hans Kock, and Josef Schleifstein, eds., vol. 15, *Politische Publizistik 1905 bis 1918* ([East] Berlin: Dietz, 1966), p. 165.

[109] Erich Eyck, "Eugen Richter," in *Auf Deutschlands Politischem Forum* (Erlenbach-Zurich: Rentsch, 1963), p. 47.

[110] Florin Afthalion, "Introduction," in Frédéric Bastiat, *Oeuvres économiques* (Paris: Presses Universitaires de France, 1983), p. 8.

[111] Müller-Plantenberg, *Der Freisinn nach Bismarcks Sturz*, p. 200.

Ludwig von Mises as Social Rationalist

Joseph T. Salerno

For the most part Ludwig von Mises's writings on society and social evolution have been ignored by the participants in the current revivals of both Austrian economics and classical liberal political philosophy. When his social theory has been addressed, Mises appears to his critics (Barry 1987, p. 59) as "a child of the Enlightenment wrongly deposited in the twentieth century." But this assessment is inaccurate for two reasons. First, Mises severely criticizes the social meliorism of the Enlightenment liberals and demonstrates that their position is inconsistent with one that assigns the central position to human reason in social evolution. Second, in developing his own uniquely rationalist position, Mises has much to say about matters of central importance to modern Austrians, libertarians, and classical liberals who are either critics or adherents of the "spontaneous order" and/or social evolutionist positions staked out by Hayek.

I limit myself here to a systematic exposition of Mises's thinking about society and social evolution. I make no attempt to critically analyze Mises's thought or to explicitly compare it to that of other social thinkers. However, I do employ certain well-known positions of Hayek's work as a foil to facilitate the elaboration of Mises's arguments and to demonstrate their contemporary relevance.

In the following section I present Mises's view that all social interactions and relationships are thought out in advance and that, therefore, society originates and evolves as a product of reason and teleological striving, as a "man-made mode of acting" and a consciously devised "strategy." Section three sets forth Mises's argument that law, normative rules of conduct, and social institutions are at one and the same time the product of a long evolutionary process and the outcome of attempts by individual human beings to rationally and purposively adjust their behavior to the requirements of social cooperation under division of labor.

Section four highlights the importance which Mises attaches to economic calculation using market prices as the logical precondition of the existence of society. Far from being a

"spontaneous" order, society is, for Mises, a "rational" order, because the very possibility of purposive action within the framework of social division of labor depends on the faculty of the human intellect to conceive cardinal numbers and manipulate them in arithmetic operations. Thus, as we shall see in section five, from Mises's viewpoint, *the* social function of the price system is not to facilitate "the use of knowledge in society" but to render possible "the use of calculation in society." And it is speculative future market prices as *appraised* by entrepreneurs and not the realized prices of history which serve this function. Mises argues further that the past prices experienced by entrepreneurs, praxeologically, can never embody the knowledge relevant to their necessarily future-oriented production plans in the real world of changing economic data. Indeed, I argue that this is the long neglected negative implication of Mises's regression theorem of the origin of money.

Section six addresses the question whether and to what extent Mises's position in the socialist calculation debate actually referred to problems of knowledge rather than of calculation. In fact, as we shall see, the answer to this question is quite clear. Particularly in his later discussions of the issue, Mises explicitly assumed, time and again, that the socialist planners had full knowledge, not only of the latest technology, but of what Hayek calls "the particular circumstances of time and place" relating to consumer value scales and resource availabilities. Even under these conditions of "perfect information," Mises emphatically contended that the problem of calculation, "the crucial and only problem of socialism," remains insoluble.

The Misesian approach to social evolution as the outcome of conscious ideological struggle is outlined in the concluding section. Here I present Mises's speculative hypothesis that continuing ignorance of the remoter consequences of catallactic activity by the masses leads to spreading social maladjustment and spontaneous social disintegration.

Reason and the Origin of Society

For Mises reason is man's "characteristic feature" (1966, p. 177). Human reason and human action are inseparably linked, because "Every action is always based on a definite idea about causal relations" (Mises 1966, p. 177). In addition reason and action are congeneric, a twin product of man's efforts to sustain himself and flourish in a universe of scarcity. Thus, beings inhabiting a

"universe of unlimited opportunities . . . would never have developed reasoning and thinking. If ever such a world were to be given to the descendants of the human race, these blessed beings would see their power to think wither away and would cease to be human. For the primary task of reason is to cope consciously with the limitations imposed upon man by nature, is to fight scarcity. Acting and thinking man is a product of a universe of scarcity" (Mises 1966, pp. 235–36).

As the fruit of conscious thought and the instrument of action, Mises characterizes knowledge as having an "activistic basis." "[K]nowledge is a tool of action. Its function is to advise man how to proceed in his endeavors to remove uneasiness" (Mises 1987b, p. 35).

Mises (1966, p. 143) defines society as "concerted action" or "cooperation" among human beings that is "the outcome of conscious and purposeful behavior." As such, society is a consciously-devised "strategy," "a man-made mode of acting" in the war against scarcity (Mises 1966, p. 26).[1] Society is therefore a product of human reason and volition: "Reason has demonstrated that, for man, the most adequate means for improving his condition is social cooperation and division of labor. They are man's foremost tool in his struggle for survival" (Mises 1966, p. 176).

The provenance of social cooperation, in Mises's view, is to be found in two fundamental facts. The first is the "natural phenomenon" that human effort expended under the division of labor is more productive than the same quantum of effort devoted to isolated production (1985, pp. 38–39). The second fact is that, through a deliberate exercise of reason, individuals are able to grasp this first fact and *consciously* use it as a means to improve their welfare (1966, pp. 144–45). As Mises writes: "Human society is an intellectual and spiritual phenomenon. It is the outcome of a *purposeful utilization* [my emphasis] of a universal law determining cosmic becoming, viz., the higher productivity of the division of labor. As with every instance of action, the recognition of the laws of nature are put into the service of man's efforts to improve his conditions" (1966, p. 14).

In identifying the division of labor as "the essence of society" and "the fundamental social phenomenon," Mises establishes social evolution as an ontological process amenable to rational investigation (1969, p. 299; 1966, p. 157). Social evolution thus becomes "the development of the division of labor" and this permits us to ". . . trace the origin of everything

concerned with society in the development of the division of labor" (Mises 1969, pp. 301, 303).

As "the great principle of cosmic becoming and evolution," and "the fundamental principle of all forms of life" (Mises 1985, p. 38; Mises 1969, p. 291),[2] the principle of the division of labor has application in both the social and biological worlds. This insight leads Mises in his earlier writings to compare human society to a biological organism, identifying the division of labor as the *tertium comparationis* of the metaphor (1969, pp. 289–92). [3]

What distinguishes cooperation among individuals within the "social organism," however, from the cellular interactions of animal and vegetable organisms is that, in the former only, reason and will are the originating and sustaining forces of the organic coalescence. Human society is thus spiritual and teleological. Writes Mises: "Society is the product of thought and will. It does not exist outside thought and will. Its being lies within man, not in the outer world. It is projected from within outwards" (1969, p. 291).

Eagerness for improved living standards in conjunction with the recognition of the higher productivity of social cooperation provides the specific motivation that induces an individual to renounce autarkic economic activity and willingly integrate himself into the social division of labor. Accordingly,

> Every step by which an individual substitutes concerted action for isolated action results in an immediate and recognizable improvement in his conditions. The advantages derived from peaceful cooperation and division of labor are universal. They immediately benefit every generation. . . . When social cooperation is intensified by enlarging the field in which there is division of labor . . . the incentive is the desire of all those concerned to improve their own conditions. In striving after his own—rightly understood—interests the individual works toward an intensification of social cooperation and peaceful intercourse. Society is a product of human action, i.e., the human urge to remove uneasiness as far as possible [Mises 1966, p. 146].

The Torrens-Ricardo law of comparative cost, which identifies the causes of trade and specialization among nations,

thus becomes for Mises a formal inference from the more general "law of association," which explains the universality and permanence of social cooperation on the individual level. In elucidating the incentives that induce individual human beings of varying productive capacities and without explicit agreement to willingly undertake those actions that engender the social division of labor and tend toward its progressive intensification, the law of association provides the key to understanding social evolution.

According to Mises:

> The law of association makes us comprehend the tendencies which resulted in the progressive intensification of human cooperation. . . . The task with which science is faced in respect of the origins of society can only consist in the demonstration of those factors which can and must result in association and its progressive intensification. . . . If and as far as labor under the division of labor is more productive than isolated labor, and if and as far as man is able to realize this fact, human action itself tends toward cooperation and association; man becomes a social being not in sacrificing his own concerns for the sake of a mythical Moloch, society, but in aiming at an improvement in his own welfare. Experience teaches that this condition—higher productivity achieved under the division of labor—is present because its cause—the inborn inequality of men and the inequality in the geographical distribution of the natural factors of production—is real. Thus we are in a position to comprehend the course of social evolution [1966, pp. 160–61].

The operation of the law of association gives rise to two related tendencies which are detectable in the historical development of society. The first is the progressive extension of the division of labor to encompass greater numbers of individuals and groups. The second is the progressive intensification of the division of labor, as the attainment of an ever increasing variety of individual goals is sought within the social nexus. These evolutionary tendencies are described by Mises in the following terms:

> Society develops subjectively and objectively; subjectively by enlarging its membership, objectively by enlarging the aims of its activities. Originally confined to the narrowest circles of people, to immediate neighbours, the division of labour gradually becomes more general until it eventually includes all mankind. This process, still far from complete and never at any point in history completed, is finite. When all men on earth form a unitary system of division of labor, it will have reached its goal. Side by side with this extension of the social bond goes a process of intensification. Social action embraces more and more aims; the area in which the individual provides for his own consumption becomes constantly narrower [1969, p. 324].

The latter tendency for division of labor to intensify effects "the highest possible concentration of the production of each specialty" consistent with geographical factors, such as the distribution of natural resources and climatic conditions. In the absence of such geographical impediments, social evolution "would finally result in the emergence of one factory supplying the whole oecumene with some particular article" (Mises 1985, p. 23).

As the final and full fruition of social evolution driven by the cosmic ontological principle of division of labor, the "oecumene" embraces all of humanity cooperating in hyperspecialized production processes. At any point in history, the evolving oecumene is the "rational and intended" outcome of an intersubjective process, whose purpose is the amelioration of scarcity. It exists not as a thing unto itself but as a complex of social relations which emerges from a common orientation of individual human actions, i.e., to use the social division of labor as the means to attain individual goals. Because such relations thus emanate from the will, they must be daily affirmed and recreated in human thought and conduct.

The Rationalistic Basis of Rules of Conduct and Social Institutions

If society and social evolution are emanations of the human will, a "will-phenomenon" as Mises says, so are the ancillary social

institutions, customs, and rules of conduct which facilitate the establishment and smooth functioning of the system of social relationships. Law, the moral code, marriage and the nuclear family, private property, specialized occupations and professions, linguistic developments, and the market economy itself are the outcome of conscious endeavors by human beings to adjust more effectively to the requirements of the fundamental social relation and thereby make more productive use of the principle of the division of labor in achieving their goals. While these institutions were not created out of whole cloth by a single mind, political fiat or "social contract," they are indeed the products of rational and intentional planning by human beings, whose thoughts and actions continually reaffirm and reshape them in the course of history (1969, p. 306).

Thus Mises argues that "Compliance with the moral rules which the establishment, preservation, and intensification of social cooperation require is not seen as a sacrifice to a mythical entity, but as the recourse to the most efficient methods of action, as a price expended for the attainment of more highly valued returns" (1966, p. 883). In order to reap the benefits of social cooperation, each individual must refrain from seeking ephemeral advantages through actions "detrimental to the smooth functioning of the social system" and, therefore, to his own rightly understood interests (Mises 1966, p. 148).

Law evolves as part of the system of "the rules of conduct indispensable for the preservation of society" (Mises 1966, p. 149). The development of these rules of conduct, like that of society itself, is an evolutionary *and* rational process. Mises emphatically rejects the naive rationalist explanation of society and of the legal order, which construes their origination and development as "a conscious process . . . in which man is completely aware of his motives, of his aims and how to pursue them" (1969, p. 43). Nonetheless, Mises affirms that evolution of law is crucially dependent on the fact that the "position of social ends in the system of individual ends is perceived by the individual's reason, which enables him to recognize aright his own interests" (1969, p. 398). Where the naive rationalist asserts that law sprang into existence full-grown from a set of explicit presocietal contracts, Mises as social rationalist characterizes law as a "settlement, an end to strife" which emerges naturally from the process of social evolution and spreading awareness of the higher productivity of peaceful integration into the social division of labor (1969, p. 44). This explains, furthermore, why

"The idea of Law is realized at first in the sphere in which the maintenance of peace is most urgently needed to assure economic continuity . . . that is in the relations between individuals [i.e., the realm of private law]" (Mises 1969, p. 46).

As an instrument designed to increase mutual prosperity by facilitating social cooperation, the law has a teleological and rationalistic basis: "Like all other social institutions, the Law exists for social purposes" (Mises 1969, p. 77). As such, "Law and legality, the moral code and social institutions . . . are of human origin, and the only yardstick that must be applied to them is that of expediency with regard to human welfare" (Mises 1966, p. 147).

However, the repression of the antisocial conduct of the intellectually defective, the weak-willed, or individuals who heavily discount the future consequences of their actions is not accomplished solely or even mainly by the coercive powers of the legal authorities. Broadly accepted morals and customs evolved as a first line of defense against behavior potentially destructive of social relationships. As Mises points out:

> Not every social norm requires that the most extreme coercive measures shall at once be put into force. In many things, morals and custom can wring from the individual a recognition of social aims without assistance from the sword of justice. Morals and custom go further than State law in so far as there may be a difference in extent between them, but no incompatibility of principle [1969, p. 399].

This is the meaning behind Mises's dictum that "Morality consists in the regard for the necessary requirements of social existence that must be demanded of each individual member of society. A man living in isolation has no moral rules to follow" (Mises 1987b, p. 33).

Like law and normative rules of conduct, private property is, at the same time, an "outgrowth of an age old evolution" and "a human device" (Mises 1966, pp. 654, 683). It originated as a rational response to scarcity, when, encountering lowered productivity due to increased population density, people deliberately decided to abandon "predatory methods" of hunting and gathering and to permanently appropriate to themselves the most productive land factors (Mises 1966, pp. 656–57). Moreover, the historical development of private property was powerfully conditioned by ideology, which, as we shall see

below, is the product of conscious human thought.

Monogamous marriage and the nuclear family are also social institutions that evolved as products of rational insight into the requirements of the division of labor. “As a social institution marriage is an adjustment of the individual to the social order by which a certain field of activity, with all its tasks and requirements, is assigned to him” (Mises 1969, p. 99). In this sense, it is the application of the principle of the division of labor to those extra-catallactic tasks that are immediately prerequisite to the enjoyment of consumption goods, whether acquired on the market or produced within the household, e.g., the bearing and raising of children. It is a chosen form of social cooperation in the face of the pervasiveness of scarcity in human life.

Marriage and family life are therefore not products of innate sexual drives or natural instincts. These institutions originated and continue to exist as an integral part of social life because ratiocination of individual human beings daily affirms their benefits. In Mises’s words, “neither cohabitation, nor what precedes it and follows, generates social cooperation and societal modes of life. The animals too join together in mating, but they have not developed social relations. Family life is not merely a product of sexual intercourse. It is by no means natural and necessary that parents and children live together in the way in which they do in the family. The mating relation need not result in a family organization. The human family is an outcome of thinking and acting” (Mises 1969, p. 168).

Nor is the modern ideal of monogamous marriage a creation of ecclesiastical directives. Modern marriage is a product of the evolution of contract law and its deliberate extension into matters of family life. Monogamy historically wins out over polygamy as conflict over control and disposition of the property that a woman brings to a marriage, including the identification of her proper heirs, is resolved through recourse to the idea of contract. This process is described by Mises in the following passage:

> Thus monogamy has been gradually enforced by the wife who brings her husband wealth and by her relatives—a direct manifestation of the way in which capitalist thought and calculation has penetrated the family. In order to protect legally the property of wives and their children a sharp line is drawn between legitimate and illegitimate

connection and succession. The relation of husband and wife is acknowledged as a contract.

As the idea of contract enters the Law of Marriage, it breaks the rule of the male, and makes the wife a partner with equal rights. From a one-sided relationship resting on force, marriage thus becomes a mutual agreement; the servant becomes the married wife entitled to demand from the man all that he is entitled to ask from her. . . .

This evolution of marriage has taken place by way of the law relating to the property of married persons. Woman's position in marriage was improved as the principle of violence was thrust back, and as the idea of contract advanced in other fields of the Law of Property it necessarily transformed the property relations between the married couple. The wife was freed from the power of her husband for the first time when she gained legal rights over the wealth that she brought into marriage and which she acquired during marriage. . . .

Thus marriage, as we know it, has come into existence entirely as a result of the contractual idea penetrating into this sphere of life. All our cherished ideals of marriage have grown out of this idea. That marriage unites one man and one woman, that it can be entered into only with the free will of both parties, that it imposes a duty of mutual fidelity, that a man's violations of the marriage vows are to be judged no differently from a woman's, that the rights of husband and wife are necessarily the same —these principles develop from the contractual attitude to the problem of marital life [1969, pp. 95–96].

In sum, family life in its modern form, as well as the morals and rules of conduct that sustain and make it possible, are the outcome of a historical process directed by reason and fueled by the eagerness of individual human beings to establish living arrangements compatible with the fullest possible satisfaction of their desires under the evolving division of labor. Thus, as Mises concludes, modern marriage "is the result of capitalist, and not ecclesiastical, development" (1969, p. 97).

Like the morals underlying marriage, all spiritual or intellectual phenomena, including religion and culture, are powerfully conditioned by the development of the social division of labor. As Mises points out, "all inner culture requires external means for its realization, and these external means can be attained only by economic effort. When the productivity of labor decays through the retrogression of social co-operation the decay of inner culture follows" (1969, p. 310). Mises illustrates this historically by noting the decline of the Roman Empire, which "was only a result of the disintegration of ancient society which after reaching a high level of division of labor sank back into an almost moneyless economy" (1969, p. 309). The "disintegration" of the social division of labor delivered a devastating setback not only to human population, productivity, and prosperity, but also to scientific, technical, and artistic pursuits. In short, "The Classical culture died because Classical society retrogressed" (Mises 1969, p. 309).

Linguistic evolution is also intimately connected with changes occurring in the division of labor. Language is "a tool of thinking and acting" and, as such, "changes continually in conformity with changes occurring in the minds of those who use it" (Mises 1985, p. 232). When communication between members of a linguistically homogeneous group is impaired or altogether cut off, the consequence is a divergent evolution of the language among the isolated groups from that point onward. Thus Mises explains the emergence of local dialects as a "disintegration of linguistic unity" that results "When communication between the various parts of a nation's territory was infrequent on account of the paucity of the interlocal division of labor and the primitiveness of transportation facilities . . ." (1985, p. 233).

Along with genetic endowment and natural environment, Mises identifies the social division of labor as an important factor operating to constrain the possibilities of the individual's "being and becoming" at any point in history (1969, pp. 314–15). The individual is born into a social environment characterized by pre-existing rules of conduct, linguistic conventions, legal and moral codes, customs, and social institutions whose *raison d'être* is to render possible human cooperation under the division of labor. In choosing to integrate himself into society, the individual must consciously adapt himself to the division of labor both physically and spiritually: physically, by forgoing the exercise and development of his abilities and skills in a whole range of tasks

designed to serve directly his own wants and by pursuing a highly specialized profession or occupation oriented to satisfying the wants of other human beings; and spiritually, by adopting behavior in accordance with social norms and institutions.

Thus, according to Mises (1969, p. 304), "The most important effect of the division of labor is that it turns the independent individual into a dependent social being. Under the division of labor, social man changes. . . . He adapts himself to new ways of life, permits some energies and organs to atrophy and develops others. He becomes one-sided."

Moreover, as Mises points out, the very concept of an isolated human being is a fiction, a useful mental construct for the elaboration of economic theory but impossible of realization in history (Mises 1966, pp. 243–44; Mises 1969, pp. 291–92). Homo sapiens is necessarily a creature of social cooperation under division of labor, because language, the prerequisite of conscious thought, cannot be developed by an isolated being. As Mises expresses it:

> The biological passing of a species of primates above the level of a mere animal existence and their transformation into primitive men implied the development of the first rudiments of social cooperation. Homo sapiens appeared on the stage of earthly events neither as a solitary food-seeker nor as a member of a gregarious flock, but as a being consciously cooperating with other beings of his own kind. Only in cooperation with his fellows could he develop language, the indispensable tool of thinking. We cannot even imagine a reasonable being living in perfect isolation and not cooperating at least with members of his family, clan, or tribe. Man as man is necessarily a social animal. Some sort of cooperation is an essential characteristic of his nature [1985, p. 252].

These considerations lead Mises to conclude that "The development of human reason and human society are one and the same process" (1969, p. 291). Elsewhere Mises affirms "the inner and necessary connection between evolution of the mind and evolution of society" (1969, p. 300). But if social cooperation is a necessary precondition of the origination of the human mind, the existence and evolution of the social division of labor beyond the rudimentary level depends on the ability of the

human intellect to operate with cardinal numbers in order to calculate the outcome of social production processes. This is another sense in which, for Mises, society can be considered a rational phenomenon.

Economic Calculation, Market, and Society

Mises characterizes the market as "the foremost social body" (1966, p. 315). As such the market economy is "the product of a long evolutionary process" (Mises 1966, p. 265). This does not imply, however, that market relations are a nonteleological or undesigned outcome of tropistic and nonrational cultural selection processes. To the contrary, Mises argues that the market economy is the product of conscious reason and teleological striving, it is "the outcome of man's endeavors to adjust his action in the best possible way to the given conditions of his environment that he cannot alter" (1966, p. 265). In this spirit, Mises refers to the market economy both as "a man-made mode of acting under the division of labor" and as a "strategy" for achieving social and economic progress (1966, p. 265).

Moreover, the market originates and evolves through individual exchanges, which involve "intentional mutuality" and "conscious and purposeful cooperation" (Mises 1966, p. 194). As Mises writes, "The recurrence of individual acts of exchange generates the market step by step with the evolution of the division of labor within a society based on private property" (1966, p. 327). It follows then that "The exchange relation is the fundamental social relation. Interpersonal exchange of goods and services weaves the bond which unites men into society. The societal formula is: *do ut des*" (Mises 1966, p. 194).

By virtue of the fact that it subsists in the network of exchanges continually recurring among purposeful human actors, the market and its configuration at any moment in time is to be explained by the human values and choices which give rise to these exchanges. In this sense, certainly, market society is a purposeful creation, an intended consequence of consciously chosen behavior. According to Mises:

> The market is a process, actuated by the interplay of the actions of the various individuals cooperating under the division of labor. The forces determining the—continually changing—state of the market are the value judgments of these individuals and their

> actions as directed by these value judgments. . . . The market is entirely a resultant of human actions. Every market phenomenon can be traced back to definite choices of the members of the market society. . . .
>
> . . . [T]he only factors directing the market and the determination of prices are the purposive acts of men. There is no automatism; there are only men consciously and deliberately aiming at ends chosen. There are no mysterious mechanical forces; there is only the human will to remove uneasiness [1966, pp. 257–58, 315].

But while market phenomena are to be explained completely in terms of conscious human choices, the successive price structures which emerge in the course of the market process are genuinely "social" phenomena. They are social in the sense that, although every individual transactor contributes to their formation, they represent more than any particular individual's contribution. The result is that each individual when planning his market activities takes prices into account as if they were uninfluenced by his own actions. As Mises writes:

> The market phenomena are social phenomena. They are the resultant of each individual's active contribution. But they are different from each such contribution. They appear to the individual as something given which he himself cannot alter. . . .
>
> . . . [Prices] are social phenomena as they are brought about by the interplay of the valuations of all individuals participating in the operation of the market. Each individual, in buying or not buying and in selling or not selling, contributes his share to the formation of the market prices. But the larger the market is, the smaller is the weight of each individual's contribution. Thus the structure of market prices appears to the individual as a datum to which he must adjust his own conduct [1966, pp. 315, 331].

Mises emphasizes that it is not any particular price but the momentarily prevailing complex of interrelationships among prices that constitutes the social aspect of the market:

> It would be absurd to look upon a definite price as if it were an isolated object in itself. A price is expressive of the position which acting men attach to a thing under the present state of their efforts to remove uneasiness. It does not indicate a relationship to something unchanging, but merely the instantaneous position in a kaleidoscopically changing assemblage. In this collection of things considered valuable by the value judgments of acting men each particle's place is interrelated with those of all other particles. What is called a price is always a relationship within an integrated system which is the composite effect of human relations [1966, p. 392].

In determining the price structure, the market also determines, as part of the same social process, the allocation of labor and other resources among various lines of production and the "distribution" of income among the various individuals contributing to production. Writes Mises:

> The pricing process is a social process. It is consummated by an interaction of all members of society. All collaborate and cooperate, each in the particular role he has chosen for himself in the framework of the division of labor. Competing in cooperation and cooperating in competition all people are instrumental in bringing about the result, viz., the price structure of the market, the allocation of the factors of production to the various lines of want-satisfaction, and the determination of the share of each individual. These three events are not different matters. They are only different aspects of one indivisible phenomenon. . . . In the market process they are accomplished *uno acto* [1966, p. 338].

It is thus that the market process gives rise to "not only the price structure but no less the social structure, the assignment of definite tasks to the various individuals" (Mises 1966, p. 311). It is the market and the market alone which permits the development and persistence of a meaningful and purposeful social order. Under the guidance of the market, each individual chooses purposefully to integrate himself with greatest advantage

to himself and to his fellows into the social division of labor. In this way, the social system "is steered by the market. . . . The market alone puts the whole social system in order and provides it with sense and meaning" (Mises 1966, p. 257).

In Misesian social theory, therefore, the hallmark and *sine qua non* of market society and of social being itself is not its "spontaneity" (whatever that may mean) but its purposefulness. When the social steering mechanism of the market is destroyed, as it is under socialist central planning, systematic and meaningful social cooperation becomes impossible and is replaced by "a system of groping about in the dark. What is called conscious planning is precisely the elimination of *conscious purposive action* [emphasis is mine]" (Mises 1966, pp. 700–01).

While human cooperation in the division of labor is made possible by the social resultant of market exchange relationships, i.e., the price structure, the market itself is predicated upon an intellectual operation consciously originated and performed by the individual human mind. This operation is what Mises calls "economic calculation in monetary terms" or simply "monetary calculation." According to Mises monetary calculation is "the intellectual basis of the market economy" and "the guiding star of action under the social system of division of labor" (1966, pp. 229, 259). It is a "method of thinking" purposefully created by "acting man," which "made it possible to calculate his actions" (Mises 1966, p. 231).

Calculation is absolutely necessary for an actor to determine the most advantageous allocation of scarce resources in a world in which resources are neither purely nonspecific nor absolutely specific to a wide variety of possible production processes (Mises 1966, pp. 207–08). Under these conditions, therefore, monetary calculation:

> is the compass of the man embarking upon production. He calculates in order to distinguish the remunerative lines of production from the unprofitable ones. . . . Every single step of entrepreneurial activities is subject to scrutiny by monetary calculation. The premeditation of planned action becomes commercial precalculation of expected costs and expected proceeds. The retrospective establishment of the outcome of past action becomes accounting of profit and loss [Mises 1966, p. 229].

Capital, "the fundamental concept of economic calculation," and the correlative concept of income enable the actor to mentally grasp the distinction between means and ends "with regard to the perpetually changing conditions of highly developed processing industries and the complicated structure of the social cooperation of hundreds of thousands of specialized jobs and performances" (Mises 1966, pp. 260–61). Capital accounting is thus the indispensable precondition of the expression of individual rationality and purpose within the context of the social division of labor, because, without recourse to this intellectual operation, men and women would be unable to evaluate the outcomes, whether consummated or expected, of their actions. According to Mises: "Monetary calculation reaches its full perfection in capital accounting. It establishes the money prices of the available means and confronts this total with the changes brought about by action and by the operation of other factors. This confrontation shows what changes occurred in the state of the acting man's affairs and the magnitude of those changes; it makes success and failure, profit and loss ascertainable" (1966, p. 230).

Without the possibility of economic calculation, even a human actor in perfect isolation would find his range of purposeful activities or "autistic exchanges" restricted to less than the full range of production possibilities determined by the purely external elements of his environment (including his labor capacities). In characterizing the economies of the isolated individual and of the isolated socialist society as unrealizable "imaginary constructions," Mises declares: "Robinson Crusoe, who . . . may have existed, and the general manager of a perfectly isolated socialist commonwealth that never existed would not have been in a position to plan and to act as people can only when taking recourse to economic calculation" (1966, p. 243).

Market and therefore society are impossible without calculable action. Mises is emphatic on this point: "The tasks set to acting within any system of the division of labor cannot be achieved without economic calculation. . . . That [the market] is capable of such calculation was instrumental in its evolution and conditions its present-day operation. *The market economy is real because it can calculate* [emphasis mine]." Thus logic dictates that a treatment of the problem of economic calculation precede the systematic elaboration of a theory of the market economy. Catallactics, in turn, must precede the analysis of alternative

economic systems, such as socialism, that provide no scope for calculable action. These latter systems of economic organization cannot even be conceptualized without recourse to the calculational modes of thought developed within the market economy. To quote Mises:

> The analysis of the problems of the market society, the only pattern of human action in which calculation can be applied in planning action, opens access to the analysis of all thinkable modes of action and of all economic problems with which historians and ethnographers are confronted. All noncapitalistic methods of economic management can be studied only under the hypothetical assumption that in them too cardinal numbers can be used in recording past action and planning future action. This is why economists place the study of the pure market economy in the center of their investigation [1966, pp. 266–67].

But, as Mises points out, economic calculation involves arithmetic computation and "computation requires a common denominator to which all items entered are to be referable" (1966, p. 214). It is for this reason that economic calculation can only be calculation in terms of money prices and that the development of economic calculation as well as of the application of cardinal numbers in all areas of human life is logically and historically inseparable from the evolution of money and the market economy. As Mises writes:

> Thus money becomes the vehicle of economic calculation. . . . only because money is the common medium of exchange, because most goods and services can be sold and bought on the market against money, and only as far as this is the case, can men use money prices in reckoning. The exchange ratios between money and the various goods and services as established on the market of the past and as expected to be established on the market of the future are the mental tools of economic planning. Where there are no money prices there are no such things as economic quantities. . . . There is no means for man to find out what kind of action would best serve his

> endeavors to remove his uneasiness as far as possible . . . [1966, pp. 208–09]
>
> . . . [Monetary calculation] developed in the frame and was gradually perfected with the improvement of the market mechanism and with the expansion of the scope of things which are negotiated on markets against money. It was economic calculation that assigned to measurement, number, and reckoning the role they play in our quantitative and computing civilization. The measurements of physics and chemistry make sense for practical action only because there is economic calculation. It is monetary calculation that made arithmetic a tool for a better life. It provides the mode of using achievements of laboratory experiments for the most efficacious removal of uneasiness. . . . Our civilization is inseparably linked with our methods of economic calculation. It would perish if we were to abandon this most precious intellectual tool of acting [1966, p. 230].

Use of Calculation versus Use of Knowledge: The Social Function of Prices

In Mises's view, then, human society is a profoundly rational phenomenon, a product of the capacity of the human intellect to conceive cardinal numbers and manipulate them in arithmetic operations. To assert therefore that the primary function of the market's price system is to effectuate "the use of knowledge in society" is to seriously misconceive the nature of the social problem. *The* problem of society is first and foremost one of calculating the outcome of purposive action undertaken within the framework of the division of labor. As the only possible tool of calculable action, money prices do not merely permit people to utilize their individual "knowledge of particular circumstances of time and place" to enhance the efficiency with which goods are produced in society, prices render possible the very existence of social production processes. For Mises, therefore, the market provides for far more than a "division of knowledge," it produces "the intellectual division of labor that consists in the cooperation of all entrepreneurs, landowners, and workers as producers and consumers in the formation of market prices. [W]ithout it, rationality, i.e., the possibility of economic calculation, is

unthinkable" (1985b, p. 75).

In fact Mises presents a penetrating critique of the Walrasian view that, in the plans of producers, prices substitute for knowledge of the economic data or, rather, for entrepreneurial understanding and appraisement of future variations of these data. Mises's critique is grounded on the incontrovertible fact that "The prices of the market are historical facts expressive of a state of affairs that prevailed at a definite instant of irreversible historical time" (Mises 1966, p. 223). As such, realized prices can never serve as an unambiguous guide to production, which is always aimed at supplying a market of the more or less remote future involving a different configuration of the economic data. Indeed, if producers were certain that the data underlying future markets would never differ from those determining the present or immediately past state of the market, they could completely dispense with prices and calculation and simply perform the same productive activities over and over again. For, as Mises reminds us, "the main task of economic calculation is not to deal with the problems of unchanging or only slightly changing market situations and prices, but to deal with change" (1966, p. 212). Ironically, a world in which prices (of previously consummated exchanges) convey knowledge upon which to base future-oriented production decisions is a world in which the price system is, as Mises might say, "supererogatory and otiose."

In the real world of action and change, on the other hand, "Exchange ratios are subject to perpetual change because conditions which produce them are perpetually changing. The value that an individual attaches both to money and to various goods and services is the outcome of a moment's choice" (Mises 1966, p. 217). The result, according to Mises, is that "The planning businessman cannot help employing data concerning the unknown future; he deals with future prices and future costs of production" (1966, p. 224). Moreover, since past prices are not causally linked to the emergence of future prices, they cannot embody knowledge relevant to the drafting of present production plans. This is an irrefutable conclusion of praxeological analysis, the neglected negative implication of Mises's regression theorem.

Explains Mises:

> In drafting their plans entrepreneurs look first at the prices of the immediate past which are mistakenly called *present* prices. Of course, the entrepreneurs never make these prices enter into their calculations

> without paying regard to anticipated changes. The prices of the immediate past are for them only the starting point of deliberations leading to forecasts of future prices. The prices of the past do not influence the determination of future prices. It is, on the contrary, the anticipation of future prices of the products that determines the state of prices of the complementary factors of production. *The determination of prices has, as far as the mutual exchange ratios between various commodities are concerned, no direct causal relationship whatever with the prices of the past* [emphasis mine; 1966, p. 336].

In a qualifying footnote to this passage, Mises notes that, in the case of the exchange ratio between money and other economic goods, the emphasized statement does not apply. This is a reference to Mises's regression theorem, according to which the money unit's past purchasing power is a causal factor in the determination of its current purchasing power (1966, p. 336 fn. 2).

It is clear therefore that in Mises's view the information yielded by the price system does not obviate entrepreneurial forecasting and interpretative understanding of the constellation of data underlying the markets of the future. What role then does the knowledge of past prices play in today's decisions about the allocation of resources? According to Mises, past prices are useful to entrepreneurs in "appraising" the future prices that will emerge in the wake of forecast data changes. Or, put another way, yesterday's prices do not "economize knowledge" but save on the mental effort expended by the entrepreneur in striving to "understand" the effects of anticipated change on tomorrow's price structure, the elements of which serve as the cardinal numbers in today's economic calculations. Recourse to their experience of past prices eliminates the need for entrepreneurs to mentally reconstruct *ab initio* the price structure and the pattern of resource allocation every time there occurs an anticipated shift in the data requiring the calculation of new production decisions. Entrepreneurial appraisement is enormously simplified when it may proceed by estimating the effects of anticipated variations of the data on a preexisting price structure. As Mises writes:

> Numbers applied by acting man in economic calculation do not refer to quantities measured but to exchange ratios as they are expected—on the

> basis of understanding—to be realized on the markets of the future to which alone all acting is directed and which alone counts for acting man. . . . As acting is always directed toward influencing a future state of affairs, economic calculation always deals with the future. As far as it takes past events into consideration, it does so only for the sake of an arrangement of future action. . . .
>
> The prices of the past are for the entrepreneur, the shaper of future production, merely a mental tool. The entrepreneurs do not construct afresh every day a radically new structure of prices or allocate anew the factors of production to the various branches of industry. They merely transform what the past has transmitted in better adapting it to the altered conditions. How much of the previous conditions they preserve and how much they change depends on the extent to which the data have changed. . . . In order to see his way in the unknown and uncertain future man has within his reach only two aids: experience of past events and his faculty of understanding. Knowledge about past prices is a part of this experience and at the same time the starting point of understanding the future [1966, pp. 210, 337].

As one component of experience, past prices are therefore an important, but by no means indispensable, auxiliary for entrepreneurial understanding of the future course of prices. However, since it is, in the final analysis, *future* prices which concern entrepreneurs, Mises concludes that economic calculation and rational allocation of resources could still take place even in the event of a complete obliteration of the memory of past prices:

> If the memory of all prices of the past were to fade away, the pricing process would become more troublesome, but not impossible as far as the mutual exchange ratios between various commodities are concerned. It would be harder for the entrepreneurs to adjust production to the demand of the public, but it could be done nonetheless. It would be necessary for them to assemble anew all the data they need as the basis of their operations. They

> would not avoid mistakes which they now evade on account of experience at their disposal. Price fluctuations would be more violent at the beginning, factors of production would be wasted, want-satisfaction would be impaired. But finally, having paid dearly, people would again have acquired the experience needed for a smooth working of the market process [1966, p. 337].

Let me summarize Mises's position on the social function of prices and the acquisition and use of knowledge in society. The price system is not—and praxeologically cannot be—a mechanism for economizing and communicating the knowledge relevant to production plans. The realized prices of history are an accessory of appraisement, the mental operation in which the faculty of understanding is used to assess the quantitative structure of price relationships which corresponds to an anticipated constellation of the economic data. Nor are anticipated future prices tools of knowledge; they are instruments of economic calculation. And economic calculation itself is not the means of acquiring knowledge, but the very prerequisite of rational action within the setting of the social division of labor. It provides individuals, whatever their endowment of knowledge, the indispensable tool for attaining a mental grasp and comparison of the means and ends of social action. As Mises says: "It is not the task of economic calculation to expand man's information about future conditions. Its task is to adjust his actions as well as possible to his present opinion concerning want-satisfaction in the future" (1966, p. 214).

The Problem of Socialism: Calculation or Knowledge?

It is therefore clear that Mises's critique of the possibility of socialism is not about knowledge but about calculation. It proceeds ineluctably from his insight that, although cardinal numbers and their arithmetic properties are "eternal and immutable categories of the human mind," economic calculation is "only a category inherent in acting under special conditions" or what the German Historical School referred to as an "historical category" (Mises 1966, pp. 199, 201). Thus "The system of economic calculation in monetary terms is conditioned by certain social institutions. It can operate only in an

institutional setting of the division of labor and private ownership of the means of production, in which goods and services of all orders are bought and sold against a generally used medium of exchange, i.e., money" (Mises 1966, p. 229). Should these preconditions of calculable action disappear in the further course of social evolution, due, for example, to the abolition of private ownership of the nonhuman means of production, rational social action will become impossible and social division of labor will literally disintegrate into its component parts, into primitive household economies.

Simply and starkly put, Mises's position is that "Human cooperation under the system of the social division of labor is possible only in the market economy. Socialism is not a realizable system of society's economic organization because it lacks any method of economic calculation. . . . The choice is between capitalism and chaos" (Mises 1966, pp. 679–80). Elsewhere Mises declares "economic calculation" to be "the essential and unique problem of socialism" (1966, p. 703).

Nor did Mises ignore the so-called "knowledge problem" faced by central planners. In fact, in his later discussion of socialism in *Human Action*, he carefully and repeatedly distinguished between the problem of calculation and that of knowledge, by explicitly assuming that the economic planners possessed full knowledge of the relevant economic data (Mises 1966, pp. 689–715).

For example, Mises prefaces his chapter on the "Impossibility of Economic Calculation under Socialism" with the following list of assumptions: "We assume that the director has at his disposal all the technological knowledge of his age. Moreover, he has a complete inventory of all the material factors of production available and a roster enumerating all manpower employable. In these respects the crowd of experts and specialists which he assembles in his offices provide him with perfect information and answer correctly all questions he may ask them. We assume that the director has made up his mind with regard to the valuation of ultimate ends. . . . We may assume, for the sake of argument, that a mysterious power makes everyone agree with one another and with the director in the valuation of ultimate ends" (1966, p. 696).

The planner thus possesses "perfect information" about the general rules of technology and about the particular circumstances of time and place relating to each consumer's value scale and to the availability of each of the variety of

factors. Now consider, as Mises does, the planner's decision to build a house under these conditions. Mises argues that the planner still faces the insoluble problem of which of the various known technical methods for realizing his project he should select. Each of the methods employ the given factors in different quantities, each absorbs a different period of production, and each yields a building with a different physical durability.

Mises elaborates the problem confronting the planner in this situation in the following terms:

> Which method should the director choose? He cannot reduce to a common denominator the items of various materials and various kinds of labor to be expended. Therefore he cannot compare them. He cannot attach either to the waiting time (period of production) or to the duration of serviceableness a definite numerical expression. In short, he cannot, in comparing costs to be expended and gains to be earned, resort to any arithmetical operation. The plans of his architects enumerate a vast multiplicity of items in kind; they refer to the physical and chemical qualities of various materials and to the physical productivity of various machines, tools, and procedures. But all their statements remain unrelated to each other. There is no means of establishing any connection between them. . . . Eliminate economic calculation and you have no means of making a rational choice between the various alternatives [1966, pp. 698–99].

For Mises, therefore, "the crucial and only problem of socialism . . . is a purely economic problem, and as such refers merely to means and not to ultimate ends" (1966, p. 697). In other words, it is the problem purely of Robbinsian maximizing, of deciding how *given* means are to be allocated in light of a *given* structure of ends.

In responding to the socialist criticism that capitalist calculation is fallible because it takes place under conditions of uncertainty, Mises leaves no doubt that inability to calculate and lack of knowledge are logically distinct problems and that the former is the rock upon which the socialist ship founders. Writes Mises:

> all human action points to the future and the future

> is always uncertain. The most carefully elaborated plans are frustrated if expectations concerning the future are dashed to the ground. However, this is a quite different problem. Today we calculate from the point of view of our present knowledge and of our present anticipation of future conditions. We do not deal with the problem of whether or not the director will be able to anticipate future conditions. What we have in mind is that the director cannot calculate from the point of view of his own present value judgments and his own present anticipation of future conditions, whatever they may be. If he invests today in the canning industry, it may happen that a change in consumers' tastes or in hygienic opinions concerning the wholesomeness of canned food will one day turn his investment into a malinvestment. But how can he find out *today* how to build and equip a cannery most economically [1966, pp. 699–700]?

It is because socialism lacks the means to calculate, therefore, that Mises emphatically denies that men "are free to adopt socialism without abandoning economy in the choice of means" or that "Socialism does not enjoin the renunciation of rationality in the employment of the factors of production" (1966, p. 702).

Mises approaches the knowledge versus calculation issue from still another angle. He assumes that human history has, in effect, come to an end and that all further changes in the economic data have ceased. He assumes in addition that the socialist central planner is miraculously endowed with perfect knowledge relating to the full data of this final equilibrium state. Even in this situation the planner confronts a problem requiring economic calculation. The planner must decide how to utilize most economically the means of production bequeathed by the past, e.g., the existing capital structure and acquired skills and location of the labor force, which are not yet adjusted to their equilibrium configurations. For, as Mises points out,

> as long as the equilibrium is not yet attained, the system is in a continuous movement which changes the data. The tendency toward the establishment of equilibrium, not interrupted by the emergence of any changes in the data coming from without, is in

> itself a succession of changes in the data. . . . The knowledge of conditions which will prevail under equilibrium is useless for the director whose task it is to act today under present conditions. What he must learn is how to proceed in the most economical way with the means available today which are the inheritance of an age with different valuations, a different technological knowledge, and different information about problems of location. He must know which step is the next he must take. . . . [Thus] even if . . . we assume that a miraculous inspiration has enabled the director without economic calculation to solve all problems concerning the most advantageous arrangement of all production activities and that the precise image of the final goal he must aim at is present to his mind, there remain essential problems which cannot be dealt with without economic calculation [1966, pp. 712–13].

There is a significant implication of our interpretation of Mises's critique of socialism. Although the market economy has perfectly solved the problem of economic calculation—its very existence attests to the veracity of this conclusion—praxeologically, at least, it is on all fours with socialism with regard to the knowledge problem. For the imperfection of knowledge deriving from uncertainty of the future is a category of all human action, which cannot be overcome by recourse to the market price system, entrepreneurial alertness, the competitive discovery process, and so on. In any event, comparisons between centrally planned and market economies on the basis of their alternative mechanisms for discovering and disseminating knowledge have little more than heuristic value, precisely because, even assuming conditions of perfect knowledge, calculable, and therefore purposeful, action is logically impossible under central planning. On the other hand, a market economy in which relatively obtuse and mentally inert entrepreneurs appraise and plan on the basis of spotty and inaccurate knowledge of future conditions could still exist and operate because it would permit the calculations necessary for the Robbinsian economizing of scarce productive factors.

On this basis, we are led to reject the revisionist "discovery-process view" of the socialist calculation debate at least as it

applies to Mises's contribution (Hayek's is another matter). This view has been recently enunciated by Israel Kirzner (1988) and Don Lavoie (1985) and basically concludes that the Austrian position in the debate "represented a critique of socialism only because and to the extent that markets under capitalism indeed constitute such a dynamic process of entrepreneurial discovery" (Kirzner 1988, p. 3). But this ignores Mises's key insight that the theory of monetary calculation and calculable action does not belong to the theory of catallactics. As a logical inference from categorial uncertainty, "It is part of the general theory of praxeology" (Mises 1966, p. 398, fn.1) and, as such, is a logical antecedent of catallactic theorems relating to the dynamic role of the entrepreneur-promoter in the functioning of the market process.

The Kirzner-Lavoie approach also errs in distinguishing the advantages of economic calculation from "the broader issue of the social advantages of the price system" (Kirzner 1988, p. 12). As we have documented in great detail above, however, Mises never made this distinction, even in his most mature view of the market process as presented in *Human Action*. In fact Mises conceived *the* social advantage of the price system to be that it made practicable human society itself by providing the cardinal numbers for computing the costs and benefits of purposive action undertaken within the social division of labor. Finally, Mises, in sharp contrast to the discovery-process approach, denied that prices are directly relevant to the entrepreneurial discovery of information about future market conditions. On the one hand, according to the regression theorem, relative prices of the past are logically unrelated to relative prices which will emerge on future markets. On the other hand, future prices themselves must be appraised in light of the logically prior process of entrepreneurial discovery or, more accurately, "understanding" of yet to emerge market conditions.

Social Evolution as Ideological Struggle

Mises's recognition of the ability of human reason to grasp the benefits of social cooperation and to identify and implement its intellectual and institutional preconditions leads him to affirm that "human action itself tends toward cooperation and association" (Mises 1966, p. 160). The progressive extension and intensification of the division of labor and the concomitant flowering of society is only a tendency in social evolution,

however, subject to reinforcement, retardation, or even reversal by ideology. As Mises notes, "There is no evidence that social evolution must move steadily upwards in a straight line. Social standstill and social retrogression are historical facts which we cannot ignore. World history is the graveyard of dead civilizations" (1969, pp. 309–10).

Ideology, as defined by Mises, is the "totality of our doctrines concerning individual conduct and social relations" (1966, p. 178). Since all social interactions and relationships involve conscious human behavior necessarily guided by specific ideas, human society itself, at any point in its history, is an ideological, which is to say rational, creation. Mises is emphatic on this point, declaring:

> Society is a product of human action. Human action is directed by ideologies. Thus society and any concrete order of social affairs are an outcome of ideologies. . . .
>
> Any existing state of social affairs is the product of ideologies previously thought out. Within society new ideologies may emerge and supersede older ideologies and thus transform the social system. However, society is always the creation of ideologies temporally and logically anterior. Action is always directed by ideas; it realizes what previous thinking has designed [1966, pp. 187–88].

For Mises, then, the complex of human social relations is, in a fundamental sense, the product of rational design. Society is hardly a "spontaneous" or "undesigned" formation, because it is inevitable that each individual excogitate and compare before hand the prospective benefits and costs of his participation in exchange relations and the social division of labor. Nevertheless, as is clear from his discussion of the market's price structure, Mises does not deny that there may be some unintended, and, at the same time, quite momentous consequences associated with deliberate yet decentralized choices to cooperate catallactically:

> Any given social order was thought out and designed before it could be realized. This temporal and logical precedence of the ideological factor does not imply the proposition that people draft a complete plan of the social system as the Utopians

> do. What is and must be thought out in advance is not the concerting of individual actions into an integrated system of social organization, but the actions of individuals with regard to their fellow men and of already formed groups of individuals with regard to other groups. . . . Before any act of barter takes place, the idea of mutual exchange of goods and services must be conceived. It is not necessary that the individuals concerned become aware of the fact that such mutuality results in the establishment of social bonds and in the emergence of a social system. The individual does not plan and execute actions intended to construct society. His conduct and the corresponding conduct of others generate social bodies [1966, p. 188].

As a social rationalist, however, Mises leaves no doubt that he considers such ignorance of the remoter consequences of catallactic activity not as a virtue to be hailed in the name of "spontaneity," but as a vice which may ultimately prove destructive of the social division of labor. The reason is that the failure of participants in the division of labor to correctly comprehend the links between their individual actions and social outcomes invites the adoption of ideologies based on erroneous accounts of the nature of society and of social progress. Such falsely-grounded ideologies, in turn, may lead to conduct inconsistent with the continued maintenance of social relations. For example, the struggle for neomercantilist privileges by special interest groups, based on the ideology of interventionism or the "mixed economy," constitutes, according to Mises,

> antisocial conduct which shakes the very foundations of social cooperation. . . . It is the outcome of a narrow-mindedness which fails to conceive the operation of the market economy and *to anticipate the ultimate effects of one's own actions*.
>
> It is permissible to contend that the immense majority of our contemporaries are mentally and intellectually not adjusted to life in the market society although they themselves and their fathers have *unwittingly created this society by their actions*. But this maladjustment consists in nothing else than in the failure to recognize erroneous doctrines as such. [Emphases mine; 1966, p. 319].

Social maladjustment, which is inspired by fallacious ideology, carries in its wake the possibility of social disintegration and is more likely to result the greater the degree to which the consequences of human actions are unintended, or, to use Mises's term, "unwitting." To the extent that social norms, policies, and institutions are "undesigned," are not completely and correctly thought out in advance and accounted for in a logically consistent ideology, to that extent does the continued existence of society become problematic. Following up on this insight, Mises advances a speculative theory of spontaneous social disintegration which links up unwitting consequences with ideological failure:

> The liberal conception of social life has created the economic system based on the division of labor. The most obvious expression of the exchange economy is the urban settlement, which is only possible in such an economy. In the towns the liberal doctrine has been developed into a closed system and it is here that it has found most supporters. But the more and the quicker wealth grew and the more numerous therefore were the immigrants from the country into the towns, the stronger became the attacks which Liberalism suffered from the principle of violence. Immigrants soon find their place in urban life, they soon adopt, externally, town manners and opinions, but for a long time they remain foreign to civic thought. One cannot make a social philosophy one's own as easily as a new costume. It must be earned—earned with the effort of thought. Thus we find, again and again in history, that epochs of strongly progressive growth of the liberal world of thought, when wealth increases with the development of the division of labor, alternate with epochs in which the principle of violence tries to gain supremacy—in which wealth decreases because the division of labor decays. The growth of the towns and of the town life was too rapid. It was more extensive than intensive. The new inhabitants of the towns had become citizens superficially, but not in ways of thought. . . . On this rock all cultural epochs filled with the bourgeois spirit of Liberalism have gone to

> ruin. . . . More menacing than barbarians storming the walls from without are the seeming citizens within—those who are citizens in gesture, but not in thought [1969, p. 49].

If social disintegration may occur "spontaneously," due to an ignorance of the remoter consequences of social action, social progress can only be assured by the widespread adoption of an ideology of social life which *consciously* and correctly accounts for these consequences. This ideology is liberalism. According to Mises:

> In Liberalism humanity becomes conscious of the powers which guide its development. The darkness which lay over history recedes. Man begins to understand social life and allows it to develop consciously. . . .
>
> . . . History is a struggle between two principles, the peaceful principle, which advances the development of trade, and the militarist-imperialist principle, which interprets human society not as a friendly division of labor but as the forcible repression of some of its members by others. The imperialistic principle continually regains the upper hand. The liberal principle cannot maintain itself against it until the inclination for peaceful labour inherent in the masses shall have struggled through to full recognition of its own importance as a principle of social evolution [1969, pp. 48, 302].

The insight that social progress is contingent on the formulation and acceptance of a correct ideology of social life prompts Mises to emphatically reject the social meliorism of older or Enlightenment liberals, which optimistically projected a continuous, uninterrupted improvement in social conditions into the future. To Mises, this—and not the attempt to *rationally design and construct* the institutional framework proper to man's nature as a cooperant in the social division of labor—constitutes the supreme abuse of reason (1966, pp. 864–65). A similar abuse was also committed by the social evolutionists of the nineteenth century—and, one might add, latter-day social evolutionists—who "smuggled into the theory of biological transformation the idea of progress" (Mises 1966, p. 192).

In contrast to the social meliorists and evolutionists, Mises, the social rationalist maintains that "Men are not infallible; they err very often. . . . The good cause will not triumph on account of its reasonableness and expediency. Only if men are such that they will finally espouse policies reasonable and likely to attain the ultimate ends aimed at will civilization improve. . . . Man is free in the sense that he must daily choose anew between policies that lead to success and those that lead to disaster, social disintegration, and barbarism" (1966, p. 193).

The rationalist view of social evolution, therefore, is not one of placid and automatic improvement insured by "unintended" consequences, "undesigned" institutions, "tacit" knowledge, and "natural selection" of rules of conduct. Social rationalism implies, instead, that human history is the outcome of a conflict between ideologies, which are consciously formulated and adopted by reasoning human beings. Whether an epoch is characterized by social progress, social retrogression, or even social disintegration depends upon which particular ideologies have become current and which individuals have attained ideological "might," defined by Mises as "the power to influence other people's choices and conduct" (1966, p. 188). Thus, according to Mises, "The power that calls into life and animates any social body is *always* ideological might, and the fact that makes an individual a member of any social compound is always his own conduct" (1966, p. 196).

The course of social evolution and the fortunes of humanity therefore are inextricably bound up with the fortunes of the ongoing ideological struggle. No social institution can or ever does evolve in a wholly spontaneous or unreflective way, unsullied, as it were, by ideological influences.

A case in point is language, generally cited by social evolutionists as the archetype of a social institution that develops in a basically unconscious fashion. But, as Mises argues, men's conscious reflections on social relationships and their deliberate attempts to redesign them according to the ideologies such reflections give rise to, have a powerful impact on linguistic development. This is so because language, "the most important medium for social cooperation," is at bottom ideological: "[I]t is a tool of thinking as it is a tool of social action" (Mises 1969, p. 321; Mises 1966, p. 177). As such, the abstract terms contained in a living language are "the precipitate of a people's ideological controversies, of their ideas concerning issues of pure knowledge and religion, legal institutions, political organization, and

economic activities. . . . In learning their meaning the rising generation are initiated into the mental environment in which they have to live and to work. This meaning of the various words is in continual flux in response to changes in ideas and conditions" (Mises 1985, p. 232).

In addition, many momentous linguistic changes in history are directly attributable to ideological causes such as political and military events (Mises 1985, pp. 228–30). Gaelic is just one example of a language that first fell into oblivion and then was partially revived as a result of ideological factors (Mises 1944, p. 85; Mises 1985, pp. 229–30). Even in the case in which a particular language is entirely the outcome of peaceful evolution, it would still be the product of a conscious commitment to liberalism, which is the ideological framework necessary to secure the peaceful development of the social division of labor. For, as Mises (1969, pp. 302, 310–11) repeatedly argues, the "oecumenical society" itself, the product of the historical unfolding of social division of labor, is essentially an ideological creation, which has been "slowly forming itself during the last two hundred years under the influence of the gradual germination of the liberal idea. . . . only when the modern liberal thought of the eighteenth century had supplied a philosophy of peace and social collaboration was the basis laid for the astonishing development of the economic civilization of that age."

Ultimately, then, the degree and the direction of social evolution is governed wholly by ideological considerations. In Mises's words "The flowering of human society depends on two factors: the intellectual power of outstanding men to conceive sound social and economic theories, and the ability of these or other men to make these ideologies palatable to the majority" (Mises 1966, p. 864).

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[1] Mises employs this term to characterize the market economy in particular.

[2] Elsewhere, Mises (1966, p. 145) refers to it as “one of the great basic principles of cosmic becoming and evolutionary change.” It is this expression which Butler (1988, p. 336 n. 119) cites as “among the most evident” of the “many examples of Mises’s difficulty with English.” This is not “an odd description of the division of labor,” as Butler (1988, p. 336, n.119) suggests, but a felicitous and perfectly fitting description of its central importance in the ontological structures of the biological and social worlds.

[3] Mises (1966, pp. 143–76) completely drops the biological metaphor in his later discussion of society in *Human Action*, but then reinstates it in *Theory and History* (Mises 1985, pp. 252–53) while criticizing its various misinterpretations. In response to the charge of Butler (1988, p. 108) that Mises at one point “drifts into the organic fallacy,” it should be said that Mises uses the metaphor with complete awareness and with the sole purpose of illustrating the point that the principle of the division

of labor operates in the biological as well as the social realm.

Banking, Nation States, and International Politics: A Sociological Reconstruction of the Present Economic Order

Hans-Hermann Hoppe

Money and Banking

In order to explain the emergence of barter nothing more than the assumption of a narrowly defined self-interest is required. If and insofar as man prefers more choices and goods to fewer, he will choose barter and division of labor over self-sufficiency.

The emergence of money from barter follows from the same narrow self-interest. If and insofar as man is integrated in a barter economy and prefers a higher to a lower standard of living, he will choose to select and support a common media of exchange. In selecting a money he can overcome the fundamental restriction imposed on exchange by a barter economy, i.e., that of requiring the existence of a double coincidence of wants. With money his possibilities for exchange widen. Every good becomes exchangeable for every other, independent of double coincidences or imperfect divisibilities. And with this widened exchangeability the value of each and every good in his possession increases.

Since man is integrated in an exchange economy, self-interest compels him to look out for particularly marketable goods which have desirable money properties such as divisibility, durability, recognizability, portability and scarcity, and to demand such goods not for their own sake but for the sake of employing them as mediums of exchange. And it is in his self-interest to choose that commodity as his medium of exchange that is also used as such most commonly by others. In fact, it is the function of money to facilitate exchange, to widen the range of exchange possibilities, and to thereby increase the value of one's goods (insofar as they are perceived as integrated in an exchange economy). Thus, the more widely a commodity is used

as money, the better it will perform its monetary function. Driven by no more than narrow self-interest, man will always prefer a more general and, if possible, a universal medium of exchange to a less general or non-universal one. For the more common the money, the wider the market in which one is integrated, the more rational one's value and cost calculations (from the viewpoint of someone desiring economic integration and wealth maximization), and the greater the benefits that one can reap from division of labor.[1]

Empirically, of course, the commodity that was once chosen as the best-because-most-universal-money is gold. Without government coercion gold would again be selected for the foreseeable future as the commodity best performing the function of money. Self-interest would lead everyone to prefer gold—as a universally used medium of exchange—to any other money. To the extent that every individual perceives himself and his possessions as integrated into an exchange economy, he would prefer accounting in terms of gold rather than in terms of any other money, because gold's universal acceptance makes such accounting the most complete expression of one's opportunity costs, and hence serves as the best guide in one's attempts to maximize wealth. All other monies would be driven out of use quickly, because anything less than a strictly universal and international money such as gold—national or regional monies, that is—would contradict the very purpose of having money in the first place. Money has been invented by self-interested man in order to increase his wealth by integrating himself into an ever-widening and ultimately universal market. In the way of the pursuit of self-interest, national or regional monies would quickly be out-competed and supplanted by gold, because only gold makes economic integration complete and markets world-wide, thereby fulfilling the ultimate function of money as a common medium of exchange.[2]

The emergence of money, of increasingly better monies, and finally of one universal money, gold, sets productive energies free that previously remained frustrated and idle due to double-coincidence-of-wants-restrictions in the process of exchanges (such as the existence of competing monies with freely fluctuating exchange rates). Under barter the market for a producer's output is restricted to instances of double want coincidences. With all prices expressed in terms of gold the producer's market is all-encompassing, and demand takes effect unrestricted by any absence of double coincidences on a world-

wide scale. Accordingly, production increases—and increases more with gold than with any other money. With increased production the value of money in turn rises; and the higher purchasing power of money reduces one's reservation demand for it, lowers one's effective rate of time preference (the originary rate of interest), and leads to increased capital formation. An upward spiraling process of economic development is set in motion.

This development creates the basis for the emergence of banks as specialized money-handling institutions. On the one hand, banks come forward to meet the increasing demand for the safekeeping, transporting, and clearing of money. On the other hand, they fulfill the increasingly important function of facilitating exchanges between capitalists (savers) and entrepreneurs (investors), actually making an almost complete division of labor between these roles possible. As institutions of deposit and in particular as savings and credit institutions, banks quickly assume the rank of nerve centers of an economy. Increasingly the spatial and temporal allocation and coordination of economic resources and activities takes place through the mediation of banks; and in facilitating such coordination the emergence of banks implies still another stimulus for economic growth.[3]

While it is in everyone's economic interest that there be only one universal money and only one unit of account, and man in his pursuit of wealth maximization will not stop until this goal is reached, it is contrary to such interest that there be only one bank or one monopolistic banking system. Rather, self-interest commands that every bank use the same universal money—gold—and that there then be no competition between different monies, but that free competition between banks and banking systems, all of which use gold, must exist. Only so long as free entry into banking exists will there be cost efficiency in this as in any other business; yet only as long as this competition concerns services rendered in terms of one and the same money commodity will free banking actually be able to fulfill the very function of money and banking, i.e., of facilitating economic integration rather than disintegration, of widening the market and expanding the division of labor rather than restricting them, of making value and cost accounting more rather than less rational, and hence of increasing rather than decreasing economic wealth. The notion of competition between monies is a *contradictio in adjecto*. Strictly speaking, a monetary system with

rival monies of freely fluctuating exchange rates is still a system of (partial) barter, riddled with the problem of requiring double coincidences of wants in order for (some) exchanges to take place. The existence of such a system is dysfunctional of the very purpose of money.[4] Freely pursuing his own self-interest, man would immediately abandon it—and it would be a fundamental misconception regarding the essence of money to think of the free market not only in terms of competing banks but also in terms of competitive monies.[5] Competitive monies are not the outcome of free market actions but are invariably the result of coercion, of government imposed-obstacles placed in the path of rational economic conduct.

With free banking based on a universal gold standard emerging, the goal of achieving the most cost efficient solution to coordinating and facilitating interspatial and intertemporal exchanges within the framework of a universally integrated market is accomplished. Prices for the service of safekeeping, transporting and clearing money, as well as for advancing money in time-contracts would drop to their lowest possible levels under a regime of free entry. And since these prices would be expressed in terms of one universal money, they would truly reflect the minimum costs of providing market-*integrative* services.

Moreover, bank competition combined with the fact that money must emerge as a commodity—such as gold—which in addition to its value as money has a commodity value and thus cannot be produced without significant cost-expenditure, also provides the best possible safeguard against fraudulent banking.

As money depositing institutions, banks—much like other institutions depositing fungible commodities yet more so in the case of banks because of the special role of the commodity money—are tempted to issue “fake” warehouse receipts, i.e., notes of deposit not covered by real money, as soon as such banknotes have assumed the role of money substitutes and are treated by market participants as unquestionable equivalents of actually deposited real money. In this situation, by issuing fake or fiat banknotes that physically cannot be distinguished from genuine money substitutes, a bank can—fraudulently and at another’s expense—increase its own wealth. It can directly purchase goods with such fake notes and thus enrich itself in the same way as any simple counterfeiter does. The bank’s real wealth and the wealth of the early recipients of the money increases through these purchases, and at the same time and by the same action the wealth of those receiving the new money

late or not at all decreases, due to the inflationary consequences of counterfeiting. Or a bank can use such fiat money to expand its credit and earn interest on it. Once again a fraudulent income and wealth redistribution in the bank's favor takes place.[6] Yet in addition, this time a boom-bust cycle is also set in motion: placed at a lowered interest rate, the newly granted credit causes increased investments and initially creates a boom that cannot be distinguished from an economic expansion; however, this boom must turn bust because the credit that stimulated it does not represent real savings but instead was created out of thin air. Hence, with the entire new and expanded investment structure under way, a lack of capital must arise that makes the successful completion of all investment projects systematically impossible and instead requires a contraction with a liquidation of previous malinvestments.[7]

Under the gold standard any bank or banking system (including a monopolistic one) would be constrained in its own inclination to succumb to such temptations by two requirements essential for successful counterfeiting. On the one hand, the banking public must not be suspicious of the trustworthiness of the bank—that is, its anti-fraud vigilance must be low—for otherwise a bank run would quickly reveal the committed fraud. And, on the other hand, the bank cannot inflate its notes at such a pace that the public loses confidence in the notes' purchasing power, reduces its reservation demand for them and flees instead towards "real" values, including real money, and thereby drives the counterfeiter into bankruptcy. Under a system of free banking, however, with no legal tender laws and gold as money, an additional constraint on potential bank fraud arises. For then every bank is faced with the existence of non-clients or clients of different banks. If in this situation additional counterfeit money is brought into circulation by a bank, it must invariably reckon with the fact that the money may end up in non-clients' hands who demand immediate redemption, which the bank then would be unable to grant without at least a painful credit contraction. In fact, such a corrective contraction could only be avoided if the additional fiat money were to go exclusively into the cash reserves of the bank's own clients and were used by them exclusively for transactions with other clients. Yet since a bank would have no way of knowing whether or not such a specific outcome could be achieved, or how to achieve it, the threat of a following credit contraction would act as an inescapable economic deterrent to any bank fraud.[8]

The State and the Monopolization of Money and Banking

The present economic order is characterized by national monies instead of one universal money; by fiat money instead of a commodity such as gold; by monopolistic central banking instead of free banking; and by permanent bank fraud, and steadily repeated income and wealth redistribution, permanent inflation and recurring business cycles as its economic counterparts, rather than 100 percent reserve banking with none of these consequences.

In complete contradiction, then, to man's self-interest of maximizing wealth through economic integration, different anti-economic interests prevailing over economic ones must be responsible for the emergence of the contemporary monetary order.

One can acquire and increase wealth either through homesteading, production and contractual exchange, or by expropriating and exploiting homesteaders, producers, or contractual exchangers. There are no other ways. Both methods are natural to mankind. Alongside an interest in producing and contracting there has always been an interest in non-productive and non-contractual property and wealth acquisitions. And in the course of economic development, just as the former interest can lead to the formation of productive enterprises, firms and corporations, so can the latter lead to large-scale enterprises and bring about governments or states.[9]

The size and growth of a productive enterprise is constrained on one hand by voluntary consumer demand, and on the other by the competition of other producers that continuously forces each firm to operate with the lowest possible costs if it wishes to stay in business. For such an enterprise to grow in size, the most urgent consumer wants must be served in the most efficient ways. Nothing but voluntary consumer purchases support its size.

The constraints on the other type of institution—the state—are altogether different.[10] For one thing, it is obviously absurd to say that its emergence and growth is determined by demand in the same sense as an economic firm. One cannot say by any stretch of the imagination that the homesteaders, the producers and the contractual exchangers who must surrender (part of) their assets to a state have demanded such a service. Instead, they are coerced into accepting it, and this is conclusive proof of

the fact that the service is not at all in demand. On the other hand, the state is also not constrained in the same way by competition as is a productive firm. For unlike such a firm, the state must not keep its costs of operation at a minimum, but can operate at above-minimum costs, because it is able to shift its higher costs onto its competitors by taxing or regulating their behavior. Thus as a state emerges, then, it does so *in spite* of the fact that it is neither in demand nor efficient.

Instead of being constrained by cost and demand conditions, the growth of an exploiting firm is constrained by public opinion: non-productive and non-contractual property acquisitions require coercion, and coercion creates victims. It is conceivable that resistance can be lastingly broken by force in the case of one man (or a group of men) exploiting one or maybe two or three others (or a group of roughly the same size). It is inconceivable, however, to imagine that force alone can account for the breaking down of resistance in the actually familiar case of small minorities expropriating and exploiting populations ten, hundreds, or thousands of times their size. For this to happen a firm must have public support in addition to coercive force. A majority of the population must accept its operations as legitimate. This acceptance can range from active enthusiasm to passive resignation. But acceptance it must be in the sense that a majority must have given up the idea of actively or passively resisting any attempt to enforce non-productive and non-contractual property acquisitions. Instead of displaying outrage over such actions, of showing contempt for everyone who engages in them, and of doing nothing to help make them successful (not to mention actively trying to obstruct them), a majority must actively or passively support them. State-supportive public opinion must counterbalance the resistance of victimized property owners such that active resistance appears futile. And the goal of the state, then, and of every state employee who wants to contribute toward securing and improving his own position within the state, is and must be that of maximizing exploitatively acquired wealth and income by producing favorable public opinion and creating legitimacy.

There are two complementary measures available to the state trying to accomplish this. First, there is ideological propaganda. Much time and effort is spent persuading the public that things are not really as they appear: exploitation is really freedom; taxes are really voluntary; non-contractual relations are really “conceptually” contractual ones;[11] no one is ruled by

anyone but we all rule ourselves; without the state neither law nor security exists; and the poor would perish, etc.

Second, there is redistribution. Instead of being a mere parasitic consumer of goods that others have produced, the state redistributes some of its coercively appropriated wealth to people outside the state apparatus and thereby attempts to corrupt them into assuming state-supportive roles.

But not just any redistribution will do. Just as ideologies must serve a—statist—purpose, so must redistribution. Redistribution requires cost-expenditures and thus needs a justification. It is not undertaken by the state simply in order to do something nice for some people, as, for instance, when someone gives someone else a present. Nor is it done simply to gain as high an income as possible from exchanges, as when an ordinary economic business engages in trade. It is undertaken in order to secure the further existence and expansion of exploitation and expropriation. Redistribution must serve this strategic purpose. Its costs must be justified in terms of increased state income and wealth. The political entrepreneurs in charge of the state apparatus can err in this task, as can ordinary businessmen, because their decisions about which redistributive measures best serve this purpose have to be made in anticipation of their actual results. And if entrepreneurial errors occur, the state's income may actually fall rather than rise, possibly even jeopardizing its own existence. It is the very purpose of state politics and the function of political entrepreneurship to avoid such situations and to choose instead a policy that increases state income.

While neither the particular forms of redistributive policies nor their particular outcomes can be predicted, but change with changing circumstances, the nature of the state still requires that its redistributive policy must follow a certain order and display a certain structural regularity.[12]

As a firm engaged in the maximization of exploitatively appropriated wealth, the state's first and foremost area in which it applies redistributive measures is the production of security, i.e. of police, defense, and a judicial system. The state ultimately rests on coercion and thus cannot do without armed forces. Any competing armed forces—which would naturally emerge on the market in order to satisfy a genuine demand for security and protection services are a threat to its existence. They must be eliminated. To do this is to arrogate the job to itself and become the monopolistic supplier and redistributor of protection services

for a defined territory. Similarly, a competing judicial system would pose an immediate threat to a state's claim to legitimacy. And again, for the sake of its own existence the judicial system must also be monopolized and legal services included in redistributive schemes.

The state's nature as an institution engaged in organized aggression also explains the importance of the next field of redistributive activities: that of traffic and communication. There can be no regular exploitation without monopolistic control of rivers, coasts, seaways, streets, railroads, airports, mail and telecommunication systems. Thus, these areas, too, must become the object of redistribution.

Of similar importance is the field of education. Depending as it does on public opinion and its acceptance of the state's actions as legitimate, it is essential for a state that unfavorable ideological competition be eliminated as far as possible and statist ideologies spread. The state attempts to accomplish this by providing educational services on a redistributive basis.

Furthered by a system of state education, the next crucial area for redistribution is that of redistributing state power itself, i.e., the right assumed by the state to expropriate, exploit and redistribute non-productively appropriated assets. Instead of remaining an institution which restricts entry into itself and/or particular government positions, a state increasingly, and for obvious strategic reasons, adopts an organizational structure which in principle opens up every position to everyone and grants equal and universal rights of participation and competition in the determination of state policy. Everyone—not just a privileged "nobility"—receives a legal stake in the state in order to reduce the resistance to state power.[13]

With the monopolization of law and security production, traffic, communication and education, as well as the democratization of state rule itself, all features of the modern state have been identified but one: the state's monopolization of money and banking. For all but this one it has been explained—albeit briefly—how they can and must be understood as performing strategic functions: why and how they are not normal productive contributions determined by demand and supply forces or simply good deeds, but redistributive activities which serve the purpose of stabilizing and, if possible, increasing a state's exploitatively appropriated income and wealth.

The monopolization of money and banking is the ultimate pillar on which the modern state rests. In fact, it has probably

become the most cherished instrument for increasing state income. For nowhere else can the state make the connection between redistribution-expenditure and exploitation-return more directly, quickly and securely than by monopolizing money and banking. And nowhere else are the state's schemes less clearly understood than here.

Preferring—like everyone—a higher to a lower income, yet—unlike others—being in the business of non-productive and non-contractual property acquisitions, the state's position regarding money and banking is obvious: its objectives are served best by a pure fiat money monopolistically controlled by the state. For only then are all barriers to counterfeiting removed (short of an entire breakdown of the monetary system through hyperinflation) and the state can increase its own income and wealth at another's expense practically without cost and without having to fear bankruptcy.[14]

However, there are obstacles in the way of attaining this enviable state of affairs. On the one hand, there is the inexorable fact that money can emerge only as a commodity. It is impossible to start out with fiat money.[15] On the other hand, there is the problem that while enrichment through counterfeiting is no doubt less conspicuous than doing so by means of taxation, it is nonetheless a measure that is bound to be noticed, certainly by the banks, particularly if it occurs on a regular basis. And so it is also impossible for the state to get away with institutionalized counterfeiting unless it can be combined with redistributive measures which are capable of bringing about another favorable change in public opinion.

This problem and the state's natural desire essentially determine the course of its actions.

As the result of free market processes, the state finds gold established as money and a system of free banking. Its goal is the destruction of this system and with it the removal of all obstacles to counterfeiting. Technically (ignoring for the moment all psychological difficulties involved in this), the sequence of steps that must be taken in order to accomplish this objective is then dictated. In a first step the minting of gold must be monopolized by the state. This serves the purpose of psychologically deinternationalizing gold by shifting the emphasis from gold as denominated in universal terms of weight to gold as denominated in terms of fiat labels. And it removes a first important obstacle toward counterfeiting because it gives the state the very institutional means of enriching itself through a

systematic process of currency debasement.

Second, the use of money substitutes instead of actual gold must be systematically encouraged and such a tendency backed up by the enactment of legal tender laws. The counterfeiting process thereby becomes much less costly. Instead of having to remint gold, only paper tickets must be printed.

However, the problem already discussed earlier remains, that as long as a system of free banking is in operation the counterfeit notes cannot be prevented from returning to the note issuer with the request for redemption, and that he then cannot —at least not without a contractive adjustment—fulfill his obligations. To overcome this obstacle, in the next step the state must monopolize the banking system or force the competing banks into a cartel under the tutelage of its own state-operated central bank. Once it is in command of a monopolized or cartelized banking system, the state can put the coordinated and joint counterfeiting process of the entire banking system into effect that avoids this risk.

In the next step gold must be nationalized, i.e., the state must require all banks to deposit their gold at the central bank and conduct their business exclusively with money substitutes instead of gold. This way gold disappears from the market as an actually used medium of exchange and instead everyday transactions become increasingly characterized by the use of central bank notes.

Finally, gold being already out of sight and in the state's sole possession, the state must cut the last tie to gold by reneging on its contractual obligations and declaring its notes irredeemable. Built on the ruins of gold, which as a commodity money standard initially made it possible that paper notes could actually acquire any purchasing power, a pure fiat money standard has been erected and can now be kept in operation, at long last handing the state the unlimited counterfeiting power that it had been vying for.

The goal of a complete counterfeiting autonomy likewise dictates the strategy that must be pursued on the psychological front. Obviously, in approaching its ultimate goal the state creates victims and thus it is also in need of favorable public opinion. Its rise to absolute counterfeiting power must be accompanied by redistributive measures that generate the support necessary to overcome all upcoming forces of resistance. It must look for allies.

Regarding the state's monopolization of law and order,

traffic, communication and education, and the democratization of its organizational structure—while it is clear that they are all redistributive measures and as such imply favoring one person at the expense of another—it is difficult if not impossible to identify the gainers and the losers with definite social classes: there can be gainers (or losers) across different classes; within one social class there can be gainers and losers; and the pattern of redistribution can shift over time. In all of these cases the link between the state's redistributive expenditures and their payoffs is only indirect; whether or not certain education expenditures, for instance, pay off in terms of increased state income will only become visible at a later date; and even then it will be difficult to attribute such an outcome to a definite cause. In the case of the monopolization of money and banking, on the other hand, who outside the apparatus of the state itself will be the benefactors of its redistributive policies and who the losers is clear at once; and sociologically the benefactors can easily be identified with a specific social class. In this case the connection between the state's handing out redistributive favors and its own enrichment is direct and close-circuited; and the attribution of causes obvious: the state is compelled to make banks and the social class of bankers its accomplices by allowing them to participate in its counterfeiting operations and so enrich themselves along with the state's own enrichment.

Bankers would be the first ones to become aware of the state's attempts at counterfeiting. Without special incentives to the contrary they would have no reason to support such actions and every reason to uncover and stop them as quickly as possible. And the state would not run into just any opposition here: bankers, because of their exalted position in economic life and in particular because of their far-reaching interconnectedness as a professional group resulting from the nature of their business as facilitators of interspatial and intertemporal exchanges, would be the most formidable opposition one might encounter. The incentive necessary to turn such potential enemies into natural allies is the state's offer to cut them in on its own fraudulent machinations. Familiar with the ideas of counterfeiting and its great potential for one's own enrichment, but knowing, too, that there is no chance of engaging in it without running the immediate risk of bankruptcy under free, competitive banking and a gold standard, bankers are faced with an almost irresistible temptation. Going along with the state's policy of monopolizing money and banking also

means fulfilling one's own dreams of getting rich fast. Not only the state comes into its own once a pure fiat money standard is established. Provided that they are accorded the privilege by the state to counterfeit in addition to its own counterfeited notes under a monetary regime of less than 100 percent reserve banking, with the central bank functioning as a last resort counterfeiter, banks can only too easily be persuaded to regard the establishment of such a monetary system as their ultimate goal and as a universal panacea.[16]

Economically, this coalition between the state—as the dominant partner—and the banking system—as its affiliate—leads to permanent inflation (constrained only by the imperative of not overdoing it and causing a breakdown of the entire monetary system), to credit expansion and steadily recurring boom-bust cycles, and to a smooth uninterrupted income and wealth redistribution in the state's and the banks' favor.

Still more important, however, are the sociological implications of this alliance: with its formation a ruling class whose interests are tied in closely with those of the state is established within civil society. Through its cooperation the state can now extend its coercive power to practically every area of society.

Before the establishment of the state-banking alliance, the sociological separation between state and society, i.e., between an exploitative ruling class and a class of exploited producers, is almost complete and clearly visible. Here is a civil society that produces all economic wealth; and there is the state and its representatives who draw parasitically on what others have produced. People are members either of civil society or the state and see their own interests connected with either the former or the latter. To be sure, there are then redistributive activities going on which favor parts of society at the expense of others and which help divert interests from the pursuit of economic integration to that of supporting exploitation. Yet social corruption is unsystematic at this stage. It is not corruption of social classes which are connected society-wide, but rather corruption of various disparate and dispersed individuals or groups. And these interests are only connected to those of the state rather tenuously through certain specific redistributive state activities, rather than through a direct "cash-connection."

With the formation of a state-banking alliance all this becomes different. A cash-connection between parts of civil society and the state exists—and nothing ties people more closely

together than joint financial interests. Moreover, this connection is established between the state and what can be identified not only as a closely interconnected social class, but as one of the most widely influential and powerful ones. In fact, it is not just the banks who join interests with the state and its policy of exploitation. The banks' major clients, the business establishment and the leaders of industry become deeply integrated in the state's counterfeiting schemes, too. For it is they who—apart from state and banks—are the earliest receivers of most of the regularly created counterfeit money. In receiving the counterfeit money before it gradually ripples through the economic system and thereby changes relative prices as well as increases the overall price level, and in receiving credit at fraudulently lowered interest rates, they, too, enrich themselves at the expense of all savers and all later recipients or non-recipients of this money.[17]

Moreover, this financial coalition between the industrial establishment, banks, and the state tends to be reinforced by each successive course of events. The credit expansion leads to increased investment and—since it is not covered by an increase in genuine savings—will inevitably result in a corrective contraction. In order to avoid losses or even bankruptcy the banks' clients will approach the banking system with an increased demand for liquidity (i.e., money). Naturally, to avoid losses the banks are eager to help their clients—and the more established the client the more eager. Unable to do this on their own, they turn to the state and its central bank. And the state, then, being offered another chance at its own enrichment, accepts and provides the banking system, and by extension the business establishment, with the needed liquidity by means of a new round of counterfeiting. The alliance is renewed, and the state has reaffirmed its dominant role by having saved the established banking and industrial elite from crumbling in the face of economic competition and allowing them instead to preserve the status quo or even further increase the wealth already concentrated in their hands. There is reason to be thankful and to reciprocate with invigorated public support for the state and its propaganda.

To be sure, this coalition between the state and the economic power elite by no means implies a complete identity of interests. The various established industrial enterprises may have different or even contrary interests; and the same is true for the banks. Similarly, the interests of banks and business clients may

in many respects be different. Nor do interests of the industrial elite or the banks coincide completely with those of the state. For after all, banks as well as industrial enterprises are also in the "normal" business of making money through production and productive exchanges—whatever other sources of income acquisition may be available to them. And in this function their interests may well clash with the state's desire for taxes, for instance. Nonetheless, the establishment of a system of monopolized money and banking still creates one interest common to all of them: an interest in the preservation of the state apparatus and the institution of political (i.e., exploitative) means of income appropriation as such. Not only could the state and its central bank destroy any commercial bank and, indirectly, practically any industrial enterprise; this threat is more severe the more established a business is. The state could also help any and all of them get richer, and more so if they are already rich. Hence, the more there is to lose from opposition and to gain from compliance, the more intensive will be the attempts by the economic power elite to infiltrate the state apparatus and have the state leaders assume financial interests in the business world. Bankers and industrialists become politicians; and politicians take positions in banking and industry. A social system emerges and is increasingly characteristic of the modern world in which the state and a closely associated class of banking and business leaders exploit everyone else.[18][19]

International Politics and International Monetary Order

Man's economic interests, i.e., his interests in improving his income and wealth by means of producing and exchanging, lead to the emergence of a universally used commodity money—gold—and a system of free banking.

Man's political interests, i.e., his interests in improving his income and wealth through exploitation—at the expense of producers and contractors—lead to the formation of states, the destruction of the gold standard, and the monopolization of money and banking.

Yet once a state is established as a monopolist of exploitation and counterfeiting new problems emerge. For even if its monopolistic position is secured within a given territory, competition between states operating in different territories still exists. It is this competition which imposes severe limits on any

one government's exploitative powers. In one instance, it opens up the possibility that people will vote against a government with their feet and leave its territory if they perceive other territories as offering less exploitative living conditions. Or if other states are perceived as less oppressive, the likelihood increases of a state's subjects collaborating with such foreign competitors in their desire to "take over." Both of these possibilities pose a crucial problem for each state. For each literally lives off a population, and any population loss is thus a loss of potential state income. Similarly, any state's interest in another's internal affairs must be interpreted as a threat, in particular, if it is supported by the latter's own subjects, because in the business of exploitation one can only prosper as long as there is something that can be exploited and, obviously, any support given to another state would reduce what remains left over for itself.

In another instance, with several competing states each individual state's counterfeiting power becomes severely limited. In fact, on the international level a problem reemerges which is directly analogous to the obstacle to counterfeiting which was implied by a system of free banking, and which the states solved internally through the monopolization or cartelization of banking. The situation is characterized by different national paper monies with freely fluctuating exchange rates. If one state counterfeits more extensively than another, its currency is bound to depreciate in terms of the other, and for a state this means (whatever different things it may mean for its various subjects) that its income has declined in relation to that of another state. With this its power vis-à-vis that of another state is decreased. It becomes more vulnerable to a competing state's attacks (military or economic). Naturally, it is in no state's interest to see this happen, and thus one's counterfeiting desire must be restrained accordingly. Counterfeiting still continues permanently, of course, because it is in every state's own interest; but no state is truly autonomous in its decision about how much to inflate and instead must at all times pay close attention to the inflationary policies of its competitors and flexibly adjust its own actions to theirs.

In order to maximize its exploitatively acquired income, it is in a state's natural interest to overcome both of these external restrictions on internal power. Cartelization would seem a possible solution. However, it must fail as such because—due to the lack of a monopolistic enforcement agency—interstate cartels

could only be voluntary and would hence appear less attractive to a state the more powerful it already is and the less inflationary its counterfeiting policy. By joining any such cartel a state would harm itself to the advantage of less successful and more inflationary states. There is only one stable solution for the problem then: a state must aim to expand its territory, eliminate its competitors and, as its ultimate goal, establish itself as a world government. And parallel to this must be its attempts to make its paper currency used in wider territories and ultimately make it the world currency under the control of its own world central bank. Only if these goals are achieved will a state truly come into its own. There are many obstacles on this path, and these may prove so severe as to make it necessary to settle for less than such a perfect solution. However, as long as there is a state in existence, such an interest is operative and must be understood as such if one is to correctly interpret past developments as well as future tendencies (after all it took the states several centuries to reach their present internal counterfeiting powers).

The means for accomplishing the first of its two integrated goals is war. War and state are inextricably connected.[20] Not only is a state an exploitative firm and its leading representatives can thus have no principled objection to non-productive and non-contractual property acquisitions—otherwise they would not do what they do or the state would simply fall apart and dissolve. And it cannot be surprising then that they should also have no fundamental objection to a territorial expansion of exploitation by means of war. In fact, war is the logical prerequisite of a later cease-fire; and its own internal, institutionalized system of exploitation is nothing but a—legitimate—cease-fire, i.e., the result of previous conquests. In addition, as the representatives of the state they are also in command of the very means which make it increasingly likely that one's aggressive desires can actually be put into effect. In command of the instrument of taxation and, even better for this purpose, of absolute internal counterfeiting powers, the state can let others pay for its wars. And naturally, if one does not have to pay for one's risky ventures oneself but can force others to do so, or if one can simply create the needed funds out of thin air, one tends to be a greater risk-taker and more trigger happy than one would otherwise be.

While independent of demand and hence by nature a more aggressive institution than any normal business that would have

to finance its wars with income gained exclusively through voluntary transactions and that would thus face immediate financial repercussions if only a single one of its clients reduced his purchases in response to his dissatisfaction with this business' war policy, the state is still not entirely free of all constraints in its pursuit of foreign aggression. Just as states emerge, although there is no demand for them, so wars occur without having been demanded. But as the emergence and the growth of states is constrained by public opinion, so also are the states' war endeavors. For obviously, in order to come out of an interstate war successfully, a state must be in command of sufficient—in relative terms—economic resources which alone make its actions sustainable. However, these resources can only be provided by a productive population. Thus, to secure the means necessary to win wars and to avoid being confronted with slackening productive outputs while at war, public opinion again turns out to be the decisive variable constraining a state's foreign policy. Only if popular support for the state's war exists can it be sustained and possibly won. The support from the banking and business establishment can be won easily, provided the foreign aggression promises a successful end and its cost can be established with a sufficient degree of accuracy. Not everyone of this class will be ready to join in, of course, because one may have vested interests in the to-be-conquered territory that will be damaged in the event of an interstate conflict; or one may wish that country *C* rather than *B* would be attacked; or one may even in principle be opposed to war. But generally, the expectation that along with one's own state's victory the business and banking elite would become established as a ruling class over a larger territory, with correspondingly expanded possibilities for financial exploitation, is a most powerful reason for the economic—in particular the banking—elite to pay close attention to the war option.

Yet their support is by no means sufficient. In wartime even more so than during peacetime a state is dependent on every single person's willingness to work and produce (there can no longer be any loafers during wartime). To ensure widespread enthusiasm, all states must help create and support nationalistic ideologies. They have to wrap themselves up as nation states and pose as the banner carriers and protectors of the superior values of one's own nation as distinct from those of others, in order to generate the public identification with one specific state. This necessary in order to then turn around and wipe out the

independence of more and more distinct nations and separate ethnic, linguistic, and cultural groups.

However, something more substantial is required in order to keep the population working and producing the resources needed for a war: after all, the other states assumedly have the support of their business elite; and they, too, have created a spirit of nationalism in their territories. Assuming further that the antagonistic states initially control populations of comparable size and territories with similar natural endowments, the decisive variable determining victory or defeat becomes the relative economic wealth of the societies involved; their relative degree of economic development and capital accumulation. Those states tend to be victorious in interstate warfare that can parasitically draw on superior economic wealth. Clearly though, in order to be in this position conditions relatively favorable to wealth and capital formation in their respective territories must previously have existed. States do not positively contribute to this. On the contrary, as institutions engaged in non-productive and non-contractual property acquisitions, their very existence is destructive of wealth and capital accumulation. However, they can make a negative contribution. Wealth and capital comes into existence only through homesteading, producing and contracting; and a relatively lower degree of exploitation of homesteaders, producers and contractors means a—relative—boost to capital formation which in the next round of exploitation can give the state the additional resources necessary to succeed militarily over its foreign competitors. Thus, what is also required in order to win wars is a relatively high degree of internal liberalism.

Paradoxical as it may first seem, the more liberal[21] a state is internally, the more likely it will engage in outward aggression. Internal liberalism makes a society richer; a richer society to extract from makes the state richer; and a richer state makes for more and more successful expansionist wars. And this tendency of richer states toward foreign intervention is still further strengthened, if they succeed in creating a “liberationist” nationalism among the public, i.e., the ideology that above all it is in the name and for the sake of the general public’s own internal liberties and its own relatively higher standards of living that war must be waged or foreign expeditions undertaken.

In fact, something still more specific can be stated about internal liberalism as a requirement and means for successful imperialism. The need for a productive economy that a warring state must have also explains why it is that *ceteris paribus* those

states tend to outstrip their competitors in the arena of international politics which have adjusted their internal redistributive policies so as to decrease the importance of economic regulations relative to that of taxation. Regulations through which states either compel or prohibit certain exchanges between two or more private persons as well as taxation imply a non-productive and/or non-contractual income expropriation and thus both damage homesteaders, producers, or contractors. However, while by no means less destructive of productive output than taxation, regulations have the peculiar characteristic of requiring the state's control over economic resources in order to become enforceable without simultaneously increasing the resources at its disposal. In practice, this is to say, they require the state's command over taxes, yet they produce no monetary income for the state (instead, they satisfy pure power lust, as when *A*, for no material gain of his own, prohibits *B* and *C* from engaging in mutually beneficial trade). On the other hand, taxation and a redistribution of tax revenue according to the principle "from Peter to Paul," increases the economic means at the government's disposal at least by its own "handling charge" for the act of redistribution. Since a policy of taxation, and taxation without regulation, yields a higher monetary return to the state (and with this more resources expendable on the war effort!) than a policy of regulation, and regulation with taxation, states must move in the direction of a comparatively deregulated economy and a comparatively pure tax-state in order to avoid international defeat.[22]

With the backdrop of these theoretical considerations about the nature of the state and international politics, much of history falls into place. Lasting over centuries, practically uninterrupted series of interstate wars vividly confirm what has been stated about the inherently aggressive nature of states. Similarly, history dramatically illustrates the tendency towards increased relative concentration of states as the outcome of such wars: states' aggressive expansionism has led to the closing of all frontiers, and a steady decline in the number of states along with an equally steady increase in the territorial size of those states that managed to survive. No world state has yet been brought about, but a tendency in this direction is undeniably present.

More specifically, history illuminates the central importance that internal liberalism has for imperial growth: first, the rise of the states of Western Europe to world prominence can be so explained. It is in Western Europe that, built on the older

intellectual traditions of Greek and Stoic philosophy as well as Roman law, the ideology of natural rights and liberalism emerged.[23] It was here that—associated with names such as St. Thomas Aquinas, Luis de Molina, Francisco Suarez and the late sixteenth-century Spanish Scholastics, Hugo Grotius, Samuel Pufendorf and John Locke—it increasingly gained influence in public opinion; and where the various states' internal powers of exploitation were then correspondingly weakened. And their power was even further weakened by the fact that pre-modern Europe was characterized by a highly competitive, almost anarchic international system, with a multitude of rivaling small scale states and feudal principalities. It was in this situation that capitalism originated.[24] Because the states were weak, homesteaders, producers and contractors increasingly began to accumulate capital; previously unheard of economic growth rates were registered; for the first time a steadily increasing population could be sustained; and, in particular with the population growth leveling off, gradually but continuously the general standard of living began to rise, finally leading to what is called the Industrial Revolution. Drawing on this superior wealth of capitalist societies the weak, liberal states of Western Europe became the richest states on earth. And this superior wealth in their hands then led to an outburst of imperialist ventures which for the first time in history established the European states as genuine world powers, extending their hegemonic rule across all continents.

Similarly, England's outstanding role among the West European states can be explained. The most liberal country of all, the British government became the most successful imperialist.[25] And the relative decline of England (and Western Europe) and the rise of the United States to the world's foremost imperialist power fits the theoretical picture as well. With no feudal past to speak of and British imperialism defeated, liberalism was still more pronounced in the United States than anywhere in Europe. State power was at its weakest, hardly to be noticed in people's daily activities. Accordingly, economic growth was higher than in all other countries; standards of living went up; the population increased; and living standards and population size gradually surpassed those of all West European countries. At the same time, beginning in the late nineteenth century England and Western Europe suffered from reinvigorated internal statism brought about by the emergence of socialist ideologies. It was this superior economic wealth—produced by a

little-exploited civil society—which allowed the internally weak United States government apparatus to slowly become the richest, most resourceful state, and turn these resources toward foreign aggression and in time establish itself as the dominant world power, with "home bases" all around the globe and direct or indirect military dominance and hegemonic control over a large part of the world (with the exception of the Soviet Union and China and their respective satellites).[26] The nineteenth century already displayed aggressive expansionism of the—liberal—United States government second to none. Since as early as 1801, when the United States Navy was sent on a punitive mission to the remote area around Tripoli, virtually no single year has passed without United States government intervention somewhere in the world.[27] Three major wars were waged: against England (1812); against Mexico (1846–48), in which Mexico lost half its territory; and against Spain (1898), which resulted in the United States' occupation of Cuba and the Philippines. Contrary to popular myth, the Civil War, too, was essentially an expansionist war waged by the relatively more liberal North against the Confederate states. However, the great breakthrough to world dominance did not occur until the twentieth century, when the United States entered World Wars I and II. Both wars dramatically proved the superiority of United States might over the European states. The United States determined the victors as well as the losers, and both wars ended with a victory of the more liberal United States government—resting on a less taxed and regulated economy—over all of the more socialist-authoritarian European states (including the Soviet Union) with their more heavily taxed and regulated economies. With the end of World War II the United States had reached hegemony over Europe and, as heir to the European states' foreign empires, over large territories all around the world. Since World War II the United States has continued and even intensified its unrivaled expansionism with smaller or larger military interventions in Greece, Iran, Korea, Guatemala, Indonesia, Lebanon, Laos, Cuba, the Congo, British Guiana, the Dominican Republic, Vietnam, Chile, Grenada, and Nicaragua.[28]

Finally, history also provides the most vivid illustration of the direct link between a state's internal powers of counterfeiting and its policy of external aggression, as well as the banking and business elite's conspiracy with the state in its expansionist desires. The watershed mark in the process leading to the rise of

the United States as the world's premier power is World War I. The United States government could not have entered and successfully won this initially inner-European war without the absolute counterfeiting power that was achieved in 1913 with the establishment of the Federal Reserve System. It would have lacked the resources to do so. With a central banking system in place, a smooth transition to a war economy could be made and it became possible for the United States to get involved more deeply in the war and enlarge it to one of history's most devastating wars. And just as the prior establishment of the Federal Reserve System had been enthusiastically supported by the banking establishment (in particular by the houses of Rockefeller, Morgan, and Kuhn, Loeb and Co.), so the United States policy of entering the war on the Allied side found its most ardent supporters among the economic elite (notably in the firm of J. P. Morgan and Co. as the fiscal agent of the Bank of England and monopoly underwriter of British and French bonds as well as a major arms producer, and represented within the Wilson administration by such powerful forces as William G. McAdoo, Secretary of the Treasury and Wilson's son-in-law; Colonel Edward M. House, Wilson's intimate foreign policy adviser; and Benjamin Strong, Governor of the Federal Reserve Bank of New York).[29]

There is only one important element still missing from a complete reconstruction of the present international order: money. It is in a state's natural interest to expand its territory militarily; and hence, one should expect a tendency toward a relative concentration of states. It is also in a state's interest to engage in "monetary imperialism," i.e., to extend its counterfeiting power over larger territories; thus, a tendency toward a one-world paper currency should be expected. Both interests and tendencies complement each other. On the one hand, any step in the direction of an international counterfeiting cartel is bound to fail if it is not complemented by the establishment of military dominance and hierarchy. External and internal economic pressures would tend to burst the cartel. With military superiority, however, an inflation cartel becomes possible. On the other hand, once military dominance has made such a cartel possible, the dominant state can actually expand its exploitative power over other territories without further war and conquest. In fact, the international cartelization of counterfeiting allows the dominant state to pursue through more sophisticated (i.e., less visible) means what war and conquest alone might not

be able to achieve.

In the first step a dominant state (a state, that is, which could crush another militarily and is perceived as capable of doing so) will use its superior power to enforce a policy of internationally coordinated inflation. Its own central bank sets the pace in the counterfeiting process, and the central banks of dominated states are ordered to inflate along with the dominating state. In practical terms, the dominating state's paper currency is imposed as a reserve currency on foreign central banks, and they are pressured to use it as a basis for their own inflationary actions.

Constrained not by actual demand but only by public opinion, it is relatively easy for a dominant state to accomplish this goal. Direct territorial conquest and the direct implementation of its own currency in foreign territories can be prohibitive because of the state of national or foreign public opinion. Yet with the power to destroy any specific foreign government—even though it is not strong enough for a complete take-over—little is required in order for the dominant state to succeed in *monetary* imperialism.

Internally, it will most likely encounter no resistance whatsoever. The government itself will be satisfied with this solution. For once its own currency is employed as a reserve currency by foreign banks on which they then pyramid their various national paper monies, it becomes possible for it to engage in an almost costless expropriation of foreign property owners and income producers without having to fear contractive consequences. Similarly, its own banking and business elite is ready to accept such an arrangement, because they, too, can thereby safely participate in foreign exploitation. Banks in particular are enthusiastic. And the public is largely ignorant of what is happening, or considers the exploitation of foreigners minor as compared to internal problems.

Externally, matters are only slightly more complicated. The dominated state loses resources to the dominating one as a consequence of this monetary regime. But faced with the possibility of losing its internal control altogether, it naturally prefers acquiescing to a scheme which not only allows it to stay in power but to actually continue in its own fraudulent expropriations of its own population by inflating its currency on top of and in accordance with the dominating state's paper money creation. For essentially the same reason bank and business elites, as the first receivers of their respective states'

counterfeit money, are willing to accept this solution. And the general public in the dominated territories, which through this arrangement is subject to a double layer of exploitation of foreign states and elites on top of a national state and elite, is again largely unaware of all this and fails to identify it as one important cause of its own prolonged economic dependency and relative stagnation vis-à-vis the dominant nation.

This first step, however, does not provide a perfect solution. The international monetary system is characterized by a dominant paper currency and a multitude of national paper monies pyramiding on top of it, and by freely fluctuating exchange rates between such currencies. On the one hand, this is less than satisfactory for the dominant state, because under these circumstances ample room is left for the possibility of its own currency depreciating against others, and such a development would pose a threat to its own role as a dominant power. For exchange rates are not exclusively determined by the inflationary policies of various central banks. Ultimately, and *ceteris paribus*, they are determined by purchasing power parity.[30] And even if a dominated central bank willingly inflates along with the dominating central bank, other factors (such as a lower level of taxation and/or regulation, for instance) can still make its currency appreciate against that of the dominant state.

On the other hand, the existence of a multitude of currencies freely fluctuating against each other is, as explained earlier, dysfunctional of the very purpose of money. It is a system of partial barter. It creates informational chaos, makes rational economic calculation impossible, and accordingly leads to inefficiencies within the very system of production on which the dominant state parasitically rests.

Thus, in order to assure its dominant position and maximize its exploitatively appropriated income, in a second step a dominant state will invariably try to institute an international—and ultimately universal—currency monopolistically controlled and issued either directly by its own central bank or indirectly by an international or world bank dominated by its central bank.

There are some obstacles on the way to this goal. Once the first step has been completed successfully, none of them would seem insurmountable, however. Naturally, the dominated state would lose some discretionary power under this arrangement. But this would be compensated for by the fact that its own economy would function more efficiently, too, if calculational chaos in international trade were reduced. Further, the banking

and business elite in both countries would be adamantly in favor of such a monetary regime and would use their close ties to their respective state and international connections to promote its adoption. For, after all, banks and industrial firms are also in the business of making money through production and exchanges. Freely fluctuating exchange rates are an artificial impediment in their pursuit of this economic interest. And they will be perceived as dysfunctional more intensively by larger businesses, because it is big business, in particular, for which foreign trade plays a more important role.

In fact, the most severe resistance to the adoption of an international currency is to be expected not from the states and the economic elites, but from the general public. Since an international currency implies giving up an accustomed one, it runs against the very nationalism that all states eagerly bred for so long. This would be a problem especially if the public in the dominated countries were asked to adopt the dominant state's currency directly—name and all—because the underlying imperialist nature of such a monetary system would then become dangerously apparent. Yet with some degree of diplomacy and patient propaganda, this problem seems solvable, too. A new currency must be created, with a new name, defined in terms of existing national monies in order not to arouse nationalistic or anti-imperialist sentiments; and this new currency must only be somewhat overvalued against the various national monies (which in turn are defined in terms of the new currency) in order to drive all national monies—in accordance with Gresham's law—out of circulation.[31] This must be accompanied by the states' and the economic elites' constant appeal to the general public's sound economic intuition that—regardless of all nationalistic feelings—freely fluctuating national monies are an anachronistic institution which cripples rational economic calculation, and that it is in everyone's best interest to have an internationally (and if possible universally) used money such as the international banking system under the leadership of the dominant state's central bank is willing to provide. Barring any drastic change in public opinion in the direction of a strengthened private property and sound money orientation and a correspondingly increased anti-state vigilance, nothing will prevent the dominant state from achieving this complete international counterfeiting autonomy. And with a world money and world bank in place, and controlled by the dominant state's central bank, a decisive step is taken toward reaching its ultimate goal of establishing itself as a full-

scale world government, with world-wide control not only over counterfeiting, but also over taxation and legal regulation.

In light of this explanation of monetary imperialism and its function as a "natural" (from a statist viewpoint, that is) complement of military expansionism, the remaining pieces from the history of international politics fall into place. Hand in hand with the rise of Great Britain to the rank of the foremost imperialist nation state went a sterling imperialism. Not entirely free at the time of all internal obstacles in the way of counterfeiting, British-dominated countries were compelled to keep their reserves in the form of sterling balances in London, where the Bank of England would redeem them in gold. This way, these countries would pyramid their national currencies on top of the pound, and Britain could inflate sterling notes on top of gold without having to fear an outflow of gold. With Britain's decline and the concurrent rise of the United States government to the position of the world's leading military power, sterling imperialism has gradually been replaced by a dollar imperialism. At the end of World War II, with United States domination extended over most of the globe, and essentially ratified in the Bretton Woods agreement, the dollar became the world reserve currency on top of which all other states have inflated their various national paper monies.[32] For a while, the U.S. officially still maintained the pretense of redeeming foreign central banks' dollars in gold, and this somewhat limited its own inflationary potential. However, it did not prevent steady dollar counterfeiting on top of gold from occurring. The position of the United States as a militarily dominant international power (formalized through a number of military pacts, most notably NATO) allowed it to compel foreign governments to exercise their right to ask for redemption only sparingly if at all, so that its own dollar inflation could take place without setting off contractive consequences. And when its counterfeiting policy had incited foreign governments to become all too daring in their attempts to obtain gold at bargain prices, it was the United States government's superior military might that finally allowed it to give up all pretense and declare its notes irredeemable. Since then the Federal Reserve System has acquired the position of an autonomous counterfeiter of last resort to the entire international banking system.[33]

The imperialist nature of this dollar standard takes effect in particular through such instruments as the International Monetary Fund (IMF), the International Bank for Reconstruction

and Development (IBRD), and the Bank for International Settlement (BIS).[34] Money and credit, created by the stroke of a pen, is passed from these United States-dominated institutions first to foreign governments which inflate their national currencies on top of it and in turn pass this money on to their own cartelized banking system which, adding a further dose of counterfeiting, then hand it on to the various states' favorite business establishments from whence it ripples to the economic periphery. Parallel to this flow of money goes a reversed process of income and wealth redistribution from the periphery onto national business and banking elites and the various nation states as well as from the dominated territories to the United States government and the United States banking and business establishment as the ultimate center of world finance.

From a sociological point of view, the consequences are particularly interesting if these two integrated processes are superimposed on pre-modern, feudal societies. Such countries, primarily in Africa, Asia, Central and South America, are typically characterized by a class of feudal landlords, or feudal landlords-turned-financial-or-industrial-magnates controlling the state apparatus and mostly residing in the capital-city-and-seat-of-government; and by a class of largely landless, dependent peasants dispersed over the countryside and sustaining the state, the feudal elite, and the capital city through the payment of land rents.[35] Dollar imperialism here means upholding feudal rule, supporting and participating in the exploitation of an impoverished peasantry and the countryside by a parasitic feudal caste and the capital city, and contributing in the latter's suppression of any liberationist land reform movement. In fact, the typical Third World cycle of ruthless government oppression, revolutionary movements, civil war, renewed suppression, and prolonged economic dependency and mass poverty is to a significant extent caused and maintained by the United States-dominated international monetary system.

Since 1971, in particular, increased efforts have been undertaken in the direction of the second step in the process of monetary expansionism. Not all of the roughly 160 freely fluctuating currencies actually pose a problem, because most of them are in no danger, for internal reasons, of appreciating against the dollar and thereby strengthening the respective states' power vis-à-vis that of the United States government, or they play such a minor role in international trade that the calculational chaos which is introduced by their existence is

largely insignificant. However, because of the relative strength of their currencies and their important role in international trade, the major West European states as well as Japan are a problem. Hence it is to these states and currencies in particular that United States-led attempts to create a world currency that helps rationalize economic calculation and at the same time safeguard United States domination and further increase its own inflationary powers have been directed. The creation of Special Drawing Rights (SDR's), defined initially in terms of 16 and later five leading export nations, and issued by the IMF, was a move toward a one-world currency and a one-world bank under United States domination.[36] Another important push toward this goal was provided through the activities of the Trilateral Commission (TC), founded in 1973 as an off-shoot of David Rockefeller's Council on Foreign Relations. Composed of some 300 highly influential politicians, bankers, businessmen, as well as intellectuals and journalists from North America, Western Europe and Japan, the Trilateral Commission has made the establishment of a world paper currency and a world central bank its primary concern.[37] Fervently supported by the Trilateral Commission as an intermediate step toward this ultimate goal as well as by several other politician-banker-industrialist associations with a substantial overlap of membership with the Trilateral Commission and devoted to the same ends, such as the Action Committee for Europe, the Association for the Monetary Union of Europe, the Banking Federation of the European Community, the ECU Banking Association, the Basel Committee and the Wilton Park Group, great advances have been made in aligning the European monetary front. In 1979, the newly created European Currency Unit (ECU), issued under the aegis of the European Economic Community, first appeared. Defined as a weighted average of 10 European currencies, and assisted by organizations such as the European Monetary System, the European Investment Bank, the Society for Worldwide Interbank Financial Telecommunications, and the European Monetary Cooperation Fund, the ECU has assumed a more and more important role. Since as an average it is less volatile than the various national currencies, multinational banks and corporations in particular have found it increasingly attractive to use the ECU as a unit of account and a medium of settlement: economic calculation is less haphazard with only three currencies—the ECU, the yen, and the dollar—than with a dozen. According to official intergovernmental agreements, by

1992 a European Central Bank—most likely as an off-shoot of the present European Monetary Cooperation Fund—is supposed to be established, and the ECU will become the all-European currency supplanting all national monies.[38]

With the European calculational chaos solved, then, and in particular with the European hard currency countries neutralized and weakened within a cartel that by its very nature favors more against less inflationary countries so as to protect and prolong United States hegemony over Europe, little indeed would remain to be done. With essentially only three central banks and currencies and United States dominance over Europe and Japan, the most likely candidates to be chosen as a United States-dominated World Central Bank are the IMF or the BIS; and under its aegis then, initially defined as a basket of the dollar, the ECU, and the yen, the "phoenix" (or whatever else its name may be) will rise as a one-world paper currency—unless, that is, public opinion as the only constraint on government growth undergoes a substantial change and the public begins to understand the lessons explained in this paper: that economic rationality as well as justice and morality demand a worldwide gold standard and free, 100 percent reserve banking as well as free markets worldwide; and that world government, a world central bank and a world paper currency—contrary to the deceptive impression of representing universal values—actually means the universalization and intensification of exploitation, counterfeiting-fraud and economic destruction.[39]

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[1] On the free-market development of money, see Carl Menger, *Principles of Economics* (New York: New York University Press, 1976), pp. 257–85; "Geld" in Carl Menger, *Gesammelte Werke*, vol. 4 (Tubingen: Mohr, 1970).

[2] On the gold standard, see *The Gold Standard, An Austrian Perspective*, Llewellyn H. Rockwell, Jr., ed. (Lexington, Mass.: D. C. Heath, 1985); and Ron Paul and Lewis Lehrman, *The Case for Gold* (San Francisco: Cato Institute, 1983).

[3] On banking and in particular the different functions of

loan and deposit banking, see Murray N. Rothbard, *The Mystery of Banking* (New York: Richardson and Snyder, 1983).

[4] See Murray N. Rothbard, *The Case for a 100 Percent Gold Dollar* (Meriden, Conn.: Cobden Press, 1984), pp. 32–34.

[5] A highly prominent example for this misconception is Friedrich A. Hayek, *Denationalization of Money* (London: Institute of Economic Affairs, 1976); for a critique see Murray N. Rothbard, "Hayek's Denationalized Money," *Libertarian Forum* 15, nos. 5–6 (August 1981 and January 1982).

[6] On the counterfeiting process, see Rothbard, *The Mystery of Banking*, chap. 4; also Elgin Groseclose, *Money: The Human Conflict* (Norman: University of Oklahoma Press, 1934), pp. 178 and 273.

[7] On the Austrian business cycle theory, see Ludwig von Mises, *Theory of Money and Credit* (Irvington, N.Y.: Foundation for Economic Education, 1971); Mises, *Human Action*, chap. 20 (Chicago: Henry Regnery, 1966); Friedrich A. Hayek, *Monetary Theory and the Trade Cycle* (New York: Augustus M. Kelley, 1975); Hayek, *Prices and Production* (New York: Augustus M. Kelley, 1967); Richard v. Strigl, *Kapital und Produktion* (Wien: J. Springer Verlag, 1934); Murray N. Rothbard, *Man, Economy and State*, vol. 2, chap. 12 (Los Angeles: Nash, 1970), pp. 832–49.

[8] What about cartels? Could not the competing banks form a cartel and agree on a joint venture in counterfeiting? Again, under free banking this is most unlikely, because a system of free banking is characterized by the complete absence of any economic incentive for cartelization. With no restrictions of entry in existence, any such bank cartel would have to be classified as voluntary and would suffer from the same problems as any voluntary cartel. Faced with the threat of non-cartelists and/or new entrants, and recognizing that like all cartel agreements, a banking cartel would favor the less efficient cartel members at the expense of the more efficient ones, there is simply no economic basis for successful action, and any attempt to cartelize would quickly break down as economically inefficient. Moreover, insofar as the counterfeit money would be employed to expand credit, banks acting in concert would set off a full scale boom-bust cycle. This, too, would deter cartelization. See on the theory of free banking, Mises, *Human Action*, pp. 434–48; Rothbard, *The Mystery of Banking*, chap. 8.

[9] Contrary to the claim of the public choice school, states and private firms are not doing essentially the same sort of business, but instead are engaged in categorically different types

of operations. Both types of institutions are the outcome of different, antagonistic interests. The "political" interest in exploitation and expropriation underlying the formation of states obviously requires and presupposes the existence of wealth, and hence an "economic" interest of at least one person in producing such wealth in the first place (while the reverse is not true). But at the same time the more pronounced and successful political interests are the more destructive of economic interests this will be. The public choice school is perfectly correct in pointing out that everyone—a government employee no less than an employee of an economic firm—normally prefers a higher to a lower income and that this interest explains why government should be expected to have no less of a tendency to grow than any other enterprise. However, this discovery—that politicians and bureaucrats are no more altruistic or concerned about the "public good" than are people in other walks of life—is hardly new even if it has sometimes been overlooked. Yet what *is* in fact new with public choice—the inference drawn from this correct insight then, that all institutions should hence be regarded as an outgrowth of identical motivational forces and be treated analytically on a par with each other—is false. Regardless of a person's subjective beliefs, integrating one's actions into the institutional framework of either the state or a "normal" economic enterprise and pursuing one's wealth maximizing interests here or there will in fact produce categorically different outcomes. On a representative statement of the public choice school regarding the idea of the "state as a firm," and of "political exchange" as essentially the same as "economic exchange," see James Buchanan and Gordon Tullock, *The Calculus of Consent* (Ann Arbor: University of Michigan Press, 1965), p. 19; for a critique of this view and the fundamental difference between economic and political means, see Franz Oppenheimer, *The State* (New York: Vanguard Press, 1914), pp. 24–27; Murray N. Rothbard, *Power and Market* (Kansas City, Kans.: Sheed Andrews and McMeel, 1977), chap. 2.

[10] On the following theory of the state, see Murray N. Rothbard, *For a New Liberty* (New York: Macmillan, 1978); Rothbard, *The Ethics of Liberty* (Atlantic Highlands, N.J.: Humanities Press, 1982); Hans-Hermann Hoppe, *Eigentum, Anarchie und Staat* (Opladen: Westdeutscher Verlag, 1987); Hoppe, *Theory of Socialism and Capitalism* (Boston: Kluwer Academic Publishers, 1988); Anthony de Jasay, *The State* (Oxford: Basil Blackwell, 1985).

[11] On the semantic confusion spread through the term "conceptual agreement" in particular by James Buchanan, see Hans-Hermann Hoppe, "The Fallacies of the Public Goods Theory and the Production of Security," *Journal of Libertarian Studies* 9, no. 1 (Winter 1989): 27–46.

[12] See Hoppe, *Eigentum, Anarchie und Staat*, chap. 5.3; Hoppe, *Theory of Socialism and Capitalism*, chap. 8.

[13] On democratization as a means of expanding state power, see Bertrand de Jouvenel, *On Power* (New York: Viking Press, 1949), pp. 9–10.

[14] On the state's inherent tendency toward achieving an unrestricted counterfeiting monopoly, see Rothbard, *The Mystery of Banking*; Murray N. Rothbard, *What Has Government Done to Our Money* (San Rafael, Calif.: Libertarian Publishers, 1985).

[15] On the impossibility of money originating as a fiat paper money, see the regression theorem: Mises, *Theory of Money and Credit*, pp. 97–123; Mises, *Human Action*, pp. 408–10; Rothbard, *Man, Economy and State*, vol. 1, pp. 231–37.

[16] On the enthusiastic participation of the banking elite in the creation of the Federal Reserve System, see Rothbard, *Mystery of Banking*, chaps. 15 and 16.

[17] On the formation of the state-banking-business coalition, see Gabriel Kolko, *The Triumph of Conservatism* (Chicago: Free Press, 1967); Kolko, *Railroads and Regulations* (Princeton: Princeton University Press, 1965); James Weinstein, *The Corporate Ideal in the Liberal State* (Boston: Beacon Press, 1968); Ronald Radosh and Murray N. Rothbard, eds., *A New History of Leviathan* (New York: Dutton, 1972).

[18] In the Marxist tradition this stage of social development is termed "monopoly capitalism," "finance capitalism" or "state monopoly capitalism." The descriptive part of Marxist analyses is generally valuable. In unearthing the close personal and financial links between state and business, they usually paint a much more realistic picture of the present economic order than do the mostly starry-eyed "bourgeois" economists. Analytically, however, they get almost everything wrong and turn the truth upside down.

The traditional, correct pre-Marxist view on exploitation was that of radical laissez-faire liberalism as espoused by, for instance, Charles Comte and Charles Dunoyer. According to them, antagonistic interests do not exist between capitalists, as owners of factors of production, and laborers, but between, on the one hand, the producers in society, i.e., homesteaders, producers and contractors, including businessmen *as well as*

workers, and on the other hand, those who acquire wealth non-productively and/or non-contractually, i.e., the state and state-privileged groups, such as feudal landlords. This distinction was first confused by Saint-Simon, who had at some time been influenced by Comte and Dunoyer, and who classified market businessmen along with feudal lords and other state-privileged groups as exploiters. Marx took up this confusion from Saint-Simon and compounded it by making only capitalists exploiters and all workers exploited, justifying this view through a Ricardian labor theory of value and his theory of surplus value. Essentially, this view on exploitation has remained typical for Marxism to this day—despite Böhm-Bawerk's smashing refutation of Marx's exploitation theory and his explanation of the difference between factor prices and output prices through time preference (interest). To this day, whenever Marxist theorists talk about the exploitative character of monopoly capitalism, they see the root cause of this in the continued existence of the private ownership of the means of production. Even if they admit a certain degree of independence of the state apparatus from the class of monopoly capitalists (as in the version of "state monopoly capitalism"), for them it is not the state that makes capitalist exploitation possible; rather it is the fact that the state is an agency of capitalism, an organization that transforms the narrow-minded interests of individual capitalists into the interest of an ideal universal capitalist (the "ideelle Gesamtkapitalist"), which explains the existence of exploitation.

In fact, as explained, the truth is precisely the opposite: It is the state that by its very nature is an exploitative organization, and capitalists can engage in exploitation only insofar as they stop being capitalists and instead join forces with the state. Rather than speaking of state monopoly capitalism, then, it would be more appropriate to call the present system "state financed monopoly socialism," or "bourgeois socialism."

For representative Marxist studies, see Rudolf Hilferding, *Finance Capital* (London: Routledge and Kegan Paul, 1981); V. I. Lenin, *Imperialism: Last Stage of Capitalism* (Moscow: Foreign Languages Publishing House, 1947); Paul M. Sweezy, *The Theory of Capitalist Development* (New York: Monthly Review Press, 1942); P. A. Baran and Paul M. Sweezy, *Monopoly Capital* (New York: Monthly Review Press, 1966); E. Mandel, *Marxist Economic Theory* (London: Merlin, 1962); Mandel, *Late Capitalism* (London: New Left Books, 1975); H. Meissner, ed. *Buergerliche Ökonomie ohne Perspektive* ([East] Berlin: Dietz, 1976). On the perversion of

the classical liberal class analysis through Marxism, see Murray N. Rothbard, "Left and Right" in *Egalitarianism As a Revolt Against Nature and Other Essays* (Washington, D.C.: Libertarian Review Press, 1974); on the refutation of the Marxist theory of exploitation, see Eugen von Böhm-Bawerk, *Karl Marx and the Close of His System*, Paul M. Sweezy, ed. (New York: Augustus M. Kelley, 1948).

[19] To recognize the far-reaching integration of state interests and those of the economic power elite, which is brought about by the monopolization of money and banking, is not to say that there cannot be conflicts arising within this coalition. As mentioned earlier, the state is also characterized, for instance, by the necessity of democratizing its constitution. And the democratic process could well bring egalitarian or populist sentiments to the surface which were opposed to the state's favorable treatment of banks and big business. However, it is precisely the financial nature of the state-business connection that makes such an occurrence unlikely. For not only would this pose an immediate threat to the economic power elite; it would also imply severe financial losses in state income, even if it did not threaten the stability of the state as such. Hence a powerful incentive exists for both sides to join forces in filtering any such sentiment out of the political process before it ever becomes widely heard and to ensure with all resources at their command that the range of political alternatives admitted to public discussion is so restricted as to systematically exclude any scrutinizing of their joint counterfeiting racket.

See on this also such—in spite of their characteristic leftist misconceptions—informative studies as C. W. Mills, *The Power Elite* (New York: 1965); W. Domhoff, *Who Rules America?* (New York: 1967); E. Schattschneider, *The Semi-Sovereign People* (New York: 1960); Bachrach and Baratz, *Power and Poverty* (New York: 1970); C. Offe, *Strukturprobleme des kapitalistischen Staates* (Frankfurt am Main: Suhrkamp, 1972).

[20] On the intimate relationship between state and war, see the important study by E. Krippendorff, *Staat und Krieg* (Frankfurt am Main: Suhrkamp, 1985); also Charles Tilly, "War Making and State Making as Organized Crime," in P. Evans et al., *Bringing the State Back In* (Cambridge: Cambridge University Press, 1985); Robert Higgs, *Crisis and Leviathan* (New York: Oxford University Press, 1987).

[21] The term "liberal" is here and in the following used in its traditional European sense and *not* in the present day U. S.

sense as a synonym for “socialist” or “social-democratic!”

[22] A highly characteristic example of this connection between a policy of internal deregulation and increased external aggressiveness is provided by the previous Reagan administration.

[23] On the following see also Hans-Hermann Hoppe, “The Economics and Sociology of Taxation,” in *Taxation: An Austrian View*, Llewellyn H. Rockwell, Jr., ed. (Auburn, Ala.: The Ludwig von Mises Institute, forthcoming).

[24] On the importance of “political anarchy” for the origin of capitalism, see J. Baechler, *The Origins of Capitalism* (New York: St. Martin’s Press, 1976), chap. 7.

[25] On British imperialism, see L. E. Davis and R. A. Huttenback, *Mammon and the Pursuit of Empire: The Political Economy of British Imperialism 1860–1912* (Cambridge: Cambridge University Press, 1986).

[26] See on this and the following Krippendorff, *Staat und Krieg*, pp. 97–116.

[27] See the table in E. Krippendorff, *Die amerikanische Strategie* (Frankfurt am Main: Suhrkamp, 1970), pp. 43ff.

[28] On twentieth-century U. S. foreign policy, see Leonard P. Liggio, “American Foreign Policy and National Security Management” in Radosh and Rothbard, *A New History of Leviathan*; Rothbard, *For a New Liberty*, chap. 14.

[29] See on this Rothbard, *Mystery of Banking*, pp. 230–47; on the role of the Morgans in pushing the Wilson administration into war, in particular see Charles Tansill, *America Goes to War* (Boston: Little, Brown and Co., 1938), chaps. 2–4.

[30] On the purchasing power parity theorem, see Mises, *Human Action*, pp. 452–58; Rothbard, *Man, Economy, and State*, pp. 715–22.

[31] On Gresham’s law see Mises, *Theory of Money and Credit*, pp. 75 and 77; Mises, *Human Action*, pp. 781–83; Rothbard, *Power and Market*, pp. 29–31.

[32] On the dollar standard established with the Bretton Woods system, see Henry Hazlitt, *From Bretton Woods to World Inflation* (Chicago: Henry Regnery, 1984).

[33] Since 1971, at which time the gold standard was finally suspended, more money has been created than had previously been accumulated by all nations throughout history.

[34] On the imperialist nature of these institutions, see also Gabriel Kolko, *The Politics of War, the World and United States Foreign Policy 1943–1945* (New York: Random House, 1968), pp.

242–340.

[35] See Paul A. Baran, *Political Economy of Growth* (New York: Monthly Review Press, 1957), chaps. 5–6.

[36] See Henry Hazlitt, *From Bretton Woods to World Inflation*.

[37] A sample of prominent U. S. members of the Trilateral Commission includes David M. Abshire, counselor to the President; Frank C. Carlucci, former national security advisor; J. C. Whitehead, Deputy Secretary of State; Alan Greenspan, Chairman of the Federal Reserve System; Winston Lord, Ambassador to China; George Bush, President; Paul A. Volcker, former Chairman of the Federal Reserve System; Alexander Haig, former Secretary of State; Jeanne Kirkpatrick, former Ambassador to the United Nations; David Stockman, former head of OMB; Caspar Weinberger, former Secretary of Defense; W. Michael Blumenthal, former Secretary of the Treasury; Zbigniew Brzezinski, former national security advisor; Harold Brown, former Secretary of Defense; James E. (Jimmy) Carter, former President; Richard N. Cooper, former Undersecretary of State for Economic and Monetary Affairs; Walter Mondale, former Vice-President; Anthony M. Solomon, former Undersecretary of the Treasury for Monetary Affairs; Cyrus Vance, former Secretary of State; Andrew Young, former Ambassador to the United Nations; Lane E. Kirkland, head of AFL-CIO; Flora Lewis, *New York Times*; Thomas Johnson, *Los Angeles Times*; George Will, ABC television and Newsweek.

[38] See on this also Jeffrey A. Tucker, “The Contributions of Menger and Mises to the Foundations of Austrian Monetary Theory Together With One Modern Application” (Paper presented at the 13th annual conference of the Association for Private Enterprise Education, Cleveland, Ohio, 1988); and Ron Paul, “The Coming World Monetary Order” (A Special Report from the *Ron Paul Investment Letter*, 1988).

Prominent Europeans explicitly supporting the idea of a European Central Bank, the ECU, and finally a one-world currency include: G. Agnelli, Chairman of FIAT (TC); J. Deflassieux, Chairman of the BIS (TC); G. FitzGerald, former Prime Minister of Ireland (TC); L. Solana, President of Compania Telefonica Nacional de Espana (TC); G. Thorn, President of the European Community and former Prime Minister of Luxembourg (TC); N. Thygesen, Professor of Economics, Copenhagen University (TC); U. Agnelli, Vice-President FIAT; E. Balladour, Financial Minister of France; N. Brady, Vice-President FIAT; E.

Balladour, Financial Minister of France; N. Brady, Dillon Read Investments; J. Callaghan, former Prime Minister of Britain; K. Carstens, former President of West Germany; P. Coffey, Professor of Economics, University of Amsterdam; E. Davignon, former European Commissioner; J. Delors, former President of the European Community; W. Dusenberg, president of BIS; L. Fabius, former Prime Minister of France; J. R. Fourtou, President of Rhone-Poulenc; R. d. La Jemere, former Governor of the Banque de France; V. Giscard d' Estaing, former President of France; Ch. Goodhart, Professor of Banking, London School of Economics; P. Guimbretiere, Director of the European Community's ECU project; W. Guth, President of the Deutsche Bank; E. Heath, former British Prime Minister; M. Kohnstamm, former President of European University Institute, Florence; N. Lawson, British Chancellor of the Exchequer; J. M. Leveque, President of Credit Lyonnais; L. Lucchini, President of Confindustria, Italy; F. Maude, British Minister for Corporate and Consumer Affairs; P. Mentre, Chairman of Credit National, France; H. L. Merkle, Chairman of Bosch Gmbh, West Germany; F. Mitterand, President of France; J. Monet, founder of the European Community; F. X. Ortoli, President of Total Oil and former Commissioner of the European Community; D. Rambure, Credit Lyonnais; H. Schmidt, former Chancellor of West Germany and Editor of *Die ZEIT*; P. Sheehy, Chairman of BAT Industries; J. Solvay, Chairman of Solvay, Belgium; H. J. Vogel, Chairman of the German Social Democratic Party; J. Zijlstra, former President of the Nederlandse Bank.

[39] Jeffrey A. Tucker of the Ludwig von Mises Institute had an important influence on my understanding of the dynamics of the international monetary system—through frequent discussions as well as through granting me access to his own related research. Needless to say, all shortcomings are entirely my own.

National Goods Versus Public Goods: Defense, Disarmament, and Free Riders

Jeffrey Rogers Hummel*

Of all the functions of the State, the one generally considered essential above all others is national defense. According to the popular ideal, national defense is a service provided by the State to its citizens. This service entails protection from aggressors outside the State's jurisdiction, usually foreign States. The most sophisticated theoretical justification for State provision of this service is the public-goods argument. Economists have called many things public goods and then endlessly debated whether the label really applies, but national defense has remained the quintessential public good. Although rarely discussed in detail, it is universally invoked as the classic representative of the public-goods category.[1]

As the public-goods argument has been refined by economists, two characteristics distinguish a pure public good from a private good. The first is *non-rival consumption*. One customer's consumption of a marginal unit of the good or service does not preclude another's consumption of the same unit. For example, in an uncrowded theater, two patrons' enjoyment of the same movie is non-rival. The second characteristic is *non-excludability*. The good or service cannot be provided to an individual customer without simultaneously providing it to others. The owner of a dam, for example, cannot provide flood control separately to the individual farmers residing downstream.[2]

Although these two characteristics frequently come in conjunction with each other, they do not necessarily have to. The non-excludability from the dam's flood-control services is accompanied by non-rival consumption of the services among the various farmers, but the owner of a nearly empty theater can still exclude additional patrons. Yet, according to the public-goods argument, either characteristic alone causes "market failure"—that is, an allocation of resources that is less than Pareto optimal. Thus, either can be sufficient to justify State intervention.

Much of the literature on public goods has conceded that, strictly speaking, very few actual goods or services exhibit either of these characteristics in their polar form. Instead, in the real world, we encounter a range of goods and services, for which the potential capacity and quality of non-rival consumption is increasing or for which the costs of exclusion are increasing.[3] Indeed, some economists have gone so far as to suggest that these characteristics are almost never physically inherent in any good or service, but are rather nearly always a consequence of choosing one out of many feasible methods for producing the good or service.[4]

While I believe that this argument has much merit, I am not going to challenge the validity, realism, or relevance of the public-goods concept. On the contrary, I think that the core service within national defense captures the essence of a public good more fully than economists have ever appreciated. But this essential feature, rather than providing a solid justification for State provision of the service, offers one of the most powerful objections to such provision.

National defense as it is provided by the State certainly exhibits both public-good characteristics to a substantial extent. True, Americans in Alaska and Hawaii could very easily be excluded from the United States government's defense perimeter, and doing so might enhance the military value of at least United States conventional forces to Americans in the other 48 states. But in general, an additional ICBM in the United States arsenal, insofar as it truly protects one American, can simultaneously protect everyone else within the country without diminishing its protection. In that respect, consumption of national defense is non-rival. Moreover, a technique that defends just a single American from the Soviet State without necessarily defending his or her entire community and perhaps the entire nation is difficult to visualize. That makes national defense non-excludable as well.

I am going to focus, however, only upon non-excludability. If consumption of a service is non-rival, but businessmen and entrepreneurs can exclude those who do not pay for it, then they still have strong incentives to provide the service. The most serious "market failure" that is alleged to result is under-utilization of the service. Some people will be prevented from benefiting from the quantity of the service that has been produced, even though permitting them to do so costs nothing. Furthermore, even this imperfection will dissipate if the market permits discriminatory pricing.[5]

On the other hand, non-excludability creates opportunities for free riders, who will pay for the service only if doing so is absolutely necessary to receive it. From the perspective of economic self-interest, every potential customer has an incentive to try to be a free rider. If enough of them act on this incentive, the service will not be produced at all, or at least not in an optimal quantity.

Another way to think about non-excludability is as a positive externality in its purest form. Many goods and services generate additional benefits for people other than those who directly consume and pay for them. There is often no way for the producers of these goods to charge those who receive these external benefits. A non-excludable good or service is one where the positive externalities are not just an incidental by-product but rather constitute the major benefit of the good or service.[6]

Clearly, the justification for State provision of national defense does not stem from any major concern that protection services would be produced but under-utilized on the free market. Rather, it stems from the assumption that, unless taxation or some other coercive levy forces people to contribute, national defense would be inadequately funded and therefore under-produced. It is this widely held but rarely examined assumption that I wish to question.

I

Before I directly address the public-goods justification for State provision of national defense, we must clarify the meaning of the term "national defense." The public-goods justification rests upon a fundamental equivocation over exactly what service "national defense" entails.

When economists discuss national defense, the core service they usually have in mind, explicitly or implicitly, is protection of people's lives, property, and liberty from foreign aggressors. This also appears to be what people have in mind when they fear foreign conquest, particularly in the case of the American fear of Soviet conquest. People throughout the world apparently believe that their own government, no matter how disagreeable, defends them from foreign governments, which they think would be even more oppressive.

This defense of the people is not synonymous with another service that goes under the same "national defense" label: protection of the State itself and its territorial integrity.

Logically, there is no necessary relationship between the two. The defense of the people and the defense of the State are conceptually distinct. Imagine a society without a State. Whereas it would no longer have a State to protect, the people might still need some protection from foreign States.[7]

Historically, the State often embarks on military adventures unrelated to the defense of its subjects. If this were not the case, people would require no protection from foreign States in the first place. Many Americans still seriously doubt that the United States' bombing of North Vietnam and Cambodia had very much to do with protecting their liberty. One defense-budget analyst, Earl Ravenal, believes that nearly two-thirds of the United States government's military spending goes toward the defense of wealthy allied nations in Europe and Asia and has little value for the defense of Americans.[8]

The distinction between the two meanings of national defense does not only apply when the State engages in foreign conquest, aggression, or intervention. Even during unambiguously defensive wars, the State sacrifices the defense of its subjects to the defense of itself. Such universal war measures as conscription, heavy taxation, rigid economic regulation, and suppression of dissent aggress against the very citizens whom the State is presumably protecting. People believe the State defends their liberty; in fact, they end up surrendering their liberty to defend the State. This is the frequently overlooked cost of the State's protection captured so aptly in Randolph Bourne's famous observation: "War is the health of the State."[9]

Of course, people may be better off accepting the costs and risks of the State's protection in order to reduce the risks and costs of foreign conquest. I do not deny the possibility of an incidental relationship between the defense of the State and the defense of the people. But the next section will present theoretical reasons why this relationship is not as common nor as strong as generally supposed. Before doing that, I must fully expose the conceptual gulf between the two meanings of national defense.

Unfortunately, the pervasive doctrine of nationalism obscures this fundamental distinction. Nationalism treats nations as collective entities, applying principles drawn from the analysis of individual interaction to the international level. In a war between two nations, the nationalist model focuses on essentially two parties: nation *A* and nation *B*. As in fights between individuals, one of these two nations is the aggressor, whereas

the other is the defender. As a result, the model axiomatically equates protecting the State with protecting its subjects.

The basic flaw in the nationalist model is its collectivist premise. Although the model informs many of the formal economic analyses of international relations, it represents a glaring example of the fallacy of composition. Nations consist of two related but distinct elements: the State and its subjects. Democracies are sometimes referred to as "governments of the people," but this is, at best, rhetorical sloppiness. The State and the people interact, whether under democracies or other forms of government, in important ways that we shall soon explore, but this obvious fact should not confuse us about the inherent difference between a police officer and an ordinary citizen.

Consequently, any conflict between two nations involves not just two parties, but at least four: the State governing nation *A*, the State governing nation *B*, the people with the (mis)fortune to live under State *A*, and the people with the (mis)fortune to live under State *B*. Whatever the merits of a dispute between State *A* and *B*, the dispute need not involve a significant portion of people *A* or people *B*.[10]

Abandoning this collectivist identification of the State with its subjects exposes *the* critical insight about the national-defense service. If one is truly concerned about defense of peoples' lives, property, and liberty, then the transfer of their capital city from one location to another is not intrinsically significant. The territory constituting the United States is in a very real sense already conquered—by the United States government. All that is significant is whether transferring the capital city brings the citizens a net loss or gain. The danger is not foreign conquest per se, but the amount of power the conquering State can successfully wield.

In the final analysis, protection from foreign States is not a discrete or unique service. It is a subset of a more general service: protection from *any* State. Whether we formally label an oppressive State "foreign" or "domestic" becomes a secondary consideration. Although States differ enormously in the amount of domestic power they exercise, they all share certain characteristics. These shared characteristics are more than definitional, and as I hope to show, fatally undermine the public-goods justification for State-provided defense.

Admittedly, the distinction between the two services that go under the name "national defense" has not so far been grounded entirely in an empirical examination of people's subjective

preferences. How can we as economists or historians question the prevailing nationalism, when people do in fact put a high value on the preservation and glorification of their own State? If the service that people desire is protection of the State per se, the State is undoubtedly the best institution for the job.

I do not question the efficacy of the State in providing its own protection. However, my impression is that most people view the State as a production good, a means to other ends, rather than as a pure consumption good, something they value in and of itself. The State does not directly enter their utility functions; instead, people want their government to be powerful relative to other governments basically because they believe that this helps to protect them from foreign States.

If my impression is correct, nationalism becomes something other than a mere subjective preference. It becomes a positive social theory, as legitimately subject to criticism for its policy recommendations as socialism. There is no refuting the socialist who favors central planning for its own sake; but most socialists favor central planning because of positive (and in my opinion, mistaken) theories about its consequences.[11]

History tentatively reinforces the impression that nationalism rests upon a positive social theory. Prior to the French Revolution, European subjects did not identify strongly with their rulers. Wars were major inconveniences to be avoided if possible while they were going on, but the masses were largely indifferent if the outcome was a change of rulers. Indeed, soldiers and civilians would often enter the service of foreign rulers without being aware that they were doing anything unusual. The spread of modern nationalism coincided with the spread of the novel idea that governments should in some manner benefit their subjects.[12]

In any case, an examination of people's subjective preferences would reveal which service or mix of services people desire when they demand national defense.[13] A definitive answer is hampered by national defense's tax funding, which prevents people from revealing their preferences directly and unambiguously. An examination of whether the State is a good institution for protecting people's lives, property, and liberty, assuming that is what they prefer, is equally legitimate. I am willing to accept the prospect that people may still worship the State, even after discovering that it gives them no real protection.

II

When Paul Samuelson first formalized public-goods theory, it was at a time when many economists unreflectively subscribed to what Harold Demsetz has called the nirvana approach to public theory. Demonstrating some "market failure" with respect to an abstract optimum was considered sufficient to justify State action. Economists assumed that the costless, all-knowing, and benevolent State could simply and easily correct any failure.

Since then, economists have become far more realistic. Public-goods theory has advanced to the point where it is now an exercise in comparative institutions. Demonstrating "market failure" is no longer sufficient. One must compare the market with the State, not as one wishes the State would behave in some ideal realm, but as it must behave in the real world. To justify State action, one must show that the State has the capacity and the incentive to do a better job than the market can do. Can the State provide the public good without costs that exceed the benefits? And is there some incentive structure that would conceivably insure that it do so?[14]

Economists within the field of public choice have done some of the most important work on the comparative capabilities of the State—by applying public-goods insights to political action itself. They have come to the realization that the free-rider incentive does not only arise for market enterprises. As Mancur Olson has demonstrated, the free-rider incentive can arise for any group, especially political groups wanting to influence State policy. This imparts an inherent public-goods character to all political decisions.[15]

Assume that one of us wishes to change some State policy that we personally find particularly onerous—for instance, repeal a tax. We are members of a fairly large group that will benefit if the tax is repealed. If enough of us contribute money, time, or other resources to bringing about the tax's repeal, we will succeed and all be better off. The money we save in taxes will more than reimburse us for our effort. Unfortunately, once the tax is repealed, even those who did not join our campaign will no longer have to pay it. We cannot exclude them from the benefits of the tax's repeal. They will be free riders on our political efforts.

Just as in the case of a non-excludable good in the market, every potential beneficiary of the tax repeal has an incentive, from the perspective of economic self-interest, to try to be a free

rider. If enough of them act according to this incentive, the tax will never be repealed. We can call this result a "political failure," completely analogous to the "market failure" caused by non-excludability.

Of course, this example grossly oversimplifies the problem. Under a democratic State, people do not directly purchase changes in State policy; they vote for them. Or even more precisely, some of them can vote for representatives who then can vote on and bargain over State policy. If the tax repeal example was completely accurate, nearly every intentional benefit provided by the State would be a pure private good, similar to the current salaries of politicians and bureaucrats. With voting, political entrepreneurs and vote-maximizing firms (which are called political parties) have some incentive to provide us with our tax repeal, even if we do not politically organize, in order to entice us to vote for them.[16]

This incentive, however, is not very great. First of all, voting itself, unless compulsory, is a public good. An individual must expend time and other resources to vote, but he or she can avoid these expenditures by free riding on the voting of others. Only in the very remote case where the voter anticipates that a single vote will decide the election's outcome does this incentive to free ride disappear. Consequently, the political entrepreneur must have some reason to expect that we will vote at all. And if we do in fact vote, he must in addition have some reason to expect that the tax repeal, among all the other competing issues, will affect how we vote. Our forming a political organization to repeal the tax gives him reason to believe both these things.[17]

In short, unorganized groups have some influence upon the policies of a democratic State. But other things being equal, groups which organize and campaign for policies have a significant advantage. That is presumably why they organize and campaign. It strains credulity to suppose that all the people who pour vast sums of money into political lobbying are utterly mistaken in the belief that they thereby gain some leverage on policy. The common observation that special interests have inordinate influence upon a democratic State is without doubt empirically well founded.

Two variables affect the likelihood that a group will overcome the free-rider problem and successfully organize. These variables operate whether the group is trying to attain non-excludable benefits on the market or from the State. The first is the size of the group. The smaller the group, *ceteris paribus*, the

more likely the members are to organize successfully. The larger the group, the more difficult it is to involve enough of them to secure the public good.

The second variable is the difference between the value of the public good to the members of the group and the cost to them. The greater this difference, *ceteris paribus*, the more likely they are to organize successfully. Indeed, if this difference is great enough, one single member might benefit enough to be willing to pay the entire cost and let all the other members of the group free ride. The smaller this difference, on the other hand, the more essential becomes the contribution of each potential member.[18]

In short, the democratic State makes it much easier to enact policies that funnel great benefits to small groups than to enact policies that shower small benefits on large groups. Because of this free-rider induced "political failure," the State has the same problem in providing non-excludable goods and services as the market—with one crucial difference. When a group successfully provides itself a public good through the market, the resources it expends pay directly for the good. In contrast, when a group successfully provides itself a public good through the State, the resources it expends only pay the overhead cost of influencing State policy. The State then finances the public good through taxation or some coercive substitute.

Moreover, the group that campaigned for the State-provided public good will *not* in all likelihood bear very much of the coerced cost of the good. Otherwise, they would have had no incentive to go through the State, because doing so then costs more in total than simply providing themselves the good voluntarily. Instead, the costs will be widely distributed among the poorly organized large group, who may not benefit at all from the public good.

This makes it possible for organized groups to get the State to provide bogus public goods, goods and services which in fact cost much more than the beneficiaries would be willing to pay even if exclusion were possible and they could not free ride. In this manner, the State generates externalities, and ones that are negative. Rather than overcoming the free-rider problem, the State benefits free loaders, who receive bogus public goods at the expense of the taxpayers. Provision of these goods and services moves the economy away from, not toward, Pareto optimality. When the bogusness of such public goods is obvious enough, economists call them transfers.[19]

What is the upshot of this "political failure" for national defense? In the case of defending the State itself, we are dealing quite clearly with a service that the State has enormous incentives to provide. If this is a non-excludable good or service at all, then it is a public good that benefits small groups very highly. But in the case of defending the people, we are talking about, in the words of David Friedman, "a public good . . . with a very large public." The benefits, although potentially great, are dispersed very broadly.[20]

Thus, to the extent that the free-rider obstacle inhibits market protection of liberty, it raises an even more difficult obstacle to the State over undertaking that vital service. The State has strong incentives to provide national defense that protects itself and its prerogatives, but it has very weak incentives to provide national defense that protects its subjects' lives, property, and liberty. We can now theoretically understand the common historical divergence between defending the State and defending the people.

Furthermore, there is a perverse inverse relationship between the people's belief that the State defends them and the reality. To the extent that they accept this nationalistic conclusion, their political resistance against the domestic State's aggression, however weak because of the existing public-goods problem, decreases further. This is most noticeable during periods of actual warfare. The belief reduces the amount of protection they enjoy, at least against the domestic State.

Nationalism thus results in an ironic and circular paradox. It views the State as a protection agency, but this very view contributes to the State's literal role as a protection racket. Those who decline to pay for the State's protection become the State's victims. This in turn gives the State an incentive to find or create foreign enemies, even when none really exist. For without a foreign threat, the justification for the State's protection becomes far less persuasive.[21]

My remarks have thus far been confined to the democratic State. They apply, however, even more strikingly to the undemocratic State, insofar as there is any significant difference between the political dynamics of the two types. For reasons that I will explain in the next section, I actually believe that many economists have over-emphasized the operative significance of formal voting. Both types of States are subject to the influence of groups that marshall resources in order to affect policy. Formal voting merely makes it possible for some changes to manifest

themselves faster and less painfully.

But let us for a moment accept the simplistic model of the undemocratic State. Assume that the State's policies are determined primarily by the whim of a single despot. If he is a benevolent despot, then the defense of his subjects might be high on his agenda. If he is a despot who inhabits the real world, he will be exclusively interested in defending his State and its territorial integrity.

My argument still does not completely rule out the possibility that the State might actually defend its subjects. Whereas the difference between the political dynamics of democratic and undemocratic States is overdrawn, States do differ markedly in the amount of aggression they commit against their own subjects. If we automatically assume that a conquering State can wield as much or more power over foreign populations as it does over its domestic subjects, then a relatively less oppressive State will, in the process of defending itself, provide some protection for its subjects. But this is at best an unintended positive externality.

III

To this point, our conclusions have been somewhat pessimistic, justifying Earl Brubaker's observation that the free-rider assumption *makes* economics a dismal science.[22] Based on that assumption, neither the market nor the State has much incentive to provide any direct protection of peoples' lives, property, and liberty. To the extent that historical accident has resulted in marked differences in the power of various States over their own subjects, some such protection might be produced as an unintended externality of the State's effort to protect its own territorial integrity. But that very effort at self-protection will also have a significant countervailing negative impact on the degree to which the State aggresses against its own subjects.

Attributing a difference to historical accident, however, is simply another way of saying that the difference is unexplained. Not until we explain the marked differences in domestic power of the world's States will we fully comprehend the relationship between protecting the State and protecting the people.

One naive explanation common among economists is the public-goods theory of the State. This theory rests upon a sharp dichotomy between two types of States, usually democratic and undemocratic. Undemocratic States according to this theory are

little better than criminal gangs, run by single despots or small groups of oligarchs for essentially their own personal ends. The subjects of these States suffer under their rulers but can do very little about their plight. Any effort on their part to change the situation, whether through violent revolution or other means, is a public good, caught in the free-rider trap.[23]

Democratic States, in contrast, are the result of social contracts. According to the public-goods theory of the State, people create democratic States to solve the free-rider problem. At some obscure time in the past, they drew up constitutional rules in which they agreed to be coerced in order to provide public goods for themselves. Over time, because the free-rider problem generates "political failure," democratic States have a tendency to fall under the influence of special interests. Perhaps better constitutional decision rules could alleviate this decay. Nonetheless, democratic States always retain vestiges of their public-goods origin. That is why they aggress against their own subjects far less than do undemocratic States.[24]

We do not have to turn to the readily accessible historical evidence to refute this naive theory about the origin of democratic States. The theory's proponents quite often do not literally believe it. Instead, they view the theory as merely explaining the conceptual nature rather than the concrete origin of the democratic State. Either way, however, the theory has an inner contradiction. Creating a democratic State of this nature is a public good itself. A very large group must in some manner have produced it. Because of the free-rider problem, they have no more incentive to do that than to revolt against an undemocratic State or to provide themselves any other non-excludable benefit.[25]

A more realistic alternative to the public-goods theory of the State is what we can call the social-consensus theory of the State. All States are legitimized monopolies on coercion. The crucial word is "legitimized." This legitimization is what differentiates States from mere criminal gangs. Any society in which people refrain from regularly killing each other enjoys some kind of social consensus. No government rules through brute force alone, no matter how undemocratic. Enough of its subjects must accept it as necessary or desirable for its rule to be widely enforced and observed. But the very consensus which legitimizes the State also binds it.[26]

The social consensus bears little resemblance to the mythical social contract of public-goods theory. Whereas the social

contract is generally conceived of as an *intentional* political agreement, agreed upon explicitly at some specific moment, the social consensus is an *unintended* societal institution, like language, evolving implicitly over time. Sometimes, the evolution of the social consensus can be very violent. Often, particular individuals or even fairly large groups will strongly disagree with certain features of their society's consensus. But at all times, members of society are socialized into the consensus in ways that they only dimly grasp, if at all.[27]

Consider a classroom of average American citizens. Ask for a show of hands on the following question: How many would pay their taxes in full if no penalties resulted from non-payment? Very few would raise their hands; probably only some masochists, ardent statists, and individuals who were not entirely honest. This shows that taxation is involuntary. Then ask the group a second question: How many think taxes are necessary or just? This time, nearly every hand would go up, except those of a few radical libertarians. This shows that taxation is legitimized.[28]

Of course, one of the reasons Americans generally view taxation as legitimate is because they think it is necessary in order to provide public goods. All this proves, however, is that, although the public-goods theory of the State is utterly worthless as an objective description of the State's origin or nature, it is very valuable as an ideological rationalization for the State's legitimization. It performs a function analogous to that performed by the divine right of kings under monarchical States or by Marxist dogma under communist States.

For unlike the public-goods theory of the State, the social-consensus theory applies universally to all States. It predicts that if you conducted the same survey about taxation upon a group of average Russians living within the Soviet Union, or a group of average Iranians living under the Ayatollah (and you could guarantee them complete immunity regardless of how they answered), you would get similar results. These foreign and "evil" undemocratic States are not exogenous and alien institutions imposed on their subjects by sheer terror. They are complex products of the culture, attitudes, preferences, and ideas, whether explicit or implicit, that prevail within their societies.[29]

The vast ideological and cultural differences among the peoples of the world are what explain the marked differences in the domestic power of their States. The consensual constraints

upon States differ in content, but all States face them. The Soviet leaders fully realize this, which is why they devote so many resources to domestic and foreign propaganda. The shifting social consensus also explains the many changes in the form and the power of the State over time. Although professional economists tend to ignore the ideological and cultural components of social dynamics, professional historians give these factors the bulk of their attention.

In the not-so-distant past, the world was entirely in the grip of undemocratic States, which permitted their subjects very little liberty. Democratic States evolved historically from undemocratic States. States that now must tolerate a large degree of liberty emerged from States that did not have to do so. Public-goods theory is in the awkward position of theoretically denying that this could have happened. It raises an across-the-board theoretical obstacle to every conceivable reduction in State power that benefits more than a small group of individuals.[30] The social-consensus theory, in contrast, attributes this slow progress, sometimes punctuated with violent revolutions and wars, to ideological changes within the social consensus.

Thus, history is littered with drastic changes in State power and policy that resulted from successful ideological surmounting of the free-rider obstacle. The Minutemen volunteers who fought at Concord Bridge could not even come close to charging all the beneficiaries of their action. They produced tremendous externalities from which Americans are still benefiting today. The abolitionist movement produced such a cascade of positive externalities that chattel slavery—a labor system that was one of the world's mainstays no less than two hundred years ago, and had been so for millennia—has been rooted out everywhere across the entire globe. I could multiply the examples endlessly.[31]

Indeed, the existence of any voluntary ethical behavior at all faces a free-rider obstacle. Society is much more prosperous if we all cease to steal and cheat, but the single individual is better off still if everyone else behaves ethically while he or she steals and cheats whenever able to get away with it. Thus, everyone has a powerful personal incentive to free ride on other people's ethical behavior. If we all succumbed to that incentive, society would be very unpleasant.

We must avoid the mistaken impression that the State's police forces and courts are what prevents most stealing and cheating. To begin with, the initial creation of such a police and

court system (at least under government auspices) is another public good. But far more important, the police and courts are only capable of handling the recalcitrant minority who refuse voluntarily to obey society's norms. A cursory glance at varying crime rates, over time and across locations, clearly indicates that the total stealing and cheating in society is far from solely a function of the resources devoted to the police and the courts. Certain neighborhoods are less safe, making an equal unit of police protection less effective, because they contain more aspiring ethical free riders. If all members of society or even a substantial fraction became ethical free riders, always stealing and cheating whenever they thought they could get away with it, the police and court system would collapse under the load.[32]

In short, every humanitarian crusade, every broad-based ideological movement, every widely practiced ethical system, religious and non-religious, is a defiant challenge hurled at the public-goods argument. The steady advance of the human race over the centuries becomes a succession of successful surmounting of the free-rider obstacle. Civilization itself would be totally impossible unless people had somehow solved the public-goods problem, *voluntarily*.[33]

IV

Obviously, there is some flaw in public-goods theory. Howard Margolis points out that "no society we know could function" if all its members actually behaved as the free-rider assumption predicts they will. He calls this theoretical failure free-rider "overkill."[34]

Despite this flaw, public-goods theory explains a great deal, which is why it remains so popular among economists. It explains why so many eligible voters do not waste their time going to the polls. But it fails to explain why so many of them still do go. (I think an interesting empirical study would be to determine what percentage of economists, who accept public-goods theory, violate their theoretical assumptions about human behavior by voting.) It explains why the progress of civilization has been so painfully slow. But it fails to explain why we observe any progress at all.

Before working out the implications of this theoretical flaw for national defense, let me digress briefly and try to identify it. It must involve some weakness in the theory's assumption about human behavior. I make no pretensions, however, about being

able fully to resolve the weakness. Because this very issue sits at the conjunction of public-goods theory and game theory, it has become one of the most fertile areas of inquiry within economics and political science over the last decade. All I do is modestly offer some tentative thoughts about the sources of the weakness.

Two possibilities suggest themselves. Either people do not consistently pursue the ends that the free-rider assumption predicts they will pursue, or they pursue those ends but using means inconsistent with the assumption. I will take up both of these possibilities in order:

1. *Do people consistently pursue their self-interest, as the free-rider assumption defines self-interest?* Public-goods theorists have offered, not one, but two motives that should cause a person to behave in accordance with the free-rider assumption. The obvious is narrow economic self-interest. This end does provide a sufficient reason to free ride, but visualizing someone choosing a different end is quite easy. Simple altruism is not the only alternative that will violate this narrow assumption. People may desire social improvements—liberty, justice, peace, etc.—not simply for their material benefits, but as ends in and of themselves, independently present within their utility functions. Patrick Henry may have been engaging in political hyperbole when he exclaimed "Give me liberty or give me death!", but he was still expressing a willingness to pay more for attaining liberty than its economic returns would cover. Perhaps this willingness should be called ideological altruism; no matter what we call it, it appears to be quite common in human history.[35]

Mancur Olson is the most prominent public-goods theorist to argue that a second motive beyond narrow economic self-interest justifies the free-rider assumption. And this second motive applies even to the individual with altruistic ends—*if* the group is large enough. He contends that only rationality in the pursuit of whatever end the individual chooses is strictly necessary. The individual will still choose to free ride, because for a public good requiring a large group his meager contribution will have no perceptible effect on attaining the end.[36]

I could object that an individual's contribution to a cause is often not contingent in any way upon the cause's overall success. Consequently, how much the individual thinks his action will affect the probability of success is often irrelevant. Some people refuse to litter, for instance, fully aware that their refusal will have no perceptible impact on the quantity of litter. Such individuals gain righteous satisfaction from doing what they

believe is proper, regardless of its macro-impact. In addition to a sense of righteousness, ideological movements can offer their participants a sense of solidarity, of companionship in a cause, that keeps many loyal no matter how hopeless the cause.[37]

But this objection concedes far too much to Olson. As philosopher Richard Tuck has cogently pointed out, Olson's notion of "rationality" if consistently obeyed precludes some everyday activities. It does not just apply to an individual's contribution to the effort of a large group; it applies just as forcefully to the cumulative actions of a single person on a large individual project. Olson's "rationality" is simply a modern variant of the ancient philosophical paradox of the Sorites. In one version, the paradox argues that there can never be a heap of stones. One stone does not constitute a heap, nor does the addition of one stone to something that is not already a heap. Therefore, no matter how many stones are added, they will never constitute a heap. (Interestingly enough, in the other direction, this paradox argues that there can never be anything but a heap of stones.)

One more word will not make a perceptible difference in the length of this paper. Because one word makes no difference, I would not have started in the first place if I had adhered to Olson's "rationality." One more dollar will not make a perceptible difference in a person's life savings. One day's exercise will not make a perceptible difference in a person's health. If the fact that the individual's imperceptible contribution goes toward a group rather than an individual effort is what is decisive, then we are simply back again at the motive of narrow self-interest. No doubt, this type of "rationality" does influence some people not to undertake some actions under some circumstances. But just how compelling people find it is demonstrated by the millions who vote in presidential elections, despite the near certainty that the outcome will never be decided by one person's vote.[38]

2. *Do people pursue their self-interest but in a manner inconsistent with the free-rider assumption?* Olson, again, has suggested one way that individuals might effectively organize despite the free-rider obstacle. Groups can link their efforts at achieving non-excludable benefits with excludable by-products. Such by-products include low group-rate insurance and professional journals. The incentive provided by these by-products helps counteract the incentive to be a free rider.[39]

The most intriguing aspect of the by-product theory is the

easy method it offers for providing national defense without a State. The purchase of national defense could be linked to some excludable by-product that everyone wants, such as protection insurance or contract enforcement. Indeed, most of those advocating voluntary funding of national defense have hit upon some such related scheme.[40]

Unfortunately, this solution is too easy. If the excludable by-product is really what people want, then a competitor who does not link it with the non-excludable good or service can sell it at a lower price. Only if the group has a legal monopoly on marketing its by-product can it really counteract the free-rider incentive. Every really successful example of groups relying upon by-products that Olson discusses involve some sort of legal monopoly. But the groups' initial attainment of this legal monopoly remains an unexplained surmounting of the public-goods problem.[41]

Far more promising than the by-product theory for explaining the empirical weakness of the free-rider assumption is some of the recent dynamic analysis being done in game theory. As many scholars have pointed out, the free-rider problem in public-goods theory is identical to the famous Prisoner's Dilemma in game theory.[42]

The Prisoner's Dilemma derives its name from an archetypal situation where two prisoners are being held for some crime. The prosecutor separately proposes the same deal to both prisoners, because he only has sufficient evidence to convict them of a minor crime with a light sentence. Each is told that if he confesses, but the other does not, he will get off free, while the other will suffer the full penalty, unless the other also confesses. If they both confess, they both will be convicted of the more serious crime, although they both will receive some small leniency for confessing. This deal gives each prisoner an incentive independently to confess, because by doing so he individually will be better off regardless of what the other does. Consequently, they both confess, despite the fact that they both collectively would have had much lighter sentences if they both refused to confess.

The public-goods problem is essentially a Prisoner's Dilemma with many prisoners. I cannot delve into the details here of the recent work, both theoretical and empirical, of such game theorists as Michael Taylor, Russell Hardin, and Robert Axelrod, but essentially they have explored the Prisoner's Dilemma within a dynamic rather than static setting. Their

conclusion: whereas in a static single Prisoner's Dilemma, cooperation is never rational; in dynamic iterated Prisoner's Dilemmas, with two or more people, cooperation frequently becomes rational for even the most narrowly self-interested individual. What this exciting work implies is that in many real-world dynamic contexts, ideological altruism or some similar motive beyond narrow self-interest may not be necessary at all to counterbalance the free-rider incentive.[43]

V

I now arrive finally at my conclusions respecting national defense. We have seen that putting domestic limitations upon the power of the State is a public-goods problem, but nonetheless one that in many historical instances for whatever reason has been solved. We have also seen that national defense, in the sense of protecting the people from a foreign State, is a subset of the general problem of protecting them from any State, domestic or foreign. Consequently, the factors that already provide protection from the domestic State are the very factors which on the market would provide protection from foreign States. To put it concretely, the same social consensus that has voluntarily overcome the free-rider obstacle to protect the United States, one of the most free, if not the most free, nation in the world would voluntarily overcome the free-rider obstacle to protect American freedom from foreign States.

The policy implication of this analysis is, to say the least, very far-reaching. Rather than justifying State provided protection, the fact that national defense is a genuine public good offers a powerful argument for unilaterally disarming the State.[44] In current American political discourse, unilateral disarmament has become an emotion-laden term. Radical opponents of current United States military policy are often tainted with the term, although almost none of them actually dare to take that position. So let me be specific about what I mean by unilateral disarmament.[45]

By "disarmament," I mean disarmament of the State. Prior to this point, there has been no mention of private protection agencies as alternatives to the State for national defense. The notion of a private agency replacing the United States government's military establishment seems exotic at first glance. But once we appreciate the equivalence between protection from foreign States and protection from the domestic State, we reach

the startling realization that many private protection agencies exist right now. They are the same institutions currently protecting Americans from the United States government's attempted violations of life, property, and liberty—institutions from the American Civil Liberties Union, at one end of the political spectrum, to the National Rifle Association, at the other. Obviously, these existing private protection agencies might have to change their tactics when confronting a foreign State. Or new agencies might have to arise. But the private sector might very well have to respond similarly if the United States government itself were to undergo some radical transformation, say, from democratic to dictatorial. And in both these instances, non-military methods of protecting liberty might still remain more effective.

If members of the American Civil Liberties Union, the National Rifle Association, and numerous other similar organizations within our society behaved as the public-goods argument predicts, they would all pack up and go home.[46] The fact that they do not do so implies that, despite the free-rider problem, more efficient private military alternatives could take the State's place, if it were disarmed. Thus, a more apt term than "disarmament" for my recommended policy would be "denationalization of defense."

The word "unilateral" when applied to Cold War disarmament conveys the unfortunate impression that the user prefers a world in which the United States government is disarmed while other States, such as the Soviet Union, remain armed to the teeth. All that I mean by unilateral is that the disarming of one State need not be made conditional upon the disarming of another. I believe this for roughly the same reason that I believe that the elimination of one State's trade and immigration barriers need not be made conditional upon the elimination of another's barriers. Thus, a more precise word than "unilateral" is "unconditional."[47]

Ideally, I hope for a world in which all States have been disarmed. Although many of the formal economic models of international relations are not very sanguine about this eventuality, this analysis points to two possible shortcomings in such models. First, they are generally built upon a static formulation of the Prisoner's Dilemma, whereas dynamic formulations are more realistic and more likely to predict cooperation. Second, they generally commit the nationalistic fallacy of composition, ignoring the interactions of the State with

its own and foreign populations. Like the public-goods theory they emulate, these models are very good at explaining the cases where disarmament fails. They do not do so well at explaining the cases where disarmament succeeds—as for instance, along the United States-Canada border since 1871.[48]

It is beyond the scope of this paper to work exhaustively through all the international consequences of the positive relationship between the domestic power of the State and its subjects' perception of a foreign threat. In general, ideological dynamics create a symbiotic interdependence between hostile States. The dampening of plausible foreign threats should eventually lead to the kind of genuine mutual disarmament that the intuitive, less formal models of the arms race have always suggested. Although an unconditional denationalization of defense would involve the replacement of the State's military with private alternatives, those alternatives by being divorced from the State would be divorced from the primary means of foreign conquest. Thus, the unconditional disarmament of one State should actually help hasten the day when all the world's States are disarmed.[49]

Of course, the denationalization of defense will not make a society invincible. Luxembourg without an armed State could hardly protect itself against the combined forces of a militarized Germany and a militarized France. But then neither could Luxembourg with a fully armed State. The more important comparative question is which institutions in our "imperfect" world would do the best possible job of protecting the lives, property, and liberty of the Luxemborgian people. I believe that the denationalization of defense would not only reduce the likelihood of foreign conquest but also would limit the oppressiveness of conquest when it cannot be prevented altogether.

Most readers will have noticed that I still have failed to address one major problem. Granting that the unconditional denationalization of defense would be beneficial, how is this policy ever to be implemented? The production of disarmament itself is a public good, confronting the same free-rider obstacle that confronts every non-excludable good and service. Should a majority come to endorse this policy, the narrow special interests who benefit from an armed State would still be willing to commit a lot of resources to keeping the State armed.

The solution to this final "political failure" has of course been implicit throughout the analysis. Like all significant gains in

the history of civilization, the disarming of the State can only be accomplished by a massive ideological surge that surmounts the free-rider obstacle. But this seeming difficulty only enhances the policy's attractiveness. By the very act of disarming the domestic State, the people will have forged a tool for protecting themselves from foreign States.[50]

In conclusion, the public-goods argument fails to justify the State's protection. Indeed, it utterly fails to explain either the functions or origins of the democratic State at all. Because of the inherent public-goods nature of political action, the State in practice produces very few genuine public goods. The most important public goods in the progress of civilization have been ultimately produced outside the State, either directly, or indirectly through influencing State policy.

The democratic State cannot even take credit for the incidental protection its subjects receive as an externality from its protection of its own prerogatives. The ultimate source of that externality is greater liberty, which is not a gift generously bestowed by the democratic State. Liberty too is a public good, perhaps the most valuable of all. Like any other public good, it must be wrenched from the State through political action. This adds new depth to the cherished maxim: "The price of liberty is eternal vigilance." The State is not some convenient short-cut for either the production or protection of liberty. Liberty is only secure among a people willing voluntarily to shun the free-rider incentive and to protect it themselves.

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[1] By “the State” I mean government. I use the two terms interchangeably, unlike many political scientists, who use the term the “State” either for what I am calling the “nation,” the government plus its subjects, or for some vague intermediate entity which is less than the entire nation but more than just the government. I capitalize the word “State” to distinguish it from constituent states within a federal system of government like that of the United States.

Examples of economists treating national defense as the quintessential public good are so abundant as to be almost not worth citing. Nevertheless, I shall mention a few. Paul A. Samuelson, in his once standard text, *Economics*, 10th ed., with Peter Temin (New York: McGraw-Hill, 1976), p. 159, refers to “national defense as an example *par excellence* of public goods.” James M. Buchanan and Marilyn R. Flowers, *The Public Finances: An Introductory Textbook*, 4th ed. (Homewood, Ill.: Richard D. Irwin, 1975), p. 27, state “[d]efense against external enemies seems to fall squarely within the collective goods category.” John G. Head and Carl S. Shoup, “Public Goods, Private Goods, and Ambiguous Goods,” *Economic Journal* 79 (September 1969): 567, speak of the “extreme [public-good] cases, such as that of national defense . . .”

Among the few attempts of economists to look in any detail at national defense as a public good are Earl A. Thompson, “Taxation and National Defense,” *Journal of Political Economy* 82 (July/August 1974): 755–82, and R. Harrison Wagner, “National Defense as a Collective Good” in Craig Liske, et al., William Loehr, and John McCamant, eds., *Comparative Public Policy: Issues, Theories, and Methods* (New York: John Wiley and Sons, 1975), pp. 199–221. Thompson’s article is a formal attempt to find the most efficient tax structure for national defense, based on the assumption that the need is a function of wealth, and has little in common with my approach. The Wagner article is a utility function analysis of the demand for national defense, and I will have occasion to mention it below.

After national defense, the lighthouse was probably economists’ favorite public good, that is, until Ronald H. Coase, “The Lighthouse in Economics,” *Journal of Law and Economics* 17 (October 1974): 357–76, demonstrated that historically lighthouses had been privately provided. Despite his demonstration, economists have not completely abandoned this example.

[2] Paul A. Samuelson’s two classic articles, “The Pure

Theory of Public Expenditure," *Review of Economics and Statistics* 36 (November 1954): 387–89, and "Diagrammatic Exposition of a Theory of Public Expenditure," ibid. 37 (November 1955): 350–56, are generally credited as being the first formal statements of modern public-goods theory. They, like all of Samuelson's articles that I shall cite, are reprinted in *The Collected Scientific Papers of Paul A. Samuelson*, vol. 2, Joseph E. Stiglitz, ed. (Cambridge, Mass.: M. I. T. Press, 1966) or vol. 3, Robert C. Merton, ed. (Cambridge, Mass.: M. I. T. Press, 1972).

Several economists, however, had anticipated Samuelson. Indeed, Adam Smith, in *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776; reprint, New York: Random House, 1937), bk. *5, passim.*, particularly pp. 653–56, 681, presents a brief and crude statement of public-goods theory, giving national defense as an example. The most notable contributions of a largely neglected public-goods tradition among Continental economists were finally collected, translated, and reprinted in Richard A. Musgrave and Alan T. Peacock, eds., *Classics in the Theory of Public Finance* (London: Macmillan, 1958). See particularly Knut Wicksell, "A New Principle of Just Taxation" (1896), pp. 72–118 and Erik Lindahl, "Just Taxation—A Positive Solution" (1919), pp. 168–76. An English presentation that predated Samuelson's was by Howard R. Bowen, in "The Interpretation of Voting in the Allocation of Resources," *Quarterly Journal of Economics* 58 (November 1943): 27–48, and *Toward Social Economy* (New York: Rinehart, 1948).

Important further developments in public-goods theory include Paul A. Samuelson, "Aspects of Public Expenditure Theories," *Review of Economics and Statistics* 40 (November 1958): 332–38; Richard A. Musgrave, *The Theory of Public Finance: A Study in Public Economy* (New York: McGraw-Hill, 1959); and William J. Baumol, *Welfare Economics and the Theory of the State*, 2nd ed. (Cambridge, Mass.: Harvard University Press, 1965).

Samuelson's initial presentation focused only upon non-rival consumption. The distinction between the two public-goods characteristics was not fully clarified until John G. Head, "Public Goods and Public Policy," *Public Finance* 17 (1962): 197–219, reprinted with other of the author's essays on the same subject in Head, *Public Goods and Public Welfare* (Durham, N.C.: Duke University Press, 1974), pp. 164–83. The first full text devoted to public goods was James M. Buchanan, *The Demand and Supply of Public Goods* (Chicago: Rand McNally, 1968), which contains

extensive bibliographic references to the previous literature. For a more recent summary of the still sometimes confusing concepts surrounding public goods, see Duncan Snidal, "Public Goods, Property Rights, and Political Organizations," *International Studies Quarterly* 23 (December 1979): 532–66.

The public-goods literature is terminologically over-endowed. "Public goods" are also called "collective goods" (Samuelson) and "social goods" (Musgrave). "Non-rival consumption" is also called "joint consumption" (Musgrave), "joint demand" (Samuelson), "joint supply" (Head), "indivisibility" (Buchanan), and "non-exhaustiveness" (Brubaker). Except for the fairly rare "non-marketability," the variations for "non-excludability"—"non-exclusiveness" and "non-exclusivity"—at least maintain the same root, and although as I note below, "external economies" or "positive externalities" are related, they are still distinct enough to justify a separate term.

Harold Demsetz, "The Private Production of Public Goods," *Journal of Law and Economics* 13 (October 1970): 293–306, makes a distinction between the terms "public good" (a good or service exhibiting non-rival consumption) and "collective good" (a good or service exhibiting both non-rival consumption *and* non-excludability). Perhaps the high-point in obscure public-goods terminology is reached in Carl S. Shoup, *Public Finance* (Chicago: Aldine, 1969), pp. 66–74, which labels goods with non-rival consumption as "collective-consumption goods" and those with non-excludability as "group-consumption goods." You can imagine how the poor reader must fare with only the huge difference between "collective" and "group" to navigate him through Shoup's turgid explanation. Despite all that, Shoup's treatment is exemplary because he remains the only economist, to my knowledge, not to classify national defense as a public good. Anticipating some of my argument, he puts it in a separate category altogether: "preservation of the nation-state."

[3] Of the four possibilities that the two public-goods characteristics generate, economists have had the most difficult time identifying real-world examples of goods or services that are non-excludable but nevertheless rival in consumption. Some attempts include: use of a neighbors blossoms by the bees of competing bee-keepers; travel on crowded freeways; extraction of oil from underground oil fields; and theft of automobiles. All of these examples, however, with the possible exception of the blossoms, represent goods or services that could be easily made

excludable with a better definition or protection of property rights.

Tyler Cowen, "Public Goods Definitions and Their Institutional Context: A Critique of Public Goods Theory," *Review of Social Economy* 43 (April 1985): 53–63, and Snidal, "Public Goods, Property Rights, and Political Organizations," argue that non-excludability logically implies non-rival consumption. Snidal, however, arrives at this conclusion partially through a definitional sleight of hand. He invents a new term, "noncontrol over exclusion," which he distinguishes from "nonexclusiveness." The new term retains, under a slightly different name, an exclusion characteristic that can vary independently of non-rival consumption, whereas the older term becomes synonymous by definition with a public good exhibiting both characteristics.

Many of the early criticisms of Samuelson's original public-goods articles zeroed in on the polarity of his concept. For instance, see Stephen Enke, "More on the Misuse of Mathematics in Economics: A Rejoinder," *Review of Economics and Statistics* 37 (May 1955): 131–33; Julius Margolis, "A Comment on the Pure Theory of Public Expenditure," ibid. 37 (November 1955): 347–49; and Gerhard Colm, "Comments on Samuelson's Theory of Public Finance," ibid. 38 (November 1956): 408–12. Samuelson, himself, admitted this feature in his second article, "Diagrammatic Exposition of a Theory of Public Expenditure."

The development of a more sophisticated approach can be traced through James M. Buchanan and M. Z. Kafoglis, "A Note on Public Good Supply," *American Economic Review* 53 (January 1963): 403–14; Harold Demsetz, "The Exchange and Enforcement of Property Rights," *Journal of Law and Economics* 7 (October 1964): 11–26; Jora R. Minasian, "Television Pricing and the Theory of Public Goods," ibid. 7 (October 1964): 71–80; R. N. McKean and Jora R. Minasian, "On Achieving Pareto Optimality—Regardless of Cost," *Western Economic Journal* 5 (December 1966): 14–23; Otto Davis and Andrew Winston, "On the Distinction Between Public and Private Goods," *American Economic Review* 57 (Mary 1967): 360–73; E. J. Mishan, "The Relationship Between Joint Products, Collective Goods, and External Effects," *Journal of Political Economy* 77 (May/June 1969): 329–48; and Head and Shoup, "Public Goods, Private Goods, and Ambiguous Goods."

[4] See Cowen, "Public Goods Definitions and Their Institutional Context"; Tom G. Palmer, "Infrastructure: Public or Private?" *Policy Report* 5 (May 1983): 1–5, 11; Murray N.

Rothbard, “The Myth of Neutral Taxation,” *Cato Journal* 1 (Fall 1981): 532–46; and Kenneth D. Goldin, “Equal Access vs. Selective Access: A Critique of Public Goods Theory,” *Public Choice* 29 (Spring 1977): 53–71.

To some extent, this position was anticipated by Earl Brubaker, “Free Ride, Free Revelation, or Golden Rule,” *Journal of Law and Economics* 18 (April 1975): 147–61. Brubaker argues that what he calls “pre-contract excludability” allows the market in many cases to overcome the free-rider problem. “Pre-contract excludability” involves contractually obligating recipients of the public good to pay on the condition that a specified number of other recipients pay. The entrepreneur does not produce the public good until the requisite number of recipients agree to the contract.

[5] I have slightly simplified the alleged “market failure” from non-rival consumption with excludability. The quantity of the public good could also be non-optimal, although economists have not yet determined in exactly which direction. To the extent that different competitors produce redundant quantities of the public good for those customers willing to pay the market price, there will be over-production in addition to under-utilization. To the extent that producers cannot capture the returns from those potential customers who would be willing to pay something less than the market price, there will be under-production.

These supposed problems have led some economists to identify non-rival consumption with excludability as a special case of decreasing cost or of economies of scale. See Samuelson, “Aspects of Public Expenditure Theory”; Head, “Public Goods and Public Policy”; and Davis and Winston, “On the Distinction Between Public and Private Goods.” This occasionally leads to the policy suggestion of providing such public goods through legal monopolies rather than through State financing. However, Snidal, “Public Goods, Property Rights, and Political Organizations,” strongly contests this identification by making a sharp distinction between the marginal cost of producing the good or service in the first place and the marginal cost of extending consumption to additional consumers. This distinction is also found in Buchanan’s *Demand and Supply of Public Goods*, pp. 186–87.

The definitive demonstration of the ability of the market, with discriminatory pricing, to provide non-rival, excludable goods and services is Demsetz, “The Private Production of Public

Goods." This possibility first became dimly appreciated when Carl S. Shoup, "Public Goods and Joint Production," *Rivista internazionale di scienze economiche e commerciali* 12 (1965): 254–64, and James M. Buchanan, "Joint Supply, Externality, and Optimality," *Economica* (November 1966): 404–15, noticed the analogy between non-rival consumption and the Marshallian concept of joint production, e.g., mutton and wool from a common unit of sheep. Paul A. Samuelson, "Contrast Between Welfare Conditions for Joint Supply and for Public Goods," *Review of Economics and Statistics* 51 (February 1969): 26–30, unpersuasively disputed the import of this analogy. Earl A. Thompson, "The Perfectly Competitive Production of Collective Goods," ibid. 50 (February 1968): 1–12, admitted that discriminatory pricing was possible on the market, but with a faulty model tried to show that the result was over-production of the public good.

John G. Head concludes that the major justification for government intervention, not just in the case of national defense, but in the case of all public goods, "will be found to derive fundamentally from the non-excludability elements rather than from generalized joint supply problems." See "Public Goods: The Polar Case," in Richard M. Bird and John G. Head, eds., *Modern Fiscal Issues: Essays in Honour of Carl S. Shoup* (Toronto: University of Toronto Press, 1972), p. 16.

[6] Samuelson, in a later article, "Pure Theory of Public Expenditure and Taxation," in J. Margolis and H. Guitton, eds., *Public Economics: An Analysis of Public Production and Consumption and their Relations to the Private Sectors* (London: Macmillan, 1969), pp. 98–123, advanced an astonishing revised definition of public goods: "A public good . . . is simply one with the property of involving a 'consumption externality,' in the sense of entering into two or more persons' preference functions simultaneously. . . . What are we left with? Two poles and a continuum in between? No. With a knife-edge pole of the private-good case, and with *all* the rest of the world in the public-good domain . . . [Emphasis his]."

Thus, Samuelson defined every single case of positive externalities in consumption as a public good. Snidal, "Public Goods, Property Rights, and Political Organizations," in contrast, articulates the position that I take, and most of the economists cited on public goods in the notes above are closer to me than to Samuelson. Head's collection, *Public Goods and the Public Welfare*, pp. 184–213, reprints a useful survey article on externalities,

"Externality and Public Policy"; Buchanan's *Demand and Supply of Public Goods*, p. 75, offers a brief bibliographic essay on the subject; while Shoup *Public Finance*, pp. 96–98, and Mishan, "The Relationship Between Joint Products, Collective Goods, and External Effects," explicitly discuss the relationship between externalities and public goods.

[7] David Friedman, in his defense of anarcho-capitalism, *The Machinery of Freedom: Guide to Radical Capitalism* (New York: Harper and Row, 1973), pp. 188–89, makes this point, yet without quite identifying the distinction between the two forms of national defense. "One . . . argument is the assertion that national defense is unnecessary in an anarchist society, since there is no nation to defend. Unfortunately, there will still be nations to defend against, unless we postpone the abolition of our government until anarchy is universal."

[8] Earl C. Ravenal, *Defining Defense: The 1985 Military Budget* (Washington, D.C.: Cato Institute, 1984). Public-goods theorists do occasionally admit that not all of the State's military necessarily goes to defending the people, but they generally attach no theoretical significance to the admission. For instance, see Buchanan and Flowers, *The Public Finances*, pp. 27–28.

[9] Randolph Bourne's famous observation first appeared posthumously in an essay under the title "Unfinished Fragment on the State," in James Oppenheim, ed., *Untimely Papers* (New York: B. W. Huebsch, 1919), pp. 140–53. A later version of the essay that restored Bourne's original sequence, under the title "The State," was included in Carl Resek, ed., *War and the Intellectuals* (New York: Harper and Row, 1964), pp. 64–104.

A general substantiation (or refutation) of Bourne's observation has so far not attracted the professional energies of any historian, perhaps because they feel no need to belabor the obvious. There are lots of studies showing the growth of the State's power in particular countries during particular wars, but very few that even treat a single country during more than one war, or more than a single country during one war. A few exceptions that have come to my attention include: Clinton Rossiter, *Constitutional Dictatorship: Crisis Government in Modern Democracies* (Princeton: Princeton University Press, 1948), a comparison of the U.S., Britain, France, and Germany during the twentieth century that concludes that the U.S. has the least bad record; Arthur A. Ekirch, Jr., *The Civilian and the Military: A History of the American Antimilitarist Tradition* (New York: Oxford University Press, 1956), which is primarily interested in

American antimilitarist movements, but in the process gives a sketchy account of war's impact upon the U.S. government's power; Robert Higgs, *Crisis and Leviathan: Critical Episodes in the Emergence of the Mixed Economy* (New York: Oxford University Press, 1987), which also covers the U.S.—during the twentieth century—arguing that the mixed economy is primarily a product of war; and Charles Tilly, ed., *The Formation of National States in Western Europe* (Princeton: Princeton University Press, 1975), as well as Tilly, "War Making and State Making as Organized Crime," in Peter B. Evans, Dietrich Rueschemeyer, and Theda Skocpol, eds., *Bringing the State Back In* (Cambridge: Cambridge University Press, 1985), pp. 169–91, both of which cover the war-related origins of the European nation-States.

[10] I cite examples of economic models exhibiting the nationalistic fallacy of composition below. One of the very few written challenges to the nationalistic model is Murray N. Rothbard, "War, Peace and the State," in Rothbard, *Egalitarianism as a Revolt Against Nature: And Other Essays* (Washington, D.C.: Libertarian Review Press, 1974), pp. 70–80. I have profited greatly from this pathbreaking essay.

[11] See Don Lavoie, *National Economic Planning: What is Left?* (Cambridge, Mass.: Ballinger, 1985), and Rivalry and *Central Planning: The Socialist Calculation Debate Reconsidered* (New York: Cambridge University Press, 1985).

The approach in this article to the relationship between positive and normative economics is identical to the *wertfrei* approach of Ludwig von Mises, as expounded in *Theory and History: An Interpretation of Social and Economic Evolution* (New Haven, Conn.: Yale University Press, 1957), pp. 26–34, and *Human Action: A Treatise on Economics*, 3rd. rev. ed. (Chicago: Henry Regnery, 1966), pp. 881–85. See also Murray N. Rothbard, *Power and Market: Government and the Economy* (Menlo Park, Calif.: Institute for Humane Studies, 1970), pp. 189–96. A quite different formulation of basically the same approach is David Friedman, "Many, Few, One: Social Harmony and the Shrunken Choice Set," *American Economic Review* 70 (March 1980): 225–32.

[12] Historical generalizations of this sort are admittedly subject to many particular exceptions. Nonetheless, consult Hans Kohn, *The Idea of Nationalism: A Study in Its Origins and Backgrounds* (New York: Macmillan, 1944), pp. 16–17. For further details, see Andre Corvisier, *Armies and Societies in Europe, 1494–1789* (Bloomington: Indiana University Press,

1979); John Childs, *Armies and Warfare in Europe, 1648–1789* (New York: Holmes & Meier, 1982); and Geoffrey Best, *War and Society in Revolutionary Europe, 1770–1870* (New York: St. Martin's Press, 1982).

[13] For a purely formal approach to people's utility functions with regard to national defense, see Wagner, "National Defense as a Collective Good."

[14] Demsetz makes the comparison between the "nirvana" and "comparative institutions" approaches in "Information and Efficiency: Another Viewpoint," *Journal of Law and Economics* 12 (April 1969): 1–3. Of the earliest assertions of the comparative-institutions approach, perhaps the most influential were Ronald Coase, "The Problem of Social Cost," ibid. 3 (October 1960): 1–44; James M. Buchanan, "Politics, Policy, and the Pigovian Margins," *Economica* 29 (February 1962): 17–28; and Ralph Turvey, "On the Divergences between Social Cost and Private Cost," ibid. 30 (August 1963): 309–13. I have already cited the first applications to public goods: Demsetz, "The Exchange and Enforcement of Property Rights"; Minasian, "Television Pricing and the Theory of Public Goods"; McKean and Minasian, "On Achieving Pareto Optimality—Regardless of Cost"; and David and Winston, "On the Distinction Between Public and Private Goods."

To be completely fair, Samuelson from his first article, "The Pure Theory of Public Expenditure," on did *technically* take a positive approach and never insisted that the public-goods "market failure" necessarily justified government intervention. But as Head, in "Public Goods: The Polar Case," reports: "It is clearly recognized by both Samuelson and Musgrave that political provision for public goods must pose difficult problems. There is, however, a clear implication that the market failure problem is such that the political mechanism could hardly prove inferior" (p. 7). Only in an intemperate reply to Minasian's "Television Pricing and the Theory of Public Goods," did Samuelson finally give some prominence to his admission that a public good did not always require State provision. See his "Public Goods and Subscription T.V.: Correction of the Record," *Journal of Law and Economics* 7 (October 1964): 81–83.

Of course, in order to determine whether the benefits of State provision of a public good outweigh the costs, one must be able to measure them. But all costs and benefits are ultimately subjective, and only fully revealed through the voluntary actions of individuals. Starting from this radical subjectivist stance, Karl

T. Fielding, "Nonexcludability and Government Financing of Public Goods," *Journal of Libertarian Studies* 3 (Fall 1979): 293–38, and Barry P. Brownstein, "Pareto Optimality, External Benefits and Public Goods: A Subjectivist Approach," ibid. 4 (Winter 1980): 93–106, conclude that the State can never do better than the market in providing public goods, even if it wanted to. My argument manages to skirt this thorny theoretical issue by comparing the market and the State with respect to incentives, rather than with respect to costs and benefits. If the State has fewer real-world incentives to provide a public good than the market, the comparative costs and benefits become irrelevant.

[15] The first public-choice work to begin to apply public-goods theory to political action was Anthony Downs, *An Economic Theory of Democracy* (New York: Harper and Row, 1957), which examined political parties as vote-maximizing firms. James M. Buchanan and Gordon Tullock, in *The Calculus of Consent: Logical Foundations of Constitutional Democracy* (Ann Arbor: University of Michigan Press, 1962), took a hard-headed look at the drawbacks of majority rule, although they coupled it up with an ethereal foray into the mystical realm of social contract. One of the most seminal contributions to this tradition, the first edition of which appeared in 1965, was Mancur Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups*, 2nd ed. (Cambridge, Mass.: Harvard University Press, 1971). It applied public-goods theory to groups in general. William A. Niskanen, Jr., *Bureaucracy and Representative Government* (Chicago: Aldine-Atherton, 1971), introduced the notion of the bureaucracy as an independent special interest group. Further refinements upon how the democratic process benefits special interests include Gordon Tullock, *Toward a Mathematics of Politics* (Ann Arbor: University of Michigan Press, 1967), and Albert Breton, *The Economic Theory of Representative Government* (Chicago: Aldine, 1974).

[16] Richard E. Wagner, in a review of the first edition of Olson's *Logic of Collective Action*—"Pressure Groups and Political Entrepreneurs," *Papers on Non-Market Decision Making* 1 (1966): 161–70—raises the political-entrepreneur thesis as an objection to Olson's conclusions. Norman Fröhlich, Joe A. Oppenheimer, and Oran R. Young, *Political Leadership and Collective Goods* (Princeton: Princeton University Press, 1971), stress the role of the entrepreneur in creating political organizations. Olson responds briefly in the 2nd ed., pp. 174–75. Brian Barry,

Sociologists, Economists and Democracy (Chicago: University of Chicago Press, 1978), pp. 37–40, and Russell Hardin, *Collective Action* (Baltimore, Md.: The Johns Hopkins University Press, 1982), pp. 35–37, go into the weakness of the political-entrepreneur thesis in greater detail.

[17] The fact that voting becomes less of a public good the closer the anticipated outcome of the election allows Yoram Barzel and Eugene Silberberg, "Is the Act of Voting Rational?" *Public Choice* 16 (Fall 1973): 51–58, to explain some of the variation in voter turnout. Nevertheless, voting remains the gaping hole in much of the public-choice literature. The fact that voting is a public good, and is not therefore "rational" according to public-choice assumptions, has been long realized. Yet, many public-choice theorists go on blithely spinning out elaborate models based on the untenable paradox that people always vote but in every other respect always behave "rationally." Downs, *An Economic Theory of Democracy*, recognizes the problem but does not resolve it. For an extended discussion of this paradox, see Barry, *Sociologists, Economists and Democracy*, pp. 13–19.

[18] Olson's taxonomy of groups—privileged (small), intermediate, and latent (large)—in *The Logic of Collective Action* treats these two factors, group size and relative cost of the public good, simultaneously and thus slightly confuses the issue. Hardin, *Collective Action*, pp. 38–42, clarifies Olson's taxonomy, correctly pointing out that a privileged group (one in which a single member values the public good enough to pay its entire cost) could theoretically be quite large. One of the clearest expositions of these factors appears in David Friedman's neglected *The Machinery of Freedom*, pp. 185–88.

Admittedly, there is some ambiguity about which *ceteris* remain *paribus* when varying group size. Some scholars have consequently challenged the claim that larger groups have greater difficulty overcoming the free rider incentive. See for instance John Chamberlin, "Provision of Public Goods as a Function of Group Size," *American Political Science Review* 68 (June 1974): 707–16. Again, the best resolution of these questions is Hardin, *Collective Action*, pp. 42–49 and 125–37.

[19] The position that democratic political action, rather than producing genuine public goods, *primarily if not exclusively* produces bogus public goods that benefit special interests, goes back as far as Giovanni Montemartini's turn-of-the-century essay, "The Fundamental Principles of a Pure Theory of Public Finance," translated and reprinted in Musgrave and Peacock,

Classics in the Theory of Public Finance, pp. 137–51. One of the most succinct and lucid modern restatements of the position is, again, Friedman, *The Machinery of Freedom*, pp. 213–15, who concludes that "bad law is often less of a public 'good' than good law." Brubaker, "Free Ride, Free Revelation, or Golden Rule," uses the term "forced riding" to describe what the State does in the name of providing public goods. A detailed presentation of the position is Joseph P. Kalt, "Public Goods and the Theory of Government," *Cato Journal* 1 (Fall 1981): 565–84.

Gordon Tullock has suggested the potential scope of this "political failure," apparently without fully intending or realizing it, in an intriguing examination of the perfectly corrupt State—a State where *all* changes in policy are directly purchased. His "Corruption and Anarchy," in Tullock, ed., *Further Explorations in the Theory of Anarchy* (Blacksburg, Va.: Center for the Study of Public Choice, 1974), pp. 65–70, concludes that a perfectly corrupt State would generate policies identical to those that would be generated without the State at all. In other words, public goods are no more likely to be produced with the perfectly corrupt State than without it.

Of course, the analysis does not always lead scholars to this extreme position. Tullock himself, in an early article that precociously pre-dated most of the public choice literature, "Some Problems of Majority Voting," *Journal of Political Economy* 67 (December 1959): 571–79, reached the more moderate conclusion, which he still apparently holds, that the democratic process merely generates a government budget that is too large. Indeed, Anthony Downs, "Why the Government Budget is Too Small in a Democracy," *World Politics* 12 (July 1960): 541–63, turns the analysis around. By focusing on all the genuine public goods that the democratic process has no incentive to produce, he reaches the bizarre conclusion that the democratic State will inevitably be too small.

Incidentally, the inherent public-goods nature of political action fatally undercuts the latest abstraction in public-goods theory: the demand-revealing process. As advanced by Edward H. Clarke, *Demand Revelation and the Provision of Public Goods* (Cambridge, Mass.: Ballinger, 1980), and Jerry Greene and J. J. Laffont, *Incentives in Public Decision-Making* (North Holland, The Netherlands: 1979), as well as in numerous journal articles, the demand-revealing process is a proposed voting scheme that links tax payments to votes in such a way as to give people an incentive (1) to vote in the first place and (2) to reveal their true

demand-preferences for (or against) various public goods with their votes. Ignoring whether this scheme would work if implemented, we can clearly see that implementing it at all runs afoul of the public-goods obstacle. Without the demand-revealing process in effect already, voters have absolutely no incentive to vote for putting the process into effect.

[20] Friedman, *The Machinery of Freedom*, p. 189. Dwight R. Lee, "The Soviet Economy and the Arms Control Delusion," *Journal of Contemporary Studies* 8 (Winter/Spring 1985): 46, makes the same observation about the political production of national defense, but because he does not recognize the distinction between defending the State and defending the people, he arrives at a much different conclusion: viz., democratic States will under-produce military defense relative to undemocratic States.

[21] A similar point is made by Kenneth E. Boulding, "The World War Industry as an Economic Problem," in the collection he co-edited with Emile Benoit, *Disarmament and the Economy* (New York: Harper and Row, 1963), pp. 3–27. He refers to the world's competing military organizations as "milorgs" and insists that, in contrast to any other social enterprise (including police protection), military organizations generate their own demand. "The only justification for the existence of a milorg is the existence of another milorg in some other place. . . . A police force is not justified by the existence of a police force in another town, that is, by another institution of the same kind" (p. 10).

[22] Brubaker, "Free Ride, Free Revelation, or Golden Rule," p. 153.

[23] For the argument that revolution is a public good, see Gordon Tullock, "The Paradox of Revolution," *Public Choice* 9 (Fall 1971): 89–99, which became with minor alterations one of the chapters of his book, *The Social Dilemma: The Economics of War and Revolution* (Blacksburg, Va.: University Publications, 1974). Tullock distinguishes between what he calls "exploitative" and "cooperative" governments, rather than democratic and undemocratic, but the two classifications are operationally almost identical.

[24] The public-goods theory of the democratic State is still stated best in Baumol, *Welfare Economics and the Theory of the State*: "The essence of democratic government may then be the voluntary acceptance of a central agency of intimidation designed for the attainment of the desires of the public" (p. 57). Baumol traces this view of the State back through John Stuart

Mill, Adam Smith, and David Hume. This view also informs the constitutional speculations about better decision rules of Buchanan and Tullock in *The Calculus of Consent*. Buchanan is more pessimistic about the State in "Before Public Choice," from Gordon Tullock, ed., *Explorations in the Theory of Anarchy* (Blacksburg, Va.: Center for the Study of Public Choice, 1972), pp. 27–37, and in *The Limits of Liberty: Between Anarchy and Leviathan* (Chicago: University of Chicago Press, 1975), but he is still caught up in the milieu of the social contract. Even Olson, *The Logic of Collective Action*, pp. 98–110, who uses the free-rider problem to critique effectively the Marxist theory of the State, still appears uncritically to accept the public-goods theory of the State. One public-choice theorist who is shying away from social contract and moving toward a generalized exploitation theory of the State is J. Patrick Gunning, "Towards a Theory of the Evolution of Government," in Tullock, ed., *Explorations in the Theory of Anarchy*, pp. 19–26. Douglass C. North, *Structure and Change in Economic History* (New York: W. W. Norton, 1981), pp. 20–32, makes a less-than-convincing effort to reconcile the contract and exploitation theories of the State by claiming that a purely predatory State will still provide many important genuine public goods in order to maximize its revenue.

[25] Kalt, "Public Goods and the Theory of Government," pinpoints the contradiction in the public-goods theory of the State. The still devastating, classic, point-by-point refutation of the social contract, in its literal rather than metaphorical version, remains Lysander Spooner, *No Treason: The Constitution of No Authority* (1870; reprinted, Larkspur, Colo.: Pine Tree Press, 1966). See also Williamson M. Evers, "Social Contract," *Journal of Libertarian Studies* 1 (Summer 1977): 185–94, which traces the literal notion of a social contract all the way back to Socrates.

[26] Since the definition of the State (or government) is something political scientists cannot even agree upon, mine will obviously be controversial. By "legitimized" (a positive adjective), I of course do not mean "legitimate" (a normative adjective). Most economists should have no difficulty conceiving of the State as a monopolistic coercive institution, but non-economists might balk. Members of the general public appear to have a bifurcated definition of the State, depending on whether it is domestic or foreign. They view hostile foreign States as simply monopolies on coercion, just like criminal gangs, which is why they fear foreign conquest. They overlook the legitimization of these States. On the other hand, that is the only element they

seem to recognize about the domestic State, overlooking or at least deemphasizing the coercive element. This dichotomy is only a cruder version of the distinction made by public-goods theory between democratic and undemocratic States. For an extended defense of the implications of this universal definition, see Murray Rothbard, "The Anatomy of the State," in *Egalitarianism as a Revolt Against Nature*, pp. 34–53. I should note that my definition neither necessarily implies nor necessarily contradicts the conquest theory of the State's *origin*, as expounded most notably in Franz Oppenheimer, *The State* (1914; reprinted, New York: Free Life Editions, 1975).

Although I put the term "legitimization" into my definition of the State, I am not making a purely tautological claim. Not all coercive institutions are called States, and I think the term "legitimization" captures the difference. But if someone should empirically demonstrate that the Soviet State, for instance, is not considered legitimate by a major number of its subjects, then I would modify my definition, rather than deny that the organization ruling over the Russians was a State.

[27] One of the earliest observations that a social consensus *always* legitimizes the State is Etienne de la Boetie, *The Politics of Obedience: The Discource of Voluntary Servitude* (1574; reprinted, New York: Free Life Editions, 1975). La Boetie first wrote this essay in sixteenth-century France, while living under a despotic monarch. In other words, the concept of legitimized State, rather than being unique to democratic States, arose at a time when there were no such States to study.

Many other writers have since accepted the social-consensus theory of the State. For instance, see David Hume, "Of the First Principles of Government," in *Essays, Moral, Political, and Literary* (1741–42; reprint, London: Oxford University Press, 1963), pp. 29–34. Ludwig von Mises discusses the role of ideas in social consensus in *Human Action*, pp. 177–90. The description of the social consensus as an unintended institution that evolves implicitly rather than an intended construct that is agreed upon explicitly derives from Friedrich A. Hayek. The implications of social consensus for various kinds of political action are exhaustively explored in Gene Sharp, *The Politics of Nonviolent Action* (Boston: Porter Sargent, 1973), esp. pt. 1, "Power and Struggle," although Sharp has a tendency to confound *legitimization* with mere *compliance* to the State's rule.

[28] I am confident about the empirical results, having conducted the test many times.

[29] Although Americans like to think that the Russian people share the aspirations of the widely publicized Russian dissidents, most observers report that the Russians view their dissidents much the same way as Americans view their traitors. Moreover, rather than desire more liberty, there is a considerable segment of the Soviet population that thinks the Soviet State is too soft. Despite official disapproval, this growing Stalin cult longs for the good old days of effective Stalinist discipline. Victor Zaslavsky, *The Neo-Stalinist State* (New York: Oxford University Press, 1983), has actually conducted fairly reliable surveys among Soviet subjects, which indicate quite unambiguously that the Soviet State is legitimized. For a look at some of the conflicting ideological trends within the Soviet Union, see Alexander Yanov, *The Russian New Right: Right-Wing Ideologies in the Contemporary USSR* (Berkeley, Calif.: Institute for International Studies, 1978). Good single-volume histories that impart an appreciation for the domestic sources of the Soviet State are Robert V. Daniels, *Russia: The Roots of Confrontation* (Cambridge, Mass.: Harvard University Press, 1985), and Geoffrey Hosking, *The First Socialist Society: A History of the Soviet Union from Within* (Cambridge, Mass.: Harvard University Press, 1985). An introduction to the various interpretations of Soviet history by American scholars, written from a revisionist slant, is Stephen F. Cohen, *Rethinking the Soviet Experience: Politics and History since 1917* (New York: Oxford University Press, 1985).

[30] This awkward position is clearest in Tullock's *Social Dilemma*. He concedes "that the earliest governments of which we have any positive knowledge were despotisms of one sort or another, and that despotisms have remained the dominant form of government of the human race ever since" (p. 25). But rather than notice that this creates considerable tension for his claim later in the book that revolutions bringing about social benefits are impossible, because of the free-rider obstacle, he instead makes the breathtaking assertion: "Revolution is the subject of an elaborate and voluminous literature and, if I am right, almost all of this literature is wrong" (p. 46). Actually, this statement represents a mellowing from the claim in his previous article, "The Paradox of Revolution." There he left out the qualifying word "almost" in front of "all of this literature."

[31] Revolutionary historians of the imperial school might deny that the stand at Concord Bridge generated any positive externalities, and they would point to the amount of freedom that the British people themselves came to enjoy. But these

historians would just underestimate the externalities. The American Revolution not only brought net benefits for Americans, but by altering the nature of the British Empire, eventually brought benefits to the British as well. The premier work on the role of ideas in the American Revolution is Bernard Bailyn, *Ideological Origins of the American Revolution* (Cambridge, Mass.: Harvard University Press, 1967), while a work that explores the international repercussions of the revolution is Robert R. Palmer, *The Age of Democratic Revolution: A Political History of Europe and America, 1760–1899*, vol. 2 (Princeton: Princeton University Press, 1959–64). As for my other example, a magisterial survey of the international history of chattel slavery is David Brion Davis, *Slavery and Human Progress* (New York: Oxford University Press, 1984), while a narrower historical survey of the international abolitionist movement itself is his *The Problem of Slavery in Western Culture* (Ithaca, N.Y.: Cornell University Press, 1966).

[32] Among the economists that recognize the public-goods nature of ethical behavior are James M. Buchanan, in "Ethical Rules, Expected Values, and Large Numbers," *Ethics* 76 (October 1965): 1–13; Richard B. McKenzie, in "The Economic Dimensions of Ethical Behavior," *Ethics* 87 (April 1977): 208–21, and North, in *Structure and Change in Economic History*, pp. 11–12, 18–19, 45–46. Buchanan again touches upon this aspect of ethical behavior in "Before Public Choice," pp. 29–30, where he emphasizes that ethical behavior involves a total externality—because an individual gains no benefits from his own ethical behavior—and in *The Limits of Liberty*, pp. 123–29, where he looks upon an increase in ethical free riding as an erosion of a society's rule-abiding capital.

[33] Rothbard, "The Myth of Neutral Taxation," makes a similar observation: "Thus the free-rider argument proves far too much. After all, civilization itself is a process of all of us 'free-riding' on the achievements of others. We all free-ride, every day, on the achievements of Edison, Beethoven, or Vermeer" (p. 545).

For a contrasting and ingenious attempt to interpret history as the working out of public-goods theory, rather than as the contradiction of it, see Mancur Olson, *The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities* (New Haven, Conn.: Yale University Press, 1982). Although this effort is pioneering as far as it goes, it still depends at critical junctures upon historical accidents—wars, revolutions, and conquests—to sweep away the existing distributional coalitions. An even less

satisfactory, although still very valuable efforts by economists to account for historical change without reference to people's ideological preferences but purely on the basis of material factors is Douglass C. North and Robert Paul Thomas, *The Rise of the Western World: A New Economic History* (New York: Cambridge University Press, 1973).

At least one of those two authors has begun to back away from this a-ideological stance, i.e., North, *Structure and Change in Economic History*. He states: "Casual everyday observation confirms the ubiquitous existence of the free rider behavior. But casual observation also confirms the immense number of cases where large group action does occur and is a fundamental force for change—action which, however, is simply inexplicable in neoclassical terms. The economic historian who has constructed his model in neoclassical terms has built into it a fundamental contradiction since there is no way for the neoclassical model to account for a good deal of the change we observe in history" (pp. 10–11).

[34] Howard Margolis, *Selfishness, Altruism, and Rationality: A Theory of Social Choice* (Cambridge, Mass.: Cambridge University Press, 1982), p. 6.

[35] Several scholars, noting the empirical problem with the free-rider assumption, are moving in this direction. For instance, Robyn M. Dawes, "Social Dilemmas," *Annual Review of Psychology* 31 (1980): 169–93, suggests that altruism, conscience, and social norms are important individual ends. Barry, *Sociologists, Economists, and Democracy*, goes so far as to propose that a full understanding of human society requires two distinct approaches: the economic and sociological. He is building upon Mancur Olson, "Economics, Sociology, and the Best of All Possible Worlds," *Public Interest* 12 (Summer 1968): 96–118, who contrasts economics, the study of rational action, with sociology, the study of socialization. Higgs, *Crisis and Leviathan*, chap. 3, discusses ideology at great length as the factor which overcomes what he calls "Olson's Iron Law of Collective Inaction." Similarly, North gives chap. 5 of *Structure and Change in Economic History* the title "Ideology and the Free Rider Problem."

But the most impressive work along these lines is Margolis's *Selfishness, Altruism, and Rationality*, which is summarized in his journal article, "A New Model of Rational Choice," *Ethics* 91 (January 1981): 265–79. Margolis steps beyond merely noting the ideological and altruistic components in people's goals; he sets up a very intriguing formal model of human behavior that

incorporates group-oriented goals and attempts to test it. His is the first serious attempt to determine when people will choose to free ride and when they will not. My only reservation is with his desire to use his model to resurrect the discredited notion of a bifurcated man: i.e., one whose selfish behavior predominates within the private realm, while his altruistic behavior predominates within the political realm. We observe a close to equal mixture of both motives within both realms.

Daniel Klein, "Private Turnpike Companies of Early America" (unpubl. ms., New York University) examines a historical instance in which what he calls "moral suasion" played a significant role in the provision of a good—roads—that is among the most frequently mentioned examples of a public good. Most of the investors in private turnpike companies in early America lost money, yet they continued to make this investment. Klein persuasively argues that it was not poor forecasting on their part that caused this behavior. They knowingly violated their narrow self-interest in order to provide the community with a public good.

I should note that I attach the adjective "narrow" to the term "self-interest" to indicate the usage that involves seeking particular, usually selfish, goals. This is to distinguish it from the broader usage of the term, which can encompass any goal, including altruism. Whether individuals do in fact pursue their narrow self-interest is a question subject to empirical verification or falsification, but individuals by definition always pursue their broad self-interest.

[36] Olson, *The Logic of Collective Action*, pp. 64–65.

[37] Higgs, *Crisis and Leviathan*, chap. 3, heavily emphasizes the role of ideological solidarity.

[38] Richard Tuck, "Is There a Free-Rider Problem, and if so, What is It?" in Ross Harrison, ed., *Rational Action* (Cambridge, Mass.: Cambridge University Press, 1979), pp. 147–56.

We can salvage Olsonian "rationality" under two strict conditions. When (1) a threshold level of resources is necessary before any of the public good becomes available whatsoever, *and* (2) people end up paying whatever resources they contribute, irrespective of whether they reach the threshold or not, it becomes rational not to contribute *if* a person predicts that the threshold will not be reached. In that special case, he or she would simply be throwing away resources for nothing. Notice that these two conditions apply more frequently to obtaining

public goods through politics—which is often a win or lose, all or nothing, situation—than to obtaining public goods on the market. In particular, it applies to voting. Hardin, *Collective Action*, pp. 55–61, analyzes the first of these conditions, for which he employs the term "step goods."

About a decade ago, a popular book, Harry Browne's *How I Found Freedom in an Unfree World* (New York: Macmillan, 1973), attempted to convince people that among other things they should not try to change society through political action. Browne gave basically two arguments: (1) there are much better ways for people to attain directly the benefits they want (narrow self-interest), and (2) their participation in political action does not change society anyway (Olsonian "rationality"). His book was a best seller, but the fact that he had to write it at all indicates how infrequently these two motives fully govern people's actions.

[39] Olson, *The Logic of Collective Action*, pp. 132–68. Olson also refers to excludable "by-products" as "selective incentives." Gary Becker, "A Theory of Competition among Pressure Groups for Political Influence," *Quarterly Journal of Economics* 98 (August 1983): 372–80, basically depends on the by-product theory to overcome the free-rider incentive against political activity. Looked at another way, the by-product theory converts a full public good into a positive externality of a private good.

[40] Those advocating voluntary funding of national defense through the sale of excludable by-products include Ayn Rand, "Government Financing in a Free Society," in *The Virtue of Selfishness: A New Concept of Egoism* (New York: New American Library, 1964), pp. 157–63; Jarret B. Wollstein, *Society Without Coercion: A New Concept of Social Organization* (Silver Springs, Md.: Society for Individual Liberty, 1969), pp. 35–38; Morris and Linda Tannehill, *The Market for Liberty* (Lansing, Mich.: Tannehill, 1970), pp. 126–35; and Tibor R. Machan, "Dissolving the Problem of Public Goods," in Machan, ed., *The Libertarian Reader* (Totowa, N.J.: Rowman and Littlefield, 1982), pp. 201–08. Rand and Machan would still have national defense provided by the State, but one that collected no taxes. Wollstein and the Tannehills—whose separate works were reprinted together under the combined title *Society without Government* (New York: Arno Press, 1972)—prefer private alternatives. For a telling critique of the by-product theory as applied to national defense, see Friedman, *The Machinery of Freedom*, pp. 192–93.

[41] Hardin, *Collective Action*, pp. 31–34, criticizes the by-

product theory.

[42] The book which launched mathematical game theory was John von Neumann and Oskar Morgenstern, *The Theory of Games and Economic Behavior*, 3rd ed. (Princeton: Princeton University Press, 1953); the first edition appeared in 1944. According to Hardin, *Collective Action*, p. 24, the Prisoner's Dilemma itself was first discovered in 1950 by Merril Flood and Melvin Dresher. A. W. Tucker, a game theorist at Princeton University, later gave the Prisoner's Dilemma its name. For the personal reminiscences of one of the early researchers who worked on the Prisoner's Dilemma, coupled with a survey of the studies of the dilemma up to the mid-seventies, see Anatol Rapoport, "Prisoner's Dilemma—Recollections and Observations," in Rapoport, ed., *Game Theory as a Theory of Conflict Resolution* (Dordrecht, The Netherlands: D. Reidel, 1974), pp. 17–34. Interestingly enough, despite the commonality between the Prisoner's Dilemma and the public-goods problem, Samuelson in "Pure Theory of Public Expenditure and Taxation," dismissed all game theory because "except in trivial cases, [it] propounds paradoxes rather than solves problems."

[43] R. Hardin, "Collective Action as an Agreeable *n*-Prisoners' Dilemma," *Behavioral Science* 16 (September 1971): 472–81; Michael Taylor, *Anarchy and Cooperation* (London: John Wiley & Sons, 1976); Hardin, *Collective Action*; and Robert Axelrod, *The Evolution of Cooperation* (New York: Basic Books, 1984). Axelrod confines himself to two person dynamic Prisoner's Dilemmas, while both Taylor and Hardin consider *n*-person iterated games. For a good review of the growing literature on *n*-person games, see Dawes, "Social Dilemmas." The conclusion of much of this work was anticipated by Brubaker, "Free Ride, Free Revelation, or Golden Rule," who tested for cooperation on public goods with pre-contract excludability.

[44] Strictly speaking, my argument has applied to the provision of national defense with taxation or some other coercive measure. Thus, it challenges the use of such measures by private alternatives. Some might also speciously conclude that it allows for the provision of defense by a State that does not collect taxes. To fully explain why I believe the idea of a voluntary State is a contradiction in terms would involve us in the lengthy philosophical debate between anarchist and minarchist libertarians. Suffice to say, without the public-goods argument, those who still advocate State-provided protection must present a different argument for entrusting this service to

the State. Until then, I will merely point out that entrusting national defense to a State that does not collect taxes, at least to support that service, would achieve the worst of both worlds. It would abandon the only apparent advantage of having the State provide this public good, the ability to coerce free riders, but would maintain all the other obvious disadvantages of State-provided protection.

[45] In Britain, unlike the U.S., significant segments of the peace movement do advocate unilateral disarmament, but even there, many of them view this as a realistic possibility only because of the existence of the U.'S. military establishment. Within the U.S., the only individuals actually to endorse unilateral disarmament have been those who believe non-violent resistance is a practical alternative. They have recently begun to refer to themselves as the transarmament movement, because they wish to "transcend" reliance upon arms for defense. Their most prominent proponent is Gene Sharp. See his *Making Europe Unconquerable: The Potential of Civilian-based Deterrence and Defence* (Cambridge, Mass.: Ballinger, 1986), has been recently published. Others who have explored this option both here and abroad are Anders Bosserup and Mack Andrew, War *Without Weapons: Non-Violence in National Defense* (New York: Schocken Books, 1974); Dietrich Fischer, *Preventing War: A Policy for Britain* (Totowa, N.J.: Rowman and Allanheld, 1984); Stephen King-Hall, *Power Politics in the Nuclear Age* (London: Victor Gollancz, 1962); Adam Roberts, ed., *Civilian Resistance as a National Defense: Non-Violent Action Against Aggression* (Baltimore: Penguin Books, 1969); and Mulford Q. Sibley, ed., *The Quiet Battle: Writings on the Theory and Practice of Nonviolent Resistance* (Chicago: Quadrangle Books, 1963).

I believe this perspective has much to offer. It is more sensitive to the role of legitimization in the power of the State than any of the more conventional perspectives. Nevertheless, my policy proposal departs from this perspective in two very significant features: (1) it envisages military defense organized without a State, whereas non-violent resistance rules out military defense altogether; and (2) it rules out any kind of defense provided by the State, whereas most of the transarmament advocates favor *nationalized* non-violent resistance. They have no objection to the domestic State employing taxation and in some cases even conscription in order to implement non-violent resistance.

[46] The continuing success of the National Rifle Association

is frequently commented upon, but many observers jump to the misleading inference that the NRA is a lobby. For a recent instance, see Bob Secter and Karen Tumulty, "Victory Spotlights Power, Strategy of NRA Lobbyists," *Los Angeles Times*, 11 April 1986, pp. 1, 28. If they mean the term "lobby" broadly to include any group that attempts to influence public policy, then this inference is correct. But the narrower meaning of the term "lobby" restricts it to groups that attempt to influence public policy for *private pecuniary* benefit, such as when automobile manufacturers band together for import quotas. If the NRA represented mainly gun manufacturers, then it would be a lobby in this sense. But it clearly represents gun owners. Furthermore, these gun owners work assiduously to protect the right to gun ownership of the entire public. Like defense of the public generally, defense of the right to gun ownership is a public good with a very large public. Thus, according to public-goods theory, the NRA could never exist. It does no good to argue that many in the public do not care about their right to own guns. That only reinforces the free rider incentives *against* the NRA. Because now we are talking about not only a public good with a large public, but also a public good that most of the beneficiaries do not value highly. Yet, the efforts of the small number who do value this public good highly are enormously successful in its production.

[47] I am indebted to George Smith, "Thoughts on Unilateral Disarmament (unpubl. ms., 1982), for clarifying some of these terminological questions.

[48] Britain and the U.S. demilitarized the Great Lakes in the Rush-Bagot Treaty of 1817. The process of disarming the entire border was not complete until 1871, however. Both Philip Noel-Baker, *The Arms Race: A Programme for World Disarmament* (London: Atlantic Books, 1958), and Boulding, "The World War Industry as an Economic Problem," appreciate the significance of this example.

Economic studies of international relations that share these weaknesses include Lee, "The Soviet Economy and the Arms Control Delusion" and Tullock, *The Social Dilemma*. Most of the economic work in these areas has focused upon alliances. See for instance Mancur Olson, Jr., and Richard Zeckhauser, "Collective Goods, Comparative Advantage, and Alliance Efficiency," in Roland N. McKean, ed., *Issues in Defense Economics* (New York: National Bureau of Economic Research, 1967), pp. 25–63.

Tullock is a most egregious example, because on top of other problems his model simplistically assumes that military

protection always enjoys increasing returns to scale. He could profit greatly by incorporating some of the insights of Kenneth E. Boulding, *Conflict and Defense: A General Theory* (New York: Harper and Row, 1962), about the State's multi-dimensional force gradient, which degrades over distance, or of David Friedman, "A Theory of the Size and Shape of Nations," *Journal of Political Economy* 85 (February 1977): 59–77, about the limitations upon a nation's size arising from the State's desire to maximize tax revenues.

[49] See Jeffrey Rogers Hummel, "Deterrence vs. Disarmament," *Caliber* 9 (October/November 1981): 8–10; "On Defense," *Free World Chronicle* 2 (January/February 1984): 18–23; and "A Practical Case for Denationalizing Defense," *The Pragmatist* 3 (April 1986): 1, 8–10, and (June 1986).

[50] As Boulding, "The World War Industry as an Economic Problem," notes: "It is a striking testimony to the power of the underlying drive toward the ultimate payoffs of disarmament that in spite of two world wars, the hypocrisy of governments, and the weighing of the bargaining organization so strongly against it, the movement toward disarmament refuses to die" (p. 25).

I might also note that unilateral but total disarmament of the State has the advantage of being, like the total abolition of slavery in the past, a Schelling point, to use the obscure jargon of game theorists, and a particularly prominent Schelling point at that. On the importance of Schelling points to social change see Friedman, "Many, Few, One." This feature alone gives my policy a far higher probability of ever being practically implemented than something like the demand-revealing process for voting of public-goods theorists. Even trained economists have some difficulty clearly articulating the workings and benefits of the latter.

Karl Marx: Communist as Religious Eschatologist

Murray N. Rothbard

Marx as Millennial Communist

The key to the intricate and massive system of thought created by Karl Marx is at bottom a simple one: *Karl Marx was a communist*. A seemingly trite and banal statement set alongside Marxism's myriad of jargon-ridden concepts in philosophy, economics, and culture, yet Marx's devotion to communism was his crucial focus, far more central than the class struggle, the dialectic, the theory of surplus value, and all the rest. Communism was the great goal, the vision, the desideratum, the ultimate end that would make the sufferings of mankind throughout history worthwhile. History is the history of suffering, of class struggle, of the exploitation of man by man. In the same way as the return of the Messiah, in Christian theology, will put an end to history and establish a new heaven and a new earth, so the establishment of communism would put an end to human history. And just as for post-millennial Christians, man, led by God's prophets and saints, will establish a Kingdom of God on Earth (for pre-millennials, Jesus will have many human assistants in setting up such a kingdom), so, for Marx and other schools of communists, mankind, led by a vanguard of secular saints, will establish a secularized Kingdom of Heaven on earth.

In messianic religious movements, the millennium is invariably established by a mighty, violent upheaval, an Armageddon, a great apocalyptic war between good and evil. After this titanic conflict, a millennium, a new age, of peace and harmony, of the reign of justice, will be installed upon the earth.

Marx emphatically rejected those utopian socialists who sought to arrive at communism through a gradual and evolutionary process, through a steady advancement of the good. Instead, Marx harked back to the apocalyptics, the post-millennial coercive German and Dutch Anabaptists of the sixteenth century, to the millennial sects during the English Civil War, and to the various groups of pre-millennial Christians who

foresaw a bloody Armageddon at the last days, before the millennium could be established. Indeed, since the apocalyptic post-mils refused to wait for a gradual goodness and sainthood to permeate mankind, they joined the pre-mils in believing that only a violent apocalyptic final struggle between good and evil, between saints and sinners, could usher in the millennium. Violent, worldwide revolution, in Marx's version, to be made by the oppressed proletariat, would be the inevitable instrument for the advent of his millennium, communism.

In fact, Marx, like the pre-mils (or "millenarians"), went further to hold that the reign of evil on earth would reach a peak just before the apocalypse ("the darkness before the dawn"). For Marx as for the millenarians, writes Ernest Tuveson,

> The evil of the world must proceed to its height before, in one great complete root-and-branch upheaval, it would be swept away . . .
>
> Millenarian pessimism about the perfectibility of the existing world is crossed by a supreme optimism. History, the millenarian believes, so operates that, when evil has reached its height, the hopeless situation will be reversed. The original, the true harmonious state of society, in some kind of egalitarian order, will be re-established.[1]

In contrast to the various groups of utopian socialists, and in common with religious messianists, Karl Marx did not sketch the features of his future communism in any detail. It was not for Marx, for example, to spell out the number of people in his utopia, the shape and location of their houses, the pattern of their cities. In the first place, there is a quintessentially crackpotty air to utopias that are mapped by their creators in precise detail. But of equal importance, spelling out the details of one's ideal society removes the crucial element of awe and mystery from the allegedly inevitable world of the future.

But certain features are broadly alike in all visions of communism. Private property is eliminated, individualism goes by the board, individuality is flattened, all property is owned and controlled communally, and the individual units of the new collective organism are in some way made "equal" to one another.

Marxists and scholars of Marxism have tended to overlook the centrality of communism to the entire Marxian system.[2] In the "official" Marxism of the 1930s and 1940s, communism was

slighted in favor of an allegedly "scientific" stress on the labor theory of value, the class struggle, or the materialist interpretation of history, and the Soviet Union, even before Gorbachev, grappling with the practical problems of socialism, treated the goal of communism as more of an embarrassment than anything else.[3] Similarly, Stalinists such as Louis Althusser dismissed the pre-1848 Marx's stress on "humanism," philosophy, and "alienation," as unscientific and pre-Marxist. On the other hand, in the 1960s it became fashionable for new left Marxists such as Herbert Marcuse to dismiss the later "scientific economist" Marx as a rationalistic prelude to despotism and a betrayal of the earlier Marx's stress on humanism and human "freedom." In contrast, I hold with the growing consensus in Marxist studies[4] that, at least since 1844 and possibly earlier, there was only *one* Marx, that Marx the "humanist" established the goal that he would seek for the remainder of his life: the apocalyptic triumph of revolutionary communism. In this view, Marx's exploration later into the economics of capitalism was merely a quest for the mechanism, the "law of history," that allegedly makes such a triumph inevitable.

But in that case, it becomes vital to investigate the nature of this allegedly humanistic goal of communism, what the meaning of this the "freedom" might be, and whether or not the grisly record of Marxist-Leninist regimes in the twentieth century was implicit in the basic Marxian conception of freedom.

Marxism is a religious creed. This statement has been common among critics of Marx, and since Marxism is an explicit enemy of religion, such a seeming paradox would offend many Marxists, since it clearly challenged the allegedly hard-headed scientific materialism on which Marxism rested. In the present day, oddly enough, an age of liberation theology and other flirtations between Marxism and the Church, Marxists themselves are often quick to make this same proclamation. Certainly, one obvious way in which Marxism functions as a "religion" is the lengths to which Marxists will go to preserve their system against obvious errors or fallacies. Thus, when Marxian predictions fail, even though they are allegedly derived from scientific laws of history, Marxists go to great lengths to *change* the terms of the original prediction. A notorious example is Marx's law of the impoverishment of the working class under capitalism. When it became all too clear that the standard of living of the workers under industrial capitalism was rising instead of falling, Marxists fell back on the view that what Marx "really" meant by

impoverishment was not immiseration but *relative* deprivation. One of the problems with this fallback defense is that impoverishment is supposed to be the motor of the proletarian revolution, and it is difficult to envision the workers resorting to bloody revolution because they only enjoy one yacht apiece while capitalists enjoy five or six. Another notorious example was the response of many Marxists to Böhm-Bawerk's conclusive demonstration that the labor theory of value could not account for the pricing of goods under capitalism. Again, the fallback response was that what Marx "*really* meant"[5] was not to explain market pricing at all, but merely to assert that labor hours embed some sort of mystically inherent "values" into goods that are, however, irrelevant to the workings of the capitalist market. If this were true, then it is difficult to see why Marx labored for a great part of his life in an unsuccessful attempt to complete *Capital* and to solve the value-price problem.

Perhaps the most appropriate commentary on the frantic defenders of Marx's value theory is that of the ever witty and delightful Alexander Gray, who also touches on another aspect of Marx as religious prophet:

> To witness Böhm-Bawerk or Mr. [H. W. B.] Joseph carving up Marx is but a pedestrian pleasure; for these are but pedestrian writers, who are so pedestrian as to clutch at the plain meaning of words, not realising that what Marx really meant has no necessary connection with what Marx undeniably said. To witness Marx surrounded by his friends is, however, a joy of an entirely different order. For it is fairly clear that none of them really knows what Marx really meant; they are even in considerable doubt as to what he was talking about; there are hints that Marx himself did not know what he was doing. In particular, there is no one to tell us what Marx thought he meant by "value." *Capital* is, in one sense, a three-volume treatise, expounding a theory of value and its manifold applications. Yet Marx never condescends to say what he means by "value," which accordingly is what anyone cares to make it as he follows the unfolding scroll from 1867 to 1894. . . . Are we concerned with *Wissenschaft*, slogans, myths, or incantations? Marx, it has been said, was a prophet . . . and perhaps this suggestion

> provides the best approach. One does not apply to Jeremiah or Ezekiel the tests to which less inspired men are subjected. Perhaps the mistake the world and most of the critics have made is just that they have not sufficiently regarded Marx as a prophet—a man above logic, uttering cryptic and incomprehensible words, which every man may interpret as he chooses.[6]

Reabsorption Theology

But the nature of Marxism-as-religion cuts deeper than the follies and evasions of Marxists[7] or the cryptic and often unintelligible nature of Marxian writings. For it is the contention of this article that the crucial goal—communism—is an atheized version of a certain type of religious eschatology; that the alleged inevitable process of getting there—the dialectic—is an atheistic form of the same religious laws of history; and that the supposedly central problem of capitalism as perceived by "humanist" Marxists, the problem of "alienation," is an atheistic version of the selfsame religion's metaphysical grievance at the entire created universe.

As far as I know, there is no commonly-agreed upon name to designate this fatefully influential religion. One name is "process theology," but I shall rather call it "reabsorption theology," for the word "reabsorption" highlights the allegedly inevitable end-point of human history as well as its supposed starting point in a pre-creation union with God.

As Leszek Kolakowski points out in his monumental work on Marxism, reabsorption theology begins with the third-century Greek philosopher Plotinus, and moves from Plotinus to some of the Christian Platonists, where it takes its place as a Christian heresy. That heresy tends to bubble up repeatedly from beneath the surface in the works of such Christian mystics as the nineteenth-century philosopher John Scotus Erigena and the fourteenth-century Meister Johannes Eckhart.[8]

The nature and profound implications of reabsorption theology may best be grasped by contrasting this heresy to Christian orthodoxy. We begin at the beginning—with *creatology*, the science or discipline of the first days. Why did God create the universe? The orthodox Christian answer is that God created the universe out of a benevolent and overflowing love for his creatures. Creation was therefore good and wondrous; the fly in

the ointment was introduced by man's disobedience to God's laws, for which sin he was cast out of Eden. Out of this Fall he can be redeemed by the Incarnation of God-in-human flesh and the sacrifice of Jesus on the Cross. Note that the Fall was a moral one, and that Creation itself remains metaphysically good. Note, too, that in orthodox Christianity, each human individual, made in the image of God, is of supreme importance, and each individual's salvation becomes of critical concern.

Reabsorption theology, however, originates in a very different creatology. One of its crucial tenets is that, *before* Creation, man—obviously the collective-species man and not each individual—existed in happy union, in some sort of mighty cosmic blob, united with God and even with Nature. In the Christian view, God, unlike man, is perfect, and therefore does not, like man, perform actions in order to improve his lot. But for the reabsorptionists, God acts analogously with humans: God acts out of what Mises called "felt uneasiness," out of dissatisfaction with his current lot. God, in other words, creates the universe out of loneliness, dissatisfaction, or, generally, in order to develop his undeveloped faculties. God creates the universe out of felt need.

In the reabsorptionist view, Creation, instead of being wondrous and good, is essentially and metaphysically evil. For it generates diversity, individuality, and separateness, and thereby cuts off man from his beloved cosmic union with God. Man is now permanently "alienated" from God, the fundamental alienation; and also from other men, and from nature. It is this cosmic metaphysical separateness that lies at the heart of the Marxian concept of "alienation," and *not*, as we might now think, personal griping about not controlling the operation of one's factory, or about lack of access to wealth or political power. Alienation is a cosmic condition and not a psychological complaint. For the reabsorptionists, the crucial problems of the world come not from moral failure but from the essential nature of creation itself.

Buddhism and various pantheistic religions, as well as many mystics, offer one partial way out for this cosmic alienation. To such pantheists, God-Man-and-Nature are and continue to be one, and individual men can recapture that desired unity by various forms of training until Nirvana (nothingness) has been achieved and the individual ego has been—at least temporarily—obliterated.[9]

But the Way Out offered by the reabsorptionists is different.

First, it is a way offered only to man-as-species and not to any particular individuals; and second, the way is a religiously determined and inevitable Law of History. For there is one good aspect of creation, for the reabsorptionists: that God and man each get to fulfill their faculties and expand their respective potentials through history. In fact, history is a process by which these potentials are fulfilled, in which God and man both perfect themselves. Then, finally, and here we come to *eschatology*, the science of the Last Days, there will eventually be a mighty reunion, a reabsorption, in which man and God are at last not only reunited, but reunited on a higher, on a perfected level. The two cosmic blobs—God and man (and presumably Nature too)—now meet and merge on a more exalted level. The painful state of creation is now over, alienation is at last ended, and man returns Home to be on a higher, post-creation level. History, and the world, have come to an end.

A crucial feature of reabsorption is that all this "perfecting" and "reuniting" obviously takes place only on a species-collectivist level. The individual man is nothing, a mere cell in the great collective organism man; only in that way can we say that "man" progresses or fulfills "himself" over the centuries, suffers alienation from "his" pre-creation state, and finally "returns" to unity with God on a higher level. The relation to the Marxian goal of communism is already becoming clear; the "alienation" eliminated by the inevitable communist end of history is that of the collective species man, each man being finally united with other men and with Nature (which, for Marx, was "created" by the collective species man, who thereby replaces God as the creator).

I shall deal later with communism as the goal of history. Here we focus on the *process* by which all these events must take place, and necessarily take place. First, there is the pre-creation cosmic blob. Out of this blob there then arises a very different state of affairs: a created Universe, with God, individual men, and nature each existing. Here are the origins of the magical Hegelian-Marxian "dialectic": one state of affairs somehow *gives rise to* a contrasting state. In the German language, Hegel, the master of the concept of the dialectic, used the crucial term *aufhebung*, a "lifting up," which is ambiguous enough to encompass this sudden shift into a very different state, this lifting up which is at one and the same time a preserving, a transcending, and creating a stark contrast to, the original condition. The standard English translation for this process in

Hegel and Marx is "negating," but such translation makes the theory even more absurd than it really is—probably "transcending" would be a better term.[10] Thus, as usual, the dialectic consists of three stages. Stage One is the original state of the pre-creation cosmic blob, with man and God in happy and harmonious unity, but each rather undeveloped. Then, the magic dialectic does its work, Stage Two occurs, and God creates man and the universe. But then, finally, when the development of man and God is completed, Stage Two creates its own *aufhebung*, its transcendence into its opposite or negation: in short, Stage Three, the reunion of God and man in an "ecstasy of union," and the end of history.

The dialectical process by which one state of affairs gives rise to a very different state, if not its opposite, is, for the reabsorptionists, a mystical though inevitable development. There was no need for them to explain the mechanism. Indeed, particularly influential for Hegel and later reabsorptionist thinkers was one of the later Christian mystics in this tradition: the early seventeenth century German cobbler Jakob Boehme. Pantheizing the dialectic, Boehme declared that it was not God's will but some primal force, that launched the cosmic dialectic of creation and history. How, Boehme asked, did the world of pre-creation transcend itself into creation? Before creation, he answered, there was a primal source, an eternal unity, an undifferentiated, indistinct, literal Nothing [*Ungrund*]. Oddly enough, this Nothing possessed within itself an inner striving, a *nisus*, a drive for self-realization. That drive, Boehme asserted, gave rise to its opposite, the Will, the interaction of which with *nisus* transformed the Nothing into the Something of the created universe.[11]

Heavily influenced by Jakob Boehme was the mystical English communist, Gerrard Winstanley, founder of the Digger sect during the English Civil War. Son of a textile merchant who had failed in the cloth business and then had sunk to the status of agricultural laborer, Winstanley, in early 1649, had a mystical vision of the ideal communist world of the future. Originally, according to this vision, a version of God had created the universe; but the spirit of "selfishness," the Devil itself, had entered into man and brought about private property and a market economy. The curse of the self, opined Winstanley, was "the beginner of particular interest," or private property, with men buying and selling and saying "This is mine." The end of original communism and its breakup into private property meant

that universal liberty was gone, and creation brought "under the curse of bondage, sorrow, and tears." In England, Winstanley absurdly held, property had been communist until the Norman Conquest of 1066, which created the institution of private property.[12]

But soon, declared Winstanley, universal "love" would eliminate private property, and would thus restore the earth to "a common property as it was in the beginning . . . making the earth one storehouse, and every man and woman to live . . . as members of one household." This communism and absolute equality of possessions would thus bring to the world the millennium, "a new heaven, and a new earth."[13]

At first, Winstanley believed that little or no coercion would be necessary for establishing and maintaining his communist society. Soon, however, he realized, in the completed draft of his utopia, that all wage labor and all commerce would have to be prohibited on the penalty of death. Winstanley was quite willing to go this far with his program. Everyone was to contribute to, and take from, the common storehouse, and the death penalty was to be levied on all use of money, or on any buying or selling. The "sin" of idleness would of course be combatted by forced labor for the benefit of the communist community. This all-encompassing stress on the executioner makes particularly grisly the declaration of Winstanley that "all punishments that are to be inflicted . . . are only such as to make the offender . . . to live in the community of the righteous law of love one with another." Education in "love" was to be insured by free and compulsory schooling conducted by the state, mainly in useful crafts rather than in liberal arts, as well as by "ministers" elected by the public to preach secular sermons upholding the new system.[14]

Hegel as Pantheist Reabsorptionist

Everyone knows that Marx was essentially a Hegelian in philosophy, but the precise scope of Hegel's influence on Marx is less well-understood. Hegel's dubious accomplishment was to completely pantheize reabsorption theology. It is little realized that Hegel was only one, although the most elaborate and hypertrophic, of a host of writers who constituted the highly influential Romantic movement in Germany and England at the end of the eighteenth, and during the first half of the nineteenth, centuries.[15] Hegel was a theology student at the University of Tübingen, and many of his fellow Romantics, friends and

colleagues, such as Schelling, Schiller, Holderlin, and Fichte, began as theology students, many of them at Tübingen.[16]

The Romantic twist to the reabsorption story was to proclaim that God is in reality Man. Man, or rather the Man-God, created the universe. But Man's imperfection, his flaw, lay in his failure to realize that he *is* God. The Man-God begins his life in history unconscious of the vital fact that he is God. He is alienated, cut off, from the crucial knowledge that he and God are one, that he created, and continues to empower, the universe. History, then, is the inevitable process by which the Man-God develops his faculties, fulfills his potential, and advances his knowledge, *until* that blissful day when Man acquires Absolute Knowledge, that is, the full knowledge and realization that he is God. At that point, the Man-God finally reaches his potential, becomes an infinite being without bounds, and thereby puts an end to history. The dialectic of history occurs, again, in three fundamental stages: the Pre-Creation stage; the post-Creation stage of development with alienation; and the final reabsorption into the state of infinity and absolute self-knowledge, which culminates, and puts an end to, the historical process.

Why, then, did Hegel's Man-God (also termed by Hegel the "world-self" or "world-spirit" [*Weltgeist*]) create the universe? Not out of benevolence, but out of a felt need to become conscious of itself as a world-self. This process of growing consciousness is achieved through the creative activity by which the world-self externalizes itself. First, this externalization occurs by the Man-God creating nature, and next, by a continuing self-externalization through human history. By building civilization, Man increases the knowledge of his own divinity; in that way, through history Man gradually puts an end to his own "self-alienation," which for Hegel was *ipso facto* the alienation of Man from God. Crucial to Hegelian doctrine is that Man is alienated, and he perceives the world as hostile, *because* it is not himself. All these conflicts are finally resolved when Man realizes at long last that the world really *is* himself.

But why is Hegel's Man so odd and neurotic that he regards everything that is not himself as alien and hostile? The answer is central to the Hegelian mystique. It is because Hegel, or Hegel's Man, cannot stand the idea of himself not being God, and therefore not being of infinite space and without boundary or limit. Seeing any other being or any other object exist, would imply that he himself is not infinite or divine. In short, Hegel's

philosophy constitutes solipsistic megalomania on a grand and cosmic scale. Professor Robert C. Tucker describes the situation with characteristic acuity:

> For Hegel alienation is finitude, and finitude in turn is bondage. The experience of self estrangement in the presence of an apparent objective world is an experience of enslavement, . . . Spirit, when confronted with an object or "other," is *ipso facto* aware of itself as merely finite being . . . as extending only so far and no farther. The object is, therefore, a "limit" (*Grenze*). And a limit, since it contradicts spirit's notion of itself as absolute being, i.e. being-without-limit, is necessarily apprehended as a "barrier" or "fetter" (*Schranke*). . . . In its confrontation with an apparent object, spirit feels imprisoned in limitation. It experiences what Hegel calls the "sorrow of finitude."
>
> . . . In Hegel's quite unique conception of it, freedom means the consciousness of self as unbounded; it is the absence of a limiting object or non-self . . .
>
> Accordingly, the growth of spirit's self-knowledge in history is alternatively describable as a progress of the consciousness of freedom.[17]

Hegel's dialectic of history did not simply have three stages; history moved forward in a series of stages, each one of which was moved forward dramatically by a process of *aufhebung*. It is evident that the Man who creates the world, advances his "self"-knowledge, and who finally "returns" "Home" in an ecstasy of self-knowledge is not puny individual Man, but Man as collective-species. But, for Hegel, each stage of advance is propelled by great individuals, "world-historical" men, who embody the attributes of the Absolute more than others, and act as significant agents of the next *aufhebung*, the lifting up of the Man-God's or "world-soul's" next great advance into "self-knowledge."

Thus, at a time when most patriotic Prussians were reacting violently against Napoleon's imperial conquests, and mobilizing their forces against him, Hegel wrote to a friend in ecstasy about having seen Napoleon, "the Emperor—this world-soul" riding down the street; for Napoleon, even if unconsciously, was pursuing the world-historical mission of bringing a strong

Prussian State into being.[18] It is interesting that Hegel got his idea of the "cunning of Reason," of great individuals acting as unconscious agents of the world-soul through history by perusing the works of the Rev. Adam Ferguson, whose phrase about events being "the product of human action but not of human design," has been so influential in the thought of F. A. Hayek and his disciples.[19] In the economic realm, as well, Hegel learned of the alleged misery of alienation in separation—that is specialization and the division-of-labor, from Ferguson himself through Friedrich Schiller and from Ferguson's good friend, Adam Smith, in his *Wealth of Nations*.[20]

It is easy to see how the reabsorptionist-Hegelian doctrine of unity-good, separation-bad, helped form the Marxian goal of communism, the end-state of history in which the individual is totally absorbed into the collective, thus attaining the state of true collective-man "freedom." But there are also more particular influences. Thus, the Marxian idea of early or primitive communism, happy and integrated though undeveloped, and then burst apart by rapacious, alienating if developing capitalism, was prefigured by Hegel's historical outlook. Following his friend and mentor the Romantic writer Friedrich Schiller, Hegel, in an article written in 1795, lauded the alleged homogeneity, harmony, and unity of ancient Greece, supposedly free of the alienating division of labor. The consequent *aufhebung*, though leading to the growth of commerce, living standards, and individualism, also destroyed the wonderful unity of Greece and radically fragmented man. To Hegel, the next inevitable stage of history would reintegrate man and the State.

The State was critical for Hegel. Again foreshadowing Marx, it is now particularly important for man—the collective organism—to surmount unconscious blind fate, and "consciously" to take control of his "fate" by means of the State.

Hegel was quite insistent that, in order for the State to fulfill its vital function, it must be guided by a comprehensive philosophy, and indeed by a Great Philosopher, to give its mighty rule the necessary coherence. Otherwise, as Professor Plant explains, "such a state, devoid of philosophical comprehension, would appear as a merely arbitrary and oppressive imposition of the freedom of individuals." But, on the contrary, if armed with Hegelian philosophy and with Hegel himself as its great leader, "this alien aspect of the progressive modern state would disappear and would be seen not as an imposition but a development of self-consciousness."[21]

Armed, then, with such a philosophy and such a philosopher, the modern, especially the modern Prussian, State could take its divinely-appointed stand at the apex of human history and civilization, as God on earth. Thus: "The modern State, . . . when comprehended philosophically, could therefore be seen as the highest articulation of Spirit, or God in the contemporary world." The State, then, is "a supreme manifestation of the activity of God in the world"; "The State is the Divine Idea as it exists on earth"; "The State is the march of God through the world"; "The State is the actually existing, realized moral life"; the "State is the reality of the kingdom of heaven." And finally: "The State is God's Will."[22]

For Hegel, of all the various forms of State, monarchy—as in contemporary Prussia—is best, since it permits all its subjects to be "free" (in the Hegelian sense) by submerging their being into the divine substance, which is the authoritarian, monarchial State. The people are only "free" as insignificant particles of this divine substance. As Tucker writes:

> Hegel's conception of freedom is totalitarian in a literal sense of the word. The world-self must experience itself as the totality of being, or in Hegel's own words must elevate itself to a "self-comprehending totality," in order to achieve the consciousness of freedom.[23]

Every determinist creed thoughtfully provides an escape hatch for the determinist himself, so that he can rise above the determining factors, expound his philosophy and convince his fellowmen. Hegel was no exception, but his was unquestionably the most grandiose of all escape-hatches. For of all the world-historical figures, those embodiments of the Man-God, who are called on to bring on the next stage of the dialectic, who can be greater, more in tune with the divinity, than the Great Philosopher himself who has brought us the knowledge of this entire process, and thereby was able to himself complete man's final comprehension of the Absolute and of man's all-encompassing divinity? And isn't the great creator of the crucial philosophy about man and the universe in a deep sense greater than the philosophy itself? And therefore, if the species man is God, isn't he, the great Hegel, in a profound sense God of Gods? [24] Finally, as luck and the dialectic would have it, Hegel was just in time to take his place as the Great Philosopher, in the greatest, the noblest, and most developed authoritarian State in

the history of the world: the existing Prussian monarchy of King Friedrich Wilhelm III. If the King would only accept his world-historical mission, Hegel, arm-in-arm with the King, would then usher in the final culminating self-knowledge of the Absolute Man-God. Together, Hegel, aided by the King, would bring an end to human history.

For his part, King Friedrich Wilhelm III was all too ready to play his divinely appointed role. When the reactionary powers took over Prussia in 1815, they needed an official philosopher to call on Prussian subjects to worship the State, and thereby to combat the French Revolutionary ideals of individualism, liberty, reason, and natural rights. Hegel was brought to the great new University of Berlin in 1818, to become the official philosopher of that academic monument to the authoritarian Prussian State.

While highly influential in Prussia and the Protestant sectors of Germany, Hegelianism was also akin to, and influential upon, the Romantic writers in England. Virtually all of Wordsworth's poetic output was designed to set forth what he called a "high Romantic argument" designed to transcend and counteract Milton's "heroic" or "great" argument expounding the orthodox Christian eschatology, that man, as individual men, will either return to Paradise or be consigned to Hell upon the Second Advent of Jesus Christ. To this "argument," Wordsworth counterposed his own pantheist vision of the upward spiral of history in which Man, as species, inevitably returns home from his cosmic alienation. Also dedicated to the Wordsworthian vision were Coleridge, Shelley and Keats. It is instructive that all of these men were Christian heretics, converts from explicitly Christian theology: Wordsworth had been trained to be an Anglican priest; Coleridge had been a lay preacher, and was steeped in neo-Platonism and the mystical works of Jakob Boehme; and Shelley had been absorbed in the study of the Bible.

Finally, the tempestuous conservative statist British writer, Thomas Carlyle, paid tribute to Hegel's mentor Friedrich Schiller by writing a biography of Schiller in 1825. From then on, Carlyle's influential writings were to be steeped in the Hegelian vision. Unity is good, diversity and separateness is evil and diseased; science as well as individualism constitutes division and dismemberment. Selfhood, Carlyle ranted, is alienation from nature, from others, and from oneself. But one day, Carlyle prophesied, the breakthrough, the world's spiritual rebirth, will arrive, led by world-historical figures ("great men"), through

which man will return home to a friendly world by means of the utter "annihilation of self" (*Selbst-todtung*).[25] Finally, in *Past and Present* (1843), Carlyle applied his profoundly anti-individualist vision to economic affairs. He denounced egoism, material greed, and laissez-faire, which, by fostering man's severance from others, had led to a world "which has become a lifeless other, and in severance also from other human beings within a social order in which 'cash payment is . . . the sole nexus of man with man.'" In opposition to this evil "cash nexus" lay the familial relation with nature and fellow-men, the relation of "love." The stage was set for Karl Marx.[26]

Communism as the Kingdom of God on Earth: From Joachim to Müntzer

So far we have dealt with reabsorption theology as a crucial forerunner of Marx's religious eschatological communism. But there is another important strand sometimes woven in with the first, fused into his eschatological vision: messianic millennialism, or chiliasm, the establishing of a communist Kingdom of God on Earth.

Throughout its history, Christianity has had to confront the question of the millennium: the thousand-year reign of God on earth. Particularly in such murky parts of the Bible as the book of *Daniel* and the book of *Revelation*, there are suggestions of such a millennial Kingdom of God on Earth before the final Day of Judgment and the end of human history. The orthodox Christian line was set by the great Saint Augustine in the early fifth century, and has been accepted ever since by the mainstream Christian churches: Roman Catholic, Lutheran, and arguably by Calvin and at least by the Dutch wing of the Calvinist church. That orthodox line holds that the millennial Kingdom of God on Earth [KGE] is strictly a metaphor for the Christian Church, which reigns on earth only in the spiritual sense. The material realization of the Kingdom of God will only arrive upon the Day of Judgment, and is therefore to be confined to heaven alone. Orthodox Christians have always warned that taking the KGE literally, what the late orthodox Christian theorist Erich Voegelin called "immanentizing the eschaton"—bringing the eschaton down to earth—is bound to create grave social problems. For one thing, most versions of how the KGE will come into being are apocalyptic. The KGE is to be preceded by a mighty Armageddon, a titanic war of good against evil, in which the

good will finally, though inevitably, triumph. One reason for the apocalypse is a fundamental problem faced by all KGE theorists. The KGE, by definition, will consist of a society of saints, of perfect people. But if this is true, what has become of the host of human sinners, of whom alas there are legion? In order to establish the KGE there must first be some sort of mighty apocalyptic purge of the sinners to clear the ground for the society of saints. "Pre-millennial" and "post-millennial" variants of apocalyptics accomplish this task in different ways. The pre-mils, who believe that Jesus's Second Advent will precede the KGE, and that Jesus will run the Kingdom with the cadre of saints at his right hand, achieve the purge by a divinely determined Armageddon between God's forces and the forces of the Beast and the Anti-Christ. The post-mils, who believe that man must establish the KGE as a precondition of Jesus's Second Coming, have to take matters more directly in their own hands and accomplish the great purge on their own.

Thus, one disturbing aspect of the KGE is the preparatory purgation of the host of human sinners. A second problem is what the KGE is going to look like. As we might imagine, KGE theorists have been extremely cloudy about the nature of their perfect society, but one troublesome feature is that, to the extent that we know its operations at all, the KGE is almost always depicted as a communist society, lacking work, private property, or the division of labor. In short, something like the Marxian communist utopia, except run by a cadre, not of the vanguard of the proletariat, but of theocratic saints.

Any communist system faces the problem of production: who would have the incentive to produce for the communal storehouse, and how would this work and its products be allocated? The first, and most highly influential, communist Christian heretic was the late twelfth-century Calabrian abbot and hermit, Joachim of Fiore. Joachim, who almost managed to convert three popes to his heresy, adopted the thesis that there are destined to be in history, not just two Ages (pre and post-Christian) as orthodox Christians believe, but a Third Age a-borning, of which he was the prophet. The pre-Christian era was the age of the Father, of the Old Testament; the Christian era the age of the Son, the New Testament. And now arrives the third apocalyptic age of the Holy Spirit, to be ushered in during the next half-century, an age of pure love and freedom, in which history was to come to an end. The Church, the Bible, and the State would be swept away, and man would live in a free

communist community without work or property.

Joachim dispensed with the problem of production and allocation under communism very neatly and effectively, more so than any communist successor. In the Third Age, he declared, man's material bodies will disappear, and man will be pure spirit, free to spend all of his days in mystical ecstasy chanting praises to God for a thousand years until the Day of Judgment. Without physical bodies, there is of course precious little need for production.[27] For Joachim, the path to this kingdom of pure spirit would be blazed by a new order of highly spiritual monks, from whom would come 12 patriarchs headed by a supreme teacher, who would convert the Jews to Christianity as foretold in the book of *Revelation*. For a blazing three and a half years a secular king, the Antichrist, would crush and destroy the corrupt Christian Church, after which the Antichrist would be overthrown by the new monastic order, who would promptly establish the millennial age of the Spirit. It is no wonder that a rigorist wing of the Franciscan order, which was to emerge during the first half of the thirteenth century, and be dedicated to material poverty, should see themselves as the coming Joachimite cadre.

At the same period, the Amaurians, led by a group of theology students of Amalric at the University of Paris, carried on the Joachimite doctrine of the three Ages, and added an interesting twist: each age, they declared, has enjoyed its own Incarnation. In the age of the Old Testament, the divine Incarnation settled in Abraham and perhaps some other patriarchs; for the New Testament age, the Incarnation was of course Jesus; and now, for the dawning Age of the Holy Spirit, the Incarnation would emerge among the various human beings themselves. As might be expected, the Amaurian cadre proclaimed themselves to be living gods, the Incarnation of the Holy Spirit. Not that they would always remain a divine elite, among men; on the contrary, they were destined to be the vanguard, leading mankind to its universal Incarnation.

During the following century, a congeries of groups throughout northern Europe known as the Brethren of the Free Spirit added another important ingredient to this brew: the mystical dialectic of the "reabsorption into God." But the brethren added their own elitist twist: while the reabsorption of all men must await the end of history, and the mass of the "crude in spirit" must meanwhile meet their individual deaths, there was a glorious minority, the "subtle in spirit," who could and did

become reabsorbed and therefore living gods during their lifetime. This minority, of course, was the cadre of the Brethren themselves, who, by virtue of years of training, self-torture, and visions had become perfect gods, more perfect and more godlike than even Christ himself. Furthermore, once this stage of mystical union was reached, it was to be permanent and eternal. These new gods, in fact, often proclaimed themselves greater than God himself.

Being living gods on earth brought a lot of good things in its wake. In the first place, it led directly to an extreme form of the antinomian heresy; that is, if people are gods, then it is impossible for them to sin. Whatever they did is necessarily moral and perfect. This means that any act ordinarily considered to be sin, from adultery to murder, becomes perfectly legitimate when performed by the living gods. Indeed, the Free Spirits, like other antinomians, were tempted to demonstrate and flaunt their freedom from sin by performing all manner of sins imaginable.

But there was also a catch. Among the Free Spirit cultists, only a minority of leading adepts were "living gods"; for the rank-and-file cultists, striving to become gods, there was one sin and one alone which they must not commit: disobedience to their master. Each disciple was bound by an oath of absolute obedience to a particular living god. Take, for example, Nicholas of Basle, a leading Free Spirit whose cult stretched most of the length of the Rhine. Claiming to be the new Christ, Nicholas held that everyone's sole path to salvation consisted of making an act of absolute and total submission to Nicholas himself. In return for this total fealty, Nicholas granted his followers freedom from all sin.

As for the rest of mankind outside the cults, they were simply unredeemed and unregenerate beings who existed only to be used and exploited by the Elect. This gospel of total rule went hand in hand with the social doctrine of many of the fourteenth century cults of the Free Spirit: a communistic assault on the institution of private property. In a sense, however, this philosophic communism was merely a thinly camouflaged cover for the Free Spirits' self-proclaimed right to commit theft at will. The Free Spirit adept, in short, regarded all property of the non-Elect as rightfully his own. As the Bishop of Strasbourg summed up this creed in 1317: "They believe that all things are common, whence they conclude that theft is lawful for them." Or as the Free Spirit adept from Erfurt, Johann Hartmann, put it: "The truly free man is king and lord of all creatures. All things belong

to him, and he has the right to use whatever pleases him. If anyone tries to prevent him, the free man may kill him and take his goods."[28] As one of the favorite sayings of the Brethren of the Free Spirit phrased it: "Whatever the eye sees and covets, let the hand grasp it."

The following century, the fifteenth, brought the first attempt to initiate the KGE, the first brief experiment in totalitarian theocratic communism. This attempt originated in the left, or extreme, wing, of the Taborites, which in turn constituted the radical wing of the revolutionary Hussite movement in Czech Bohemia of the early fifteenth century. The Hussite movement, led by Jan Hus, was a pre-Protestant revolutionary formation that blended struggles of religion (Hussite vs. Catholic), nationality (popular Czech vs. upper-class and upper-clergy German), and class (artisans cartelized in urban guilds trying to take political power from patricians). Building on the previous communist KGE movements, and especially on the Brethren of the Free Spirit, the ultra-Taborites added, with considerable enthusiasm, one extra ingredient: the duty to exterminate. For the Last Days are coming, and the Elect must go forth and stamp out sin by exterminating all sinners, which means, at the very least, all non-ultra-Taborites. For all sinners are enemies of Christ, and "accursed be the man who withholds his sword from shedding the blood of the enemies of Christ. Every believer must wash his hands in that blood." This destruction was of course not to stop at intellectual eradication. When sacking churches and monasteries, the Taborites took particular delight in destroying libraries and burning books. For "all belongings must be taken away from God's enemies and burned or otherwise destroyed." Besides, the Elect have no need of books. When the Kingdom of God on Earth arrived, there would no longer be "need for anyone to teach another. There would be no need for books or scriptures, and all worldly wisdom will perish." And all people too, one suspects.

The ultra-Taborites also wove in the reabsorption theme: a return to the alleged early condition of Czech communism: a society lacking the sin of private property. In order to return to this classless society, determined the Taborites, the cities, those notorious centers of luxury and avarice, must be exterminated. And once the communist KGE had been established in Bohemia, the Elect must forge out from that base and impose such communism on the rest of the world.

The Taborites also added another ingredient to make their

communist ideal consistent. In addition to the communism of property, women would also be communized. The Taborite preachers taught that "Everything will be common, including wives; there will be free sons and daughters of God and there will be no marriage as union of two—husband and wife."

The Hussite revolution broke out in 1419, and in that same year, the Taborites gathered at the town of Usti, in northern Bohemia near the German border. They renamed Usti "Tabor," i.e., the Mount of Olives where Jesus had foretold his Second Coming, was ascended to heaven, and where he was expected to reappear. The radical Taborites engaged in a communist experiment at Tabor, owning everything in common, and dedicated to the proposition that "whoever owns private property commits a mortal sin." True to their doctrines, all women were owned in common, and if husband and wife were ever seen together, they were beaten to death or otherwise executed. Characteristically, the Taborites were so caught up in their unlimited right to consume from the common store that they felt themselves exempt from the need to work. The common store soon disappeared, and then what? Then, of course, the radical Taborites claimed that their need entitled them to claim the property of the non-elect, and they proceeded to rob others at will. As a synod of the moderate Taborites complained: "many communities never think of earning their own living by the work of their hands but are only willing to live on other people's property and to undertake unjust campaigns for the sake of robbing." Moreover, the Taborite peasantry who had rejoiced in the abolition of feudal dues paid to the Catholic patricians, found the radical regime reimposing the same feudal dues and bonds only six months later.

Discredited among their moderate allies and among their peasantry, the radical communist regime at Usti/Tabor soon collapsed. But their torch was quickly picked up by a sect known as the Bohemian Adamites. Like the Free Spirits of the previous century, the Adamites held themselves to be living gods, superior to Christ, since Christ had died while they still lived (impeccable logic, if a bit short-sighted). For the Adamites, led by a peasant leader they dubbed "Adam-Moses," all goods were owned strictly in common, and marriage was considered a heinous sin. In short, promiscuity was compulsory, since the chaste were unworthy to enter the messianic Kingdom. Any man could choose any woman at will, and that will would have to be obeyed. On the other hand, promiscuity was at one and the same time compulsory and

severely restricted; since sex could only take place with the permission of the leader Adam-Moses. The Adamites added a special twist: they went around naked most of the time, imitating the original state of Adam and Eve.

Like the other radical Taborites, the Adamites regarded it as their sacred mission to exterminate all the unbelievers in the world, wielding the sword, in one of their favorite images, until blood floods the world up to the height of a horse's bridle. The Adamites were God's scythe, sent to cut down and eradicate the unrighteous.

Pursued by the Hussite military commander, Jan Zizka, the Adamites took refuge on an island in the river Nezarka, from which they went forth in commando raids to try their best, despite their relatively small number, to fulfill their twin pledge of compulsory communism and extermination of the non-elect. At night, they raided the mainland—in forays they called a "Holy War"—to rob everything they could lay their hands on and to exterminate their victims. True to their creed, they murdered every man, woman, and child they could find.

Finally, in October 1421, Zizka sent a force of 400 hundred trained soldiers to besiege the Adamite island, soon overwhelming the commune and massacring every last Adamite. One more hellish Kingdom of God on Earth had been put to the sword.

The moderate Taborite army was, in turn, crushed by the Hussites at the Battle of Lipan in 1434, and from then on, Taborism declined and went underground. But Taborite and millennialist ideas continued to pop up, not only among the Czechs, but also in Bavaria and in other German lands bordering Bohemia.

Sometimes Martin Luther must have felt that he had loosed the whirlwind, even opened the Gates of Hell. Shortly after Luther launched the Reformation, Anabaptist sects appeared and spread throughout Germany. Anabaptists believed that they were the Elect, and that the sign of that election was an emotional, mystical conversion experience, the process of being "born again," or baptized in the Holy Spirit. For groups of the Anabaptist elect finding themselves within a corrupt and sinful society, there were two routes to take. One, the voluntary Anabaptists, such as the Amish or Mennonites, became virtual anarchists, striving to separate themselves as much as possible from a sinful State and society. The other wing, the theocratic Anabaptists, sought to seize power in the State and to shape up

society by extreme coercion. As Monsignor Knox has pointed out, this ultra-theocratic approach must be distinguished from the sort of theocracy (what has recently been called *theonomy*—the rule of God's Law) imposed by Calvin in Geneva or by the Calvinistic Puritans in the seventeenth century North America. Luther and Calvin, in Knox's terminology, did not pretend to be "prophets" enjoying continuing personal divine revelation; they were only "pundits," scholarly experts in interpreting the Bible, and in applying Biblical law to man.[29] But the coercive Anabaptists were led by men claiming mystical illumination and revelation and deserving therefore of absolute power.

The wave of theocratic Anabaptism that swept over Germany and Holland with hurricane force may be called the "Müntzer-Münster era," since it was launched by Thomas Müntzer in 1520, and ended in a holocaust at the city of Münster 15 years later. A learned young theologian and graduate of the Universities of Leipzig and Frankfurt, Müntzer was selected by Luther to become a Lutheran pastor in the city of Zwickau. Zwickau, however, was near the Bohemian border, and there Müntzer was converted by the weaver and adept Niklas Storch, who had lived in Bohemia, to the old Taborite creed. In particular: continuing personal divine revelation to the prophet of the cult, and the necessity for the elect to seize power and impose a society of theocratic communism by brutal force of arms. In addition, there was to be communism of women: marriage was to be prohibited, and each man was to be able to have any woman at will.

Thomas Müntzer now claimed to be the divinely chosen prophet, destined to wage a war of blood and extermination by the elect against the sinners. Müntzer claimed that the "living Christ" had permanently entered his own soul; endowed thereby with perfect insight into the divine will, he asserted himself to be uniquely qualified to fulfill the divine mission. He even spoke of himself as "becoming God." Having graduated from the world of learning, Müntzer was now ready for the world of action.

Müntzer wandered around central Germany for several years, gaining adepts and inspiring uprisings that were quickly suppressed. Gaining a ministerial post in the small Thuringian town of Allstedt, Müntzer gained a wide popular following by preaching in the vernacular, attracting a large number of uneducated miners, whom he formed into a revolutionary organization called "The League of the Elect." A turning point in Müntzer's career came in 1524, when Duke John, brother of the

Elector of Saxony and a Lutheran, came to town and asked Müntzer to preach him a sermon. Seizing his opportunity, Müntzer laid it on the line: the Saxon princes must take their stand as either servants of God or of the Devil. If they would do the former, they must "lay on with the sword" to "exterminate" all the "godless" and "evil-doers," especially including priests, monks, and godless rulers. If the Saxon princes failed in this task, Müntzer warned, "the sword shall be taken from them. . . . If they [the princes] resist, let them be slaughtered without mercy. . . ." Such extermination, performed by the princes and guided by Müntzer, would usher in a thousand-year-rule by the Elect.

Duke John's reaction to this fiery ultimatum was surprisingly blasé, but, warned repeatedly by Luther that Müntzer was becoming dangerous, the Duke finally ordered Müntzer to refrain from any provocative preaching until his case was decided by the Elector.

This reaction by the Saxon princes, however mild, was enough to set Thomas Müntzer onto his final revolutionary road. The princes had proved themselves untrustworthy: it was now up to the mass of the poor to make the revolution. The poor, the Elect, would establish a rule of compulsory egalitarian communism, where all things would be owned in common by all, where everyone would be equal in all things and each person would receive according to his need. But not yet. For even the poor must first be broken of worldly desires and frivolous enjoyments, and they must recognize the leadership of a new "servant of God" who "must stand forth in the spirit of Elijah . . . and set things in motion." It was not difficult to guess who that Leader was supposed to be.

Seeing Allstedt as inhospitable, Müntzer moved to the Thuringian city of Muhlhausen, where he found a friendly home in a land in political turmoil. Under Müntzer's inspiration, a revolutionary group took over Muhlhausen in February 1525, and Müntzer and his allies proceeded to impose a communist regime upon that city.

The monasteries of Muhlhausen were seized, and all property was declared to be in common; as a consequence, as a contemporary observer noted, the regime "so affected the folk that no one wanted to work." As under the Taborites, the regime of communism and love soon became, in practice, a systemic excuse for theft:

> when anyone needed food or clothing he went to a

> rich man and demanded it of him in Christ's name, for Christ had commanded that all should share with the needy. And what was not given freely was taken by force. Many acted thus. . . . Thomas [Müntzer] instituted this brigandage and multiplied it every day.[30]

At that point, the great Peasants' War erupted throughout Germany, a rebellion by the peasantry in favor of their local autonomy, and opposing the new centralizing, high tax rule of the German princes. In the process of crushing the feebly armed peasantry, the princes came to Muhlhausen on May 15, and offered amnesty to the peasants if they would hand over Müntzer and his immediate followers. The peasants were tempted, but Müntzer, holding aloft his naked sword, gave his last flaming speech, declaring that God had personally promised him victory; that he would catch all the enemy cannonballs in the sleeves of his cloak; and that God would protect them all. At a climactic moment in Müntzer's speech, a rainbow appeared in the heavens. Since Müntzer had adopted the rainbow as the symbol of his movement, the credulous peasantry naturally interpreted this event as a veritable Sign from heaven. Unfortunately, the Sign failed to work, and the princes' army crushed the peasantry, killing 5,000 while losing only half a dozen men. Müntzer himself fled and hid, but was captured soon after, tortured into confession, and duly executed.

Communism as the Kingdom of God on Earth: The Takeover of Münster

Thomas Müntzer and his Sign may have gotten short shrift, and his body be a-mouldrin' in the grave, but his soul kept marching on. His cause was soon picked up by a Müntzer disciple, the bookbinder Hans Hut. Hut claimed to be a prophet sent by God to announce that Christ would return to earth at Whitsuntide, 1528, and would give the power to enforce justice to Hut and to his following of rebaptized saints. The saints would then "take up double-edged swords" and wreak God's vengeance upon priests, pastors, kings, and nobles. Hut and his men would then "establish the rule of Hans Hut on earth," with Muhlhausen, as one might expect, as the world's capital. Christ, aided by Hut and company, would then establish a millennium of communism and free love. Hut was captured in 1527 (unfortunately before Jesus

had a chance to return), imprisoned at Augsburg, and killed allegedly trying to escape. For a year or two, Huttian followers popped up throughout southern Germany, threatening to set up a communist Kingdom of God by force of arms. In 1530, however, they were smashed and suppressed by the alarmed authorities. Müntzerian-type Anabaptism would now move to northwestern Germany.

Northwestern Germany was dotted by a number of small ecclesiastical states, each run by a prince-bishop, bishops who were secular aristocratic lords not ordained as priests. The ruling clergy of the state exempted themselves from taxation, while imposing heavy taxes on the rest of the populace. Generally, the capital cities of each state were run by an oligarchy of guilds who cartelized their crafts, and who battled the state clergy for a degree of autonomy.

The largest of these ecclesiastical states in northwest Germany was the bishopric of Münster; its capital city of Münster, a town of some 10,000 people, was run by the town guilds. During and after the Peasants' War, the guilds and clergy battled back and forth, until, in 1532, the guilds, supported by the people, were able to take over the town, soon forcing the Catholic bishop to recognize Münster officially as a Lutheran city.

Münster was not destined to remain Lutheran for long, however. From all over the northwest, hordes of Anabaptist crazies flooded into the city of Münster, seeking the onset of the New Jerusalem. Anabaptism escalated when the eloquent and popular young minister Bernt Rothmann, a highly educated son of a town blacksmith, converted to Anabaptism. Originally a Catholic priest, Rothmann had become a friend of Luther and a head of the Lutheran church in Münster. But now he lent his eloquent preaching to the cause of communism as it had supposedly existed in the primitive Christian Church, with everything being held in common, with no mine or thine, and each man receiving according to his "need." Rothmann's widespread reputation attracted thousands more into Münster, largely the poor, the rootless, and those hopelessly in debt.

The leader of the horde of Münster Anabaptists, however, was destined to be not Rothmann but a Dutch baker from Haarlem, Jan Matthys. In early 1534, Matthys sent out missionaries or "apostles" to rebaptize everyone they could into the Matthys movement, and his apostles were greeted in Münster with enormous enthusiasm. Even Rothmann was rebaptized once

again, followed by many former nuns and a large part of the population. The leader of the Matthys movement soon arrived, a young Dutchman of 25 named Jan Bockelson (Jan of Leyden). Bockelson quickly married the daughter of the wealthy cloth merchant, Bernt Knipperdolling, the leader of the Münster guilds, and the two men, leading the town in apocalyptic frenzy, led a successful uprising to dominate the town. The two leaders sent messengers outside the town urging all followers to come to Münster. The rest of the world, they proclaimed, would be destroyed in a month or two; only Münster would be saved, to become the New Jerusalem. Thousands poured in from as far away as Frisia in the northern Netherlands. As a result, the Anabaptists were able to impose absolute rule on the city, with the incoming Matthys, aided by Bockelson, becoming the virtual dictators of Münster. At last, Anabaptism had seized a real-life city; the greatest communist experiment in history to that date could now begin.

The first cherished program of this new communist theocracy was, of course, to purge the New Jerusalem of the unclean and the ungodly, as a prelude to their ultimate extermination throughout the world. Matthys, therefore, called for the execution of all remaining Catholics and Lutherans, but Knipperdolling, slightly more politically astute, warned Matthys that such immediate slaughter might bring down the wrath of the rest of the world. Matthys therefore did the next best thing, and on February 27 the Catholics and Lutherans were driven out of the city, in the midst of a horrendous snowstorm. Prefiguring the actions of communist Cambodia in the 1970s, all non-Anabaptists, including old people, invalids, babies, and pregnant women, were driven into the snowstorm, and all were forced to leave behind all their money, property, food, and clothing. The remaining Lutherans and Catholics were compulsorily rebaptized, all those refusing being put to death. The mass expulsion of non-Anabaptists was enough for the bishop, who began a long military siege of Münster the next day.

With every person in the city drafted for siege work, Jan Matthys launched his totalitarian communist social revolution. The first step was to confiscate the property of the expellees. All their worldly goods were placed in central depots, and the poor were encouraged to take “according to their needs,” the “needs” to be interpreted by seven appointed “deacons” chosen by Matthys. When a blacksmith protested at these measures imposed, particularly gallingly, by a group of Dutch foreigners,

Matthys arrested the courageous smithy. Summoning the entire population of the town to be witness, Matthys personally stabbed, shot, and killed the "godless" blacksmith, and then threw into prison several leading citizens who protested his treatment. The crowd was warned to profit by this public execution, and they obediently sang a hymn in honor of the killing.

A crucial part of the Anabaptist reign of terror was their decision, again prefiguring that of the Khmer Rouge regime in Cambodia, to abolish all private ownership of money. With no money to purchase any good, the population became slavishly dependent on handouts or rations from the power elite. Accordingly, Matthys, Rothmann and the rest launched a propaganda campaign that it was un-Christian to own money privately; and that all money should be held "in common," which in practice meant that all money whatsoever must be handed over to Matthys and his ruling clique. Several Anabaptists who kept or hid their money were arrested and terrorized into crawling to Matthys on their knees, begging forgiveness, which Matthys graciously granted them.

After two months of unremitting propaganda, combined with threats and terror against those who disobeyed, the private ownership of money was effectively abolished in Münster. The government seized all the money and used it to buy goods or hire workers from the outside world. Wages were doled out in kind by the only employer: the theocratic Anabaptist State.

Food was confiscated from private homes, and rationed according to the will of government deacons. Also, to accommodate the host of immigrants, all private homes were effectively communized, with everyone permitted to quarter themselves everywhere; it was now illegal to close, let alone lock, one's doors. Compulsory communal dining-halls were established, where people ate together to the readings from the Old Testament.

The compulsory communism and reign of terror was carried out in the name of community and Christian "love." This communization was considered the first giant steps toward egalitarian communism, where, as Rothmann put it, "all things were to be in common, there was to be no private property and nobody was to do any more work, but simply trust in God." Somehow, the workless part never seemed to arrive.

A pamphlet sent by the Matthys regime to other Anabaptist communities hailed their new order of Christian love through

terror:

For not only have we put all our belongings into a common pool under the care of deacons, and live from it according to our need; we praise God through Christ with one heart and mind and are eager to help one another with every kind of service.

> And accordingly, everything which has served the purposes of self-seeking and private property, such as buying and selling, working for money, taking interest and practicing usury . . . or eating and drinking the sweat of the poor . . . and indeed everything which offends us against love—all such things are abolished amongst us by the power of love and community.

At the end of March 1534, however, Matthys's swollen *hubris* brought him down. Convinced at Easter time that God had ordered him and a few of the faithful to lift the Bishop's siege and liberate the town, Matthys and a few others rushed out of the gates at the besieging army, and were literally hacked to pieces in response.

The death of Matthys left Münster in the hands of young Bockelson. And if Matthys had chastised the people of Münster with whips, Bockelson would chastise them with scorpions. Bockelson wasted little time in mourning his mentor. He preached to the faithful: "God will give you another Prophet who will be more powerful." How could this young enthusiast top his master? Early in May, Bockelson caught the attention of the town by running naked through the streets in a frenzy, falling then into a silent three-day ecstasy. When he rose on the third day, he announced to the entire populace a new dispensation that God had revealed to him. With God at his elbow, Bockelson abolished the old town offices of Council and burgermaster, and installed a new ruling council of 12 Elders headed by himself. The Elders were given total authority over the life and death, the property and spirit, of every inhabitant of Münster. The old guilds were abolished, and a strict system of forced labor was imposed. All artisans not drafted into the military were now public employees, working for the community for no monetary reward.

Totalitarianism in Münster was now complete. Death was now the punishment for virtually every independent act. Capital punishment was decreed for the high crimes of: murder, theft, lying, avarice, and quarrelling. Death was also decreed for every conceivable kind of insubordination: the young against the

parents, wives against their husbands, and, of course, anyone at all against the chosen representative of God on earth, the government of Münster. Bernt Knipperdolling was appointed high executioner to enforce the decrees.

The only aspect of life previously left untouched was sex, and this deficiency was now made up. The only sexual relation now permitted by the Bockelson regime was marriage between two Anabaptists. Sex in any other form, including marriage with one of the "godless," was a capital crime. But soon Bockelson went beyond this rather old-fashioned credo, and decided to enforce compulsory polygamy in Münster. Since many of the expellees had left their wives and daughters behind, Münster now had three times as many marriageable women as men, so that polygamy had become technologically feasible. Bockelson convinced the other rather startled preachers by citing polygamy among the patriarchs of Israel, reinforcing this method of persuasion by threatening any dissenters with death.

Compulsory polygamy was a bit a much for many of the Münsterites, who launched a rebellion in protest. The rebellion, however, was quickly crushed and most of the rebels put to death. And so, by August 1554, polygamy had been coercively established in Münster. As one might expect, young Bockelson took an instant liking to the new regime, and before long he had amassed a harem of 15 wives, including Divara, the beautiful young widow of Jan Matthys. The rest of the male population also began to take enthusiastically to the new decree. Many of the women reacted differently, however, and so the Elders passed a law ordering compulsory marriage for every woman under (and presumably also over) a certain age, which usually meant becoming a compulsory third or fourth wife.

Since marriage among the godless was not only invalid but also illegal, the wives of the expellees became fair game, and they were forced to "marry" good Anabaptists. Refusal of the women to comply with the new law was punishable, of course, with death, and a number of women were actually executed as a result. Those "old" wives who resented the new competitors in their households were also cracked down on, and their quarrelling was made a capital crime; many women were thereupon executed for quarrelling.

Bockelsonian despotism could only reach so far, however, and general resistance forced the regime to relent and permit divorce. In an aboutface, not only divorce was now permitted, but all marriage was now outlawed totally, and divorce made

very easy. As a result, Münster now became a regime of what amounted to compulsory free love. Thus, within the space of a few months, a rigid puritanism had been transmuted into a system of compulsory promiscuity.

Bockelson proved to be an excellent organizer of a besieged city. Compulsory labor was strictly enforced, and he was also able to induce many of the Bishop's poorly paid mercenaries to quit by offering them regular pay—with *money*, of course, that had been confiscated from the citizens of Münster. When the Bishop fired pamphlets into the town offering a general amnesty in return for surrender, Bockelson made reading such pamphlets a crime punishable by death. As a result, the Bishop's armies were in disarray by the end of August, and the siege was temporarily lifted.

Jan Bockelson took the opportunity to triumphantly carry his "egalitarian" communist revolution one crucial step further: he had himself proclaimed King and Messiah of the Last Days.

Bockelson realized that proclaiming *himself* King might have appeared tacky and unconvincing, even to the Bockelsonian faithful. And so he arranged for one Dusentschur, a goldsmith from a nearby town and self-proclaimed prophet, to do the job for him. At the beginning of September, Dusentschur announced to one and all a new revelation: that Jan Bockelson was to be the King of the whole world, the heir of King David, destined to keep that throne until God himself came to reclaim His Kingdom. Unsurprisingly, Bockelson confirmed that he himself had had the very same revelation. After a moment's coyness, Bockelson accepted the Sword of Justice and anointment as King of the World from Dusentschur, and Bockelson announced to the crowd that God had now given him "power over all the nations of the earth," and that anyone who might dare to resist God's will "shall without delay be put to death with the sword." The Anabaptist preachers of Münster dutifully explained to their bemused flock that Bockelson was indeed the Messiah as foretold in the Old Testament, and therefore the rightful ruler, both temporal and spiritual, of the entire world.

It often happens with self-proclaimed "egalitarians" that a special escape hatch from the drab uniformity of life is created—for themselves. And so it was with King Bockelson. It was important to emphasize in every way the importance of the Messiah's Advent. And so Bockelson wore the finest robes, metals and jewelry; he appointed courtiers and gentlemen-at-arms, who also appeared in splendid finery. King Bockelson's chief wife,

Divara, was proclaimed Queen of the World, and she too was dressed in great finery and enjoyed a suite of courtiers and followers. The new luxurious court included two hundred people housed in fine requisitioned mansions. King Bockelson would hold court on a throne draped with a cloth of gold in the public square, wearing a crown and carrying a sceptre. Also garbed in finery were Bockelson's loyal aides, including Knipperdolling as chief minister, and Rothmann as royal orator.

If communism is the perfect society, *somebody* must be able to enjoy its fruits; and who better than the Messiah and his courtiers? Though private property in money was abolished, the confiscated gold and silver was now minted into ornamental coins in honor of the new King. All horses were confiscated for the King's armed squadron. Names in revolutionary Münster were also transformed; all the streets were renamed; Sundays and feast days were abolished; and all new-born children were named personally by the King in accordance with a special pattern.

In order that the King and his nobles might live in high luxury, the subject population were now robbed of everything above the bare minimum; clothing and bedding were severely rationed, and all "surplus" turned over to King Bockelson on pain of death.

It is not surprising that the deluded masses of Münster began to grumble at being forced to live in abject poverty while King Bockelson and his courtiers lived in great luxury on the proceeds of their confiscated belongings. Bockelson responded by beaming propaganda to justify the new system. The justification was this: it was all right for Bockelson to live in pomp and luxury because he was already "dead" to the world and the flesh. Since he was dead to the world, in a deep sense his luxury didn't count. In the style of every guru who has ever lived in luxury among his poor credulous followers, he explained that for him material objects had no value. More importantly perhaps, Bockelson assured his subjects that he and his court were only the advance guard of the new order; soon, *they* too would be living in the same millennial luxury. Under their new order the people of Münster would soon forge outward, armed with God's will, and conquer the entire world, exterminating the unrighteous, after which Jesus would return and they will live in luxury and perfection. Equal communism with great luxury for all would then be achieved.

Greater dissent meant, of course, escalated terror, and King Bockelson's reign of "love" and death intensified its course of

intimidation and slaughter. As soon as he proclaimed the monarchy, the prophet Dusentschur announced a new divine revelation: that all who persisted in disagreeing with or disobeying King Bockelson shall be put to death, and their very memory extirpated forever. Many of the victims executed were women, who were killed for denying their husbands marital rights, insulting a preacher, or daring to practice polgyny—which was considered to be a solely male privilege.

The Bishop was beginning to resume his siege, but Bockelson was able to use much of the expropriated gold and silver to send apostles and pamphlets out to surrounding areas, attempting to rouse the masses to Anabaptist revolution. The propaganda had considerable effect, leading to mass uprisings throughout Holland and northwestern Germany during January 1535. A thousand armed Anabaptists gathered under the leadership of someone who called himself Christ, Son of God; and serious Anabaptist uprisings took place in West Frisia, in the town of Minden, and even the great city of Amsterdam, where the rebels managed to capture the town hall. All these uprisings were eventually suppressed, with the help of betrayal of the names of the rebels and the location of their munition dumps.

By this time, the princes of northwestern Europe had had enough; and all the states of the Holy Roman Empire agreed to supply troops to crush the hellish regime at Münster. By late January, Münster was totally and successfully blockaded and cut off from the outside world. Food shortages appeared immediately, and the crisis was met by the Bockelson regime with characteristic vigor: all remaining food was confiscated, and all horses killed, for the benefit of feeding the king, his royal court, and his armed guards. At all times throughout the siege the king and his court managed to eat and drink well, while famine and devastation swept through the town of Münster, and the masses ate literally anything, even inedible, they could lay their hands on.

King Bockelson maintained his rule by beaming continual propaganda and promises to the starving masses. God would definitely save them by Easter, or else Bockelson would have himself burnt in the public square. When Easter came and went, and no salvation had appeared, Bockelson craftily explained that he had meant only “spiritual” salvation, which had indeed occurred. He then promised that God would change the cobblestones to bread, and this of course did not happen either. Finally, Bockelson, long fascinated by the theater, ordered his

starving subjects to engage in three days of dancing and athletics. Dramatic performances were held, as well as a Black Mass.

The poor starving people of Münster were now doomed totally. The Bishop kept firing leaflets into the town promising a general amnesty if they would only depose King Bockelson and his court and hand them over to the princely forces. To guard against this threat, Bockelson stepped up his reign of terror still further. In early May, Bockelson divided the town into 12 sections, and placed a "Duke" over each section with an armed force of 24 men. The Dukes were foreigners like himself, and as Dutch immigrants would be more likely to be loyal to King Bockelson. Each Duke was strictly forbidden to leave his own section, and they, in turn, prohibited any meetings of even a few people. No one was allowed to leave town, and anyone caught attempting or plotting to leave, helping anyone else to leave, or criticizing the King, was instantly beheaded—mainly by King Bockelson himself. By mid-June such deeds were occurring daily, with the body often quartered in sections and nailed up as a warning to the Münster masses.

Bockelson would undoubtedly have let the entire population of the city starve to death rather than surrender; but two escapees betrayed weak spots in the town's defenses and on the night of June 24, 1535, the nightmare New Jerusalem of communism and "love" at last came to a bloody end. The last several hundred Anabaptist fighters surrendered under an amnesty and were promptly massacred, and Queen Divara was beheaded. As for King Bockelson, he was led about on a chain, and, the following January, he and Knipperdolling were publicly tortured to death, and their bodies suspended in cages from a church-tower.

The old establishment of Münster was duly restored and the city became Catholic once more. The stars were again in their courses, and the events of 1534–35 understandably led to an abiding distrust of mysticism and enthusiast movements throughout Protestant Europe.

It is instructive to understand the attitude of all Marxist historians toward Münster and the other millennialist movements of the early sixteenth century. The Marxists have always understandably lauded these movements and regimes, (a) for being communist, and (b) for being revolutionary movements from below. Marxists have invariably hailed these movements as forerunners of their own.

Ideas are notoriously difficult to kill, and Anabaptist communism was one such idea. One of Müntzer's collaborators, Henry Niclaes, who had been born in Münster, survived to found Familism, a pantheistic creed claiming that Man *is* God, and calling for the establishment of the Kingdom of God on Earth as the only place that it would ever exist. A key to that kingdom would be a system in which all property would be held in common, and all men would attain the perfection of Christ. Familist ideas were carried to England by a Dutch joiner, Christopher Vittels, a disciple of Niclaes, and familism spread in England during the late sixteenth century. A center of familism in early seventeenth century England was the Grindletonians, in Grindleton, Yorkshire, led, in the decade after 1615, by the curate, the Rev. Roger Brearly. Part of the attraction of familism was its antinomianism, the view that a truly godly person—such as themselves—could never, by definition, commit a sin, and antinomian behavior usually flaunted what most people considered sins in order to demonstrate to one and all their godly and sin-free status.

During the English Civil War, of the 1640s and 1650s, many radical religious groups bubbled to the surface, including Gerrard Winstanley and the pantheist communist Diggers noted above. Featuring extreme antinomianism combined with pantheism and communism including communism of women, were the half-crazed Ranters, who urged everyone to sin so as to demonstrate their purity.

The Reappearance of Communism in the French Revolution

In times of trouble, war, and social upheaval, millennial and messianic sects have always appeared and burgeoned. After the English Civil War subsided, millennialist and communist creeds vanished, only to appear again in force at the time of the French Revolution. The difference was that now, for the first time, secular rather than religious communist movements appeared. But the new secular communist prophets faced a grave problem: What was their agency for social change? The agency acclaimed by the religious millennialists had always been God and his Providential Messiah or vanguard prophets and destined, apocalyptic tribulations. But what could be the agency for a secular millennium and how could secular prophets drum up the necessary confidence in their foreordained triumph?

The first secularized communists appeared as two isolated individuals in mid-eighteenth century France. One was the aristocrat Gabriel Bonnot de Mably, elder brother of the laissez-faire liberal philosopher Etienne Bonnot de Condillac. Mably's major focus was to insist that all men are "perfectly" equal and uniform, one and the same everywhere. As in the case of many other communists after him, Mably found himself forced to confront one of the greatest problems of communism: if all property is owned in common and every person is equal, then there can be little or no incentive to work. For only the common store will benefit from anyone's work and not the individual himself. Mably in particular had to face this problem, since he also maintained that man's natural and original state was communism, and that private property arose to spoil everything precisely out of the indolence of some who wished to live at the expense of others. As Alexander Gray points out, "the indolence that ruined primitive communism would probably once again ruin communism, if reestablished."

Mably's two proposed solutions to this crucial problem were scarcely adequate. One, was to urge everyone to tighten their belts, to want less, to be content with Spartan austerity. The other was to come up with what Che Guevara and Mao Tse-tung would later call "moral incentives": to substitute for crass monetary rewards the recognition of one's merits by one's brothers—in the form of ribbons, medals, etc. In his devastatingly witty and perceptive critique, Alexander Gray writes that:

> The idea that the world may find its driving force in a Birthday Honours List (giving to the King, if necessary, 365 birthdays a year) occurs with pathetic frequency in the more Utopian forms of socialist literature . . .
>
> But obviously, if any were wise or depraved enough to say that they preferred indolence to a ribbon (and there would be many such) they would have to be allowed to continue to lead idle lives, sponging on their neighbours; perhaps some who had at last attained the ribbon might burst into a blaze of *faineantise* (laziness) in order that they might without distraction savour the pleasure which accompanies consideration.

Gray goes on to point out that the more "distinctions" are

handed out as incentives, the less they will truly distinguish, and the less influence they will therefore exert. Furthermore, Mably "does not say how or by whom his distinctions are to be conferred." Gray goes on:

> it is assumed, and always is assumed, that there will be a universal and unquestioning belief that the fountain of honour has sprayed its refreshing waters on all the most deserving and on none but the most deserving. This naively innocent faith does not exist in the world we know, nor is it likely to exist in any earthly paradise that many may imagine.

Gray concludes that in a communist society in the real world, many people who *don't* receive honors may and probably will be disgruntled and resentful at the supposed injustice: "A general or a civil servant, kept waiting unduly in the queue for the Bath, may find his youthful ardour replaced by the sourness of hope deferred, and zeal may flag."[31]

Thus, in his two preferred solutions, Gabriel de Mably was resting his hope on a miraculous transformation of human nature, much as the Marxists would later look for the advent of the New Socialist Man, willing to bend his desires and incentives to the requirements of, and the baubles conferred by, the collective. But for all his devotion to communism, Mably was at the bottom a realist, and so he held out no hope for communist triumph. Man is too steeped in the sin of selfishness and private property for a victory to occur. Clearly, Mably had scarcely begun to solve the secularist problem of social change or to inspire the birth and flowering of a revolutionary communist movement.

If Mably's pessimism was scarcely suitable for inspiring a movement, the same was not true of the other influential secular communist of mid-eighteenth century France, the unknown writer Morelly. Though personally little known, Morelly's *La Code de la Nature*, published in 1755, was highly influential, going into five more editions by 1773. Morelly had no doubts about the workability of communism; for him there was no problem of laziness or negative incentive, and therefore no need for the creation of a New Socialist Man. To Morelly, man is everywhere good, altruistic, and dedicated to work; only *institutions* are degrading and corrupt, specifically the institution of private property. Abolish that, and man's natural goodness would easily triumph. (Query: where did these corrupt human

institutions come from, if not from man?)

Similarly, for Morelly, as for Marx and Lenin after him, the administration of the communist utopia would be absurdly easy as well. Assigning to every person his task in life, and deciding what material goods and services would fulfill his needs, would apparently be a trivial problem for a Ministry of Labor or of Consumption. For Morelly, all this is merely a matter of trivial enumeration, listing things and persons.

And yet, somehow things are not going to be *that* easy in the Morelly utopia. While Mably the pessimist was apparently willing to leave society to the voluntary actions of individuals, the optimist Morelly was cheerfully prepared to employ brutally coercive methods to keep all of his "naturally good" citizens in line. Morelly worked out an intricate design for his proposed ideal government and society, all allegedly based on the evident dictates of natural law, and most of which were supposed to be changeless and eternal.

In particular, there was to be no private property, except for daily needs; every person was to be maintained and employed by the collective. Every man is to be forced to work, to contribute to the communal storehouse, according to his talents, and then will be assigned goods from these stores according to his presumed needs. Marriages are to be compulsory, and children are to be brought up communally, and absolutely identically in food, clothing, and training. Philosophic and religious doctrines are to be absolutely prescribed; no differences are to be tolerated; and children are not to be corrupted by any "fable, story, or ridiculous fictions." All trade or barter is to be forbidden by "inviolable law." All buildings are to be the same, and grouped in equal blocks; all clothing is to be made out of the same fabric (a proposal prophetic of Mao's China). Occupations are to be limited and strictly assigned by the state.

Finally, the imposed laws are to be held sacred and inviolable, and anyone attempting to change them is to be isolated and incarcerated for life.

It should be clear that these utopias are debased, secularized versions of the visions of the Christian millennialists. Not only is there no ordained agency of social change to achieve this end-state, but they lack the glitter of messianic rule or glorification of God to disguise the fact that these utopias are static states, in which, as Gray puts it, "Nothing ever happens; no one ever disagrees with any one; the government, whatever its form may be, is always so wisely guided that there may be room for

gratitude but never for criticism. . . . Nothing happens, nothing can happen in any of them." Gray concludes that even though, according to the utopian writers, "we are assured that never was there such a happy population," that "in fact no Utopia has ever been described in which any sane man would on any conditions consent to live, if he could possibly escape . . ."[32]

We must not think, however, that Christian communist millennialism had disappeared. On the contrary, heretical Christian messianism was also revived in the stormy times of the middle and late eighteenth century. Thus, the Swabian Pietist Johann Christoph Otinger, in the mid-eighteenth century, prophesied a coming theocratic world-kingdom of saints, living communally, without rank or property, as members of a millennial Christian commonwealth. Particularly influential among later German Pietists was the French mystic and theosophist Louis Claude de Saint-Martin, who in his influential *Des Erreurs et la Verite* (1773) portrayed an "inner church of the elect" allegedly existing since the dawn of history, which soon would take power in the coming age. This "Martinist" theme was developed by the Rosicrucian movement, concentrated in Bavaria. Originally alchemist mystics during the seventeenth and eighteenth centuries, the Bavarian Rosicrucians began to stress the coming to world power by the church of the elect during the dawning millennial age. The most influential Bavarian Rosicrucian author, Carl von Eckartshausen, expounded on this theme in two widely read works, *Information on Magic* (1788–92) and *On Perfectibility* (1797). In the latter work, he developed the idea that the inner church of the elect had existed backward in time to Abraham and then to go forward to a world government ruled by these keepers of the divine light. The third and final Age of History, the Age of the Holy Spirit, was now at hand. The illuminated elect destined to rule the new communal world order were, fairly obviously, the Rosicrucian Order, since major evidence for the dawn of the Third Age being imminent was the rapid spread of Martinism and Rosicrucianism itself.

And these movements were indeed spreading during the 1780s and 1790s. The Prussian King Frederick William II and a large portion of his court were converted to Rosicrucianism in the late 1780s, as was the Russian Czar Paul I a decade later, based on his reading of Saint-Martin and Eckartshausen, both of whom Paul considered to be transmitters of divine revelation. Saint-Martin was also influential through his leadership of the Scottish Rite Masonry in Lyons, and was the major figure in what

might be called the apocalyptic-Christian wing of the Masonic movement.[33]

The leading communist movement during the French Revolution, however, was secularized. The ideas of Mably and Morelly could not hope to be embodied in reality in the absence of a concrete ideological *movement*, and the task of applying these ideas in movement form was seized by a young journalist and commissioner of land deeds in Picardy, Francois Noel ("Caius Gracchus") Babeuf, who came to Paris at the age of 26 in 1790, and imbibed the heady revolutionary atmosphere in that city. By 1793, Babeuf was committed to egalitarianism and communism; two years later, he founded the secret Conspiracy of the Equals, a conspiratorial revolutionary organization dedicated to the achievement of communism. The Conspiracy was organized around his new journal, *The Tribune of the People*. The *Tribune*, in a prefigurement of Lenin's *Iskra* a century later, was used to set a coherent line for his cadre as well as for his public followers. Babeuf's *Tribune* "was the first journal in history to be the legal arm of an extralegal revolutionary conspiracy."[34]

The ultimate ideal of Babeuf and his conspiracy was absolute equality. Nature, they claimed, calls for perfect equality; all inequality is injustice; therefore community of property is to be established. As the Conspiracy proclaimed emphatically in its *Manifesto of Equals*—written by one of Babeuf's top aides, Sylvain Marechal—"We demand real equality, or Death; that is what we must have." "For its sake," the *Manifesto* went on, "we are ready for anything; we are willing to sweep everything away. Let all the arts vanish, if necessary, as long as genuine equality remains for us."

In the ideal communist society sought by the Conspiracy, private property would be abolished, and all property would be communal, and stored in communal storehouses. From these storehouses, goods would be distributed "equitably" by the superiors—oddly enough, there would apparently be a cadre of "superiors" in this "equal" world! There was to be universal compulsory labor, "serving the fatherland . . . by useful labor." Teachers or scientists "must submit certifications of loyalty" to the superiors. The *Manifesto* acknowledged that there would be an enormous expansion of government officials and bureaucrats in the communist world, inevitable where "the fatherland takes control of an individual from his birth till his death." There would be severe punishments consisting of forced labor against "persons of either sex who set society a bad example by absence

of civic-mindedness, by idleness, a luxurious way of life, licentiousness." These punishments, described, as one historian notes "lovingly and in great detail"[35] consisted of deportation to prison islands. Freedom of speech and the press are treated as one might expect. The press would not be allowed to "endanger the justice of equality" or to subject the Republic "to interminable and fatal discussions." Moreover, "No one will be allowed to utter views that are in direct contradiction to the sacred principles of equality and the sovereignty of the people." In point of fact, a work would only be allowed to appear in print "if the guardians of the will of the nation consider that its publication may benefit the Republic."

All meals would be eaten in public in every commune, and there would, of course, be compulsory attendance imposed on all community members. Furthermore, everyone could only obtain "his daily ration" in the district in which he lives; the only exception would be "when he is traveling with the permission of the administration." All private entertainment would be "strictly forbidden," lest "imagination, released from the supervision of a strict judge, should engender abominable vices contrary to the commonweal." And, as for religion, "all so-called revelation ought to be banned by law."

Important as an influence on later Marxism-Leninism was not only the communist goal, but also Babeuf's strategic theory and practice in the concrete organization of revolutionary activity. The unequal, the Babouvists proclaimed, must be despoiled, the poor must rise up and sack the rich. Above all, the French Revolution must be "completed" and redone; there must be total upheaval (*bouleversement total*), a total destruction of existing institutions so that a new and perfect world can be built from the rubble. As Babeuf called out, at the conclusion of his own *Plebeian Manifesto*: "May everything return to chaos, and out of chaos may there emerge a new and regenerated world."[36] Indeed, the *Plebian Manifesto*, published slightly earlier than the *Manifesto of Equals* in November 1795, was the first in a line of revolutionary manifestos that would reach a climax in Marx's *Communist Manifesto* a half-century later.

The two Manifestos, the *Plebeian* and the *Equals*, revealed an important difference between Babeuf and Marechal which might have caused a split had not the Equals been crushed soon afterward by police repression. For in his *Plebeian Manifesto*, Babeuf had begun to move toward Christian messianism, not only paying tribute to Moses and Joshua, but also particularly to

Jesus Christ as his, Babeuf's, "co-athlete." In prison, furthermore, Babeuf had written *A New History of the Life of Jesus Christ*. Most of the Equals, however, were militant atheists, spearheaded by Marechal, who liked to refer to himself with the grandiose acronym l'HSD, *l'homme sans Dieu* [the Man without God].

In addition to the idea of a conspiratorial revolution, Babeuf, fascinated by military matters, began to develop the idea of people's guerilla warfare: of the revolution being formed in separate "phalanxes" by people whose permanent occupation would be making revolution—whom Lenin would later call "professional revolutionaries." He also toyed with the idea of military phalanxes securing a geographical base, and then working outward from there.

A secret, conspiratorial inner circle, a phalanx of professional revolutionaries—inevitably this meant that Babeuf's strategic perspective for his revolution embodied some fascinating paradoxes. For in the name of a goal of harmony and perfect equality, the revolutionaries were to be led by a hierarchy commanding total obedience; the inner cadre would work its will over the mass. An absolute leader, heading an all-powerful cadre, would, at the proper moment, give the signal to usher in a society of perfect equality. Revolution would be made to end all further revolutions; an all-powerful hierarchy would be necessary, allegedly to put an end to hierarchy forever.

But of course, there was no real paradox here because Babeuf and his cadre harbored no real intention to eliminate hierarchy. The paeans to "equality" were a flimsy camouflage for the real objective—a permanently entrenched and absolute dictatorship.

After suffering police repression at the end of February, 1796, the Conspiracy of the Equals went further underground, and, a month later, constituted themselves as the Secret Directory of Public Safety. The seven secret directors, meeting every evening, reached collective and anonymous decisions, and then each member of this central committee radiated activity outward to 12 "instructors," each of whom mobilized a broader insurrectionary group in one of the 12 districts of Paris. In this way, the Conspiracy managed to mobilize 17,000 Parisians, but the group was betrayed by the eagerness of the secret directorate to recruit within the army. An informer led to the arrest of Babeuf on May 10, followed by the destruction of the Conspiracy of the Equals. Babeuf was executed the following year.

Police repression, however, almost always leaves pockets of

dissidents to rise again, and the new carrier of the torch of revolutionary communism became a Babouvist arrested with the leader but who managed to avoid execution. Filippo Guiseppe Maria Lodovico Buonarroti was the oldest son of an aristocratic but impoverished Florentine family, and a direct descendant of the great Michelangelo. Studying law at the University of Pisa in the early 1780s, Buonarroti was converted by disciples of Morelly on the Pisa faculty. As a radical journalist and editor, Buonarroti then participated in battles for the French Revolution against Italian troops. In the spring of 1794, he was put in charge of the French occupation in the Italian town of Oneglia, where he announced to the people that all men must be equal, and that any distinction whatever among men is a violation of natural law. Back in Paris, Buonarroti successfully defended himself in a trial against his use of terror in Oneglia, and finally plunged into Babeuf's Conspiracy of Equals. His friendship with Napoleon allowed him to escape execution, and eventually to be shipped from a prison camp to exile in Geneva.

For the rest of his life, Buonarroti became what his modern biographer calls "The First Professional Revolutionist," trying to set up revolutions and conspiratorial organizations throughout Europe. Before the execution of Babeuf and others, Buonarroti had pledged his comrades to write their full story, and he fulfilled that pledge when, at the age of 67, he published in Belgium *The Conspiracy for Equality of Babeuf* (1828). Babeuf and his comrades had been long forgotten, and this massive work now told the first and most thoroughgoing narrative of the Babouvist saga. The book proved to be an inspiration to revolutionary and communist groupings, and sold extremely well, the English translation of 1836 selling 50,000 copies in a short space of time. For the last decade of his life, the previously obscure Buonarroti was lionized throughout the European ultra-left.

Brooding over previous revolutionary failures, Buonarroti counselled the need for iron elite rule immediately after the coming to power of the revolutionary forces. In short, the power of the revolution must be immediately given over to a "strong, constant, enlightened immovable will," which will "direct all the force of the nation against internal and external enemies," and very gradually prepare the people for their sovereignty. The point, for Buonarroti, was that "the people are incapable either of regeneration by themselves or of designating the people who should direct the regeneration."

The Burgeoning of Communism in the 1830s and 1840s

The 1830s and 1840s saw the burgeoning of messianic and chiliastic communist and socialist groups throughout Europe: notably in France, Belgium, Germany and England. Owenites, Cabetists, Fourieriets, Saint Simonians, and many others sprouted and interacted, and we need not examine them or their nuanced variations in detail. While the Welshman Robert Owen was the first to use the word "socialist" in print in 1827, and also toyed with "communionist," the word "communist" finally caught on as the most popular label for the new system. It was first used in popular printed work in Etienne Cabet's utopian novel, *Voyage in Icaria* (1839),[37] and from there the word spread like wildfire across Europe, spurred by the recent development of a regular steamboat mail service and the first telegraphy. When Marx and Engels, in the famous opening sentence of their *Communist Manifesto* of 1848, wrote that "A spectre is haunting Europe—the spectre of Communism," this was a bit of hyperbolic rhetoric, but still was not far off the mark. As Billington writes, the talismanic word "communism" "spread throughout the continent with a speed altogether unprecedented in the history of such verbal epidemics."[38]

Amid this welter of individuals and groups, some interesting ones stand out. The earliest German exile group of revolutionaries was the League of the Outlaws, founded in Paris by Theodore Schuster, under the inspiration of the writings of Buonarroti. Schuster's pamphlet, *Confession of Faith of an Outlaw* (1834) was perhaps the first projection of the coming revolution as a creation of the outlaws and marginal outcasts of society, those outside the circuit of production whom Marx would understandably dismiss brusquely as the "*lumpenproletariat*." The *lumpen* were later emphasized in the 1840s by the leading anarcho-communist, the Russian Mikhail Bakunin, foreshadowing various strains of the New Left during the late 1960s and early 1970s.

The Outlaws was the first international organization of communist revolutionaries, comprised of about 100 members in Paris and almost 80 in Frankfurt am Main. The League of Outlaws, however, disintegrated about 1838, many members, including Schuster himself, going off into nationalist agitation. But the League was succeeded quickly by a larger group of German exiles, the League of the Just, also headquartered in

Paris. The German communist groups always tended to be more Christian than the other nationalities. Thus, Karl Schapper, leader of the Paris headquarters section of the League of the Just, addressed his followers as "Brothers in Christ," and hailed the coming social revolution as "the great resurrection day of the people." Intensifying the religious tone of the League of the Just was the prominent German communist, the tailor Wilhelm Weitling. In the manifesto that he wrote for the League of the Just, *Humanity as it is and as it ought to be* (1838), which though secret was widely disseminated and discussed, Weitling proclaimed himself a "social Luther," and denounced money as the source of all corruption and exploitation. All private property and all money was to be abolished and the value of all products to be calculated in "labor-hours"—the labor theory of value taken all too seriously. For work in public utilities and heavy industry, Weitling proposed to mobilize a centralized "industrial army," fueled by the conscription of every man and woman between the ages of 15 and 18.

Expelled from France after revolutionary troubles in 1839, the League of the Just moved to London, where it also established a broader front group, the Educational Society for German Workingmen in 1840. The three top leaders of the Society, Karl Schapper, Bruno Bauer, and Joseph Moll, managed to raise their total to over 1000 members by 1847, including 250 members in other countries in Europe and Latin America.

A fascinating contrast is presented by two young communists, both leaders of the movement during the 1840s, and both of whom have been almost totally forgotten by later generations—even by most historians. Each represented a different side of the communist perspective, two different strands of the movement.

One was the English Christian visionary and fantast, John Goodwyn Barmby. At the age of 20, Barmby, then an Owenite, arrived in Paris in 1840 with a proposal to set up an International Association of Socialists throughout the world. A provisional committee was actually formed, headed by the French Owenite Jules Gay, but nothing came of the scheme. The plan did, however, prefigure the First International. More importantly, in Paris Barmby discovered the word "communist," and adopted and spread it with enormous fervor. To Barmby, "communist" and "communitarian" were interchangeable terms, and he helped organize throughout France what he reported to the English Owenites were "social banquet(s) of the Communist

or Communitarian school." Back in England, Barmby's fervor was undiminished. He founded a Communist Propaganda Society, soon to be called the Universal Communitarian Society, and established a journal, *The Promethean or Communitarian Apostle*, soon renamed *The Communist Chronicle*. Communism, to Barmby, was both the "societarian science" and the final religion of humanity. His *Credo*, propounded in the first issue of *The Promethean*, avowed that "the divine is communism, that the demonic is individualism." After that flying start, Barmby wrote communist hymns and prayers, and called for the building of Communitariums, all directed by a supreme Communarchy headed by an elected Communarch and Communarchess. Barmby repeatedly proclaimed "the religion of Communism," and made sure to begin things right by naming himself "Pontifarch of the Communist Church."

The subtitle of *The Communist Chronicle* revealed its neo-christian messianism: "The Apostle of the Communist Church and the Communitive Life: Communion with God, Communion of the Saints, Communion of Suffrages, Communion of Works and Communion of Goods." The struggle for communism, declared Barmby, was apocalyptic, bound to end with the mystical reunion of Satan into God: "In the holy Communist Church, the devil will be converted into God. . . . And in this conversion of Satan doth God call peoples. . . . in that communion of suffrages, of works, and of goods both spiritual and material . . . for these latter days."[39] The arrival in London of Wilhelm Weitling in 1844 led him and Barmby to collaborate on promoting Christian communism, but by the end of 1847, they had lost out and the communist movement was shifting decisively toward atheism.

The crucial turn came in June 1847, when the two most atheistical of communist groups—the League of the Just in London, and the small, fifteen-man Communist Correspondence Committee of Brussels, headed by Karl Marx, merged to form the Communist League. At its second congress in December, ideological struggles within the League were resolved when Marx was asked to write the statement for the new party, to become the famed *Communist Manifesto*.

Cabet and Weitling, throwing in the towel, each left permanently for the United States in 1848, to try to establish communism there. Both attempts foundered ignominiously amid America's expanding and highly individualistic society. Cabet's Icarians settled in Texas and then Nauvoo, Illinois, then split and split again, until Cabet, ejected by his former followers in

Nauvoo, left for St. Louis and died, spurned by nearly everyone, in 1856. As for Weitling, he gave up more rapidly. In New York, he became a follower of Josiah Warren's individualistic though left-Ricardian labor-money scheme, and in 1854 he deviated further to become a bureaucrat with the U.S. Immigration Service, spending most of his remaining 17 years trying to promote his various inventions. Apparently, Weitling, willy-nilly, had at last "voted with his feet" to join the capitalist order.

Meanwhile, Goodwyn Barmby sequestered himself in one after another of the Channel Islands to try to found a utopian community, and denounced a former follower for setting up a more practical *Communist Journal* as "an infringement of his copyright" on the word "communism." Gradually, however, Barmby abandoned his universalism and began to call himself a "National Communist." Finally, in 1848, he went to France, became a Unitarian minister and friend of Mazzini's and abandoned communism for revolutionary nationalism.

On the other hand, a leading young French communist, Theodore Dezamy, represented a competing strain of militant atheism and a tough, cadre approach. In his early youth the personal secretary of Cabet, Dezamy led the sudden communist boom launched in 1839 and 1840. By the following year, Dezamy became perhaps the founder of the Marxist-Leninist tradition of ideologically and politically excommunicating all deviationists from the correct line. In fact, in 1842, Dezamy, a highly prolific pamphleteer, turned bitterly on his old mentor Cabet, and denounced him, in his *Slanders and Politics of Mr. Cabet*, for chronic vacillation. In *Slanders*, Dezamy, for the first time, argued that ideological as well as political discipline is requisite for the communist movement.

More importantly, Dezamy wanted to purge French communism of the influence of the quasi-religious poetic and moralistic communist code propounded by Cabet in his *Voyage in Icaria* and especially in his *Communist Credo* of 1841. Dezamy therefore countered with his *Code of the Community* the following year. Dezamy attempted to be severely "scientific" and claimed that communist revolution was both rational and inevitable. It is no wonder that Dezamy was greatly admired by Marx.

Furthermore, pacific or gradual measures were to be rejected. Dezamy insisted that a communist revolution must confiscate all private property and all money immediately. Half measures will satisfy no one, he claimed, and, furthermore, as Billington paraphrases it, "Swift and total change would be less

bloody than a slow process, since communism releases the natural goodness of man."[40] It was from Dezamy, too, that Marx adopted the absurdly simplistic view that the operation of communism was merely a clerical task of bookkeeping and registration of people and resources.[41]

Not only would revolutionary communism be immediate and total; it would also be global and universal. In the future communist world, there will be one global "congress of humanity," one single language, and a single labor service called "industrial athletes," who will perform work in the form of communal youth festivals. Moreover, the new "universal country" would abolish not only "narrow" nationalism, but also such divisive loyalties as the family. In stark practical contrast to his own career as ideological excommunicator, Dezamy proclaimed that under communism conflict would be logically impossible: "there can be no splits among Communists; our struggles among ourselves can only be struggles of harmony, or reasoning," since "communitarian principles" constitute "the solution to all problems."

Amidst this militant atheism there was, however, a kind of religious fervor and even faith. For Dezamy spoke of "this sublime devotion which constitutes socialism," and he urged proletarians to reenter "the egalitarian church, *outside of which there can be no salvation*."

Dezamy's arrest and trial in 1844 inspired German communists in Paris such as Arnold Ruge, Moses Hess, and Karl Marx, and Hess began to work on a German translation of Dezamy's Code, under the encouragement of Marx, who proclaimed the Code "scientific, socialist, materialist, and real humanist."[42]

Karl Marx: Apocalyptic Reabsorptionist Communist

Karl Marx was born in Trier, a venerable city in Rhineland Prussia, in 1818, son of a distinguished jurist, and grandson of a rabbi. Indeed, both of Marx's parents were descended from rabbis. Marx's father Heinrich was a liberal rationalist who felt no great qualms about his forced conversion to official Lutheranism in 1816. What is little known is that, in his early years, the baptized Karl was a dedicated Christian.[43] In his graduation essays from Trier *gymnasium* in 1835, the very young Marx prefigured his later development. His essay on an assigned topic, "On the Union of the Faithful with Christ" was orthodox

evangelical Christian, but it also contained hints of the fundamental "alienation" theme that he would later find in Hegel. Marx's discussion of the "necessity for union" with Christ stressed that this union would put an end to the tragedy of God's alleged rejection of man. In a companion essay on "Reflections of A Young Man on the Choice of a Profession," Marx expressed a worry about his own "demon of ambition," of the great temptation he felt to "inveigh against the Deity and curse mankind."

Going first to the University of Bonn and then off to the prestigious new University of Berlin to study law, Marx soon converted to militant atheism, shifted his major to philosophy, and joined a *Doktorklub* of Young (or Left) Hegelianism, of which he soon became a leader and general secretary.

The shift to atheism quickly gave Marx's demon of ambition full rein. Particularly revelatory of Marx's adult as well as youthful character are volumes of poems, most of them lost until a few were recovered in recent years.[44] Historians, when they discuss these poems, tend to dismiss them as inchoate Romantic yearnings, but they are too congruent with the adult Marx's social and revolutionary doctrines to be casually dismissed. Surely, here seems to be a case where a unified (early plus late) Marx is vividly revealed. Thus, in his poem "Feelings," dedicated to his childhood sweetheart and later wife Jenny von Westphalen, Marx expressed both his megalomania and his enormous thirst for destruction:

> *Heaven I would comprehend*
> *I would draw the world to me*;
> *Loving, hating, I intend*
> *That my star shine brilliantly . . .*
>
> and
>
> *. . . Worlds I would destroy forever*,
> *Since I can create no world*;
> *Since my call they notice never . . .*

Here, of course, is a classic expression of Satan's supposed reason for hating, and rebelling against, God.

In another poem Marx writes of his triumph after he shall have destroyed God's created world:

> *Then I will be able to walk triumphantly*,

Like a god, through the ruins of their kingdom.
Every word of mine is fire and action.
My breast is equal to that of the Creator.

And in his poem "Invocation of One in Despair," Marx writes:

I shall build my throne high overhead,
Cold, tremendous shall its summit be.
For its bulwark superstitious dread.
For its marshal blackest agony.[45]

The Satan theme is most explicitly set forth in Marx's "The Fiddler," dedicated to his father.

See this sword?
The prince of darkness
Sold it to me.

and

With Satan I have struck my deal,
He chalks the signs, beats time for me
I play the death march fast and free.

Particularly instructive is Marx's lengthy unfinished poetic drama of this youthful period, *Oulanem, A Tragedy*. In the course of this drama his hero, Oulanem, delivers a remarkable soliloquy, pouring out sustained invective, a deep hatred of the world and of mankind, a hatred of creation, and a threat and a vision of total world destruction.

Thus Oulanem pours out his vials of wrath:

I shall howl gigantic curses on mankind.
Ha! Eternity! She is an eternal grief. . . .
Ourselves being clockwork, blindly mechanical,
Made to be foul-calendars of Time and Space,
Having no purpose save to happen, to be ruined,
So that there shall be something to ruin . . .
If there is a Something which devours,
I'll leap within it, though I bring the world to ruins
—
The world which bulks between me and the
Abyss I will smash to pieces with my enduring curses.
I'll throw my arms around its harsh reality:

Embracing me, the world will dumbly pass away,
And then sink down to utter nothingness,
Perished, with no existence that would be really living!

And

. . . the leaden world holds us fat,
And we are chained, shattered, empty, frightened,
Eternally chained to this marble block of Being, . . .
and we—
We are the apes of a cold God.[46]

All this reveals a spirit that often seems to animate militant atheism. In contrast to the non-militant variety, which expresses a simple disbelief in God's existence, militant atheism seems to believe implicitly in God's existence, but to hate Him and to wage war for His destruction. Such a spirit was all too clearly revealed in the retort of militant atheist and anarcho-communist Bakunin to the famous pro-theist remark of Voltaire: "If God did not exist, it would be necessary to create Him." To which the demented Bakunin retorted: "If God did exist, it would be necessary to destroy Him." It was this hatred of God as a creator greater than himself that apparently animated Karl Marx.

When Marx came to the University of Berlin, the heart of Hegelianism, he found that doctrine regnant but in a certain amount of disarray. Hegel had died in 1831; the Great Philosopher was supposed to bring about the end of History, but now Hegel was dead, and History continued to march on. So if Hegel himself was not the final culmination of history, then perhaps the Prussian State of Friedrich Wilhelm III was not the final stage of history either. But if he was not, then mightn't the dialectic of history be getting ready for yet another twist, another *aufhebung*?

So reasoned groups of radical youth, who, during the late 1830s and 1840s in Germany and elsewhere, formed the movement of the Young, or Left, Hegelians. Disillusioned in the Prussian State, the Young Hegelians proclaimed the inevitable coming apocalyptic revolution that would destroy and transcend that State, a revolution that would *really* bring about the end of History in the form of national, or world, communism. After Hegel, there was one more twist of the dialectic to go.

One of the first and most influential of the Left Hegelians was a Polish aristocrat, Count August Cieszkowski, who wrote in

German and published in 1838 his *Prolegomena to a Historiosophy*. Cieszkowski brought to Hegelianism a new dialectic of history, a new variant of the three ages of man. The first age, the age of antiquity, was, for some reason, the Age of Emotion, the epoch of pure feeling, of no reflective thought, of elemental immediacy and hence unity with nature. The "spirit" was "in itself" (*an sich*). The second age, the Christian Era, stretching from the birth of Jesus to the death of the great Hegel, was the Age of Thought, of reflection, in which the "spirit" moved "toward itself," in the direction of abstraction and universality. But Christianity, the Age of Thought, was also an era of intolerable duality, of alienation, of man separated from God, of spirit separated from matter, and thought from action. Finally, the third and culminating age, the Age a-borning, heralded (of course!) by Count Cieszkowski, was to be the Age of Action. The third post-Hegelian age would be an age of practical action, in which the thought of both Christianity and of Hegel would be transcended and embodied into an act of will, a final revolution to overthrow and transcend existing institutions. For the term "practical action," Cieszkowski borrowed the Greek word *praxis* to summarize the new age, a term that would soon acquire virtually talismanic influence in Marxism. This final age of action would bring about, at last, a blessed unity of thought and action, spirit and matter, God and earth, and total "freedom." With Hegel and the mystics, Cieszkowski stressed that *all* past events, even those seemingly evil, were necessary to the ultimate and culminating salvation.

In a work published in French in Paris in 1844, Cieszkowski also heralded the new class destined to become the leaders of the revolutionary society: the *intelligentsia*, a word that had recently been coined by a German-educated Pole, B. F. Trentowski.[47] Cieszkowski thus proclaimed and glorified a development that would at least be implicit in the Marxist movement (after all, the great Marxists, from Marx and Engels on down, were all bourgeois intellectuals rather than children of the proletariat). Generally, however, Marxists have been shamefaced about this reality that belies Marxian proletarian-ism and equality, and the "new class" theorists have all been critics of Marxian socialism, (e.g. Bakunin, Machajski, Michels, Djilas).

Count Cieszkowski, however, was not destined to ride the wave of the future of revolutionary socialism. For he took the Christian messianic, rather than the atheistic, path to the new society. In his massive, unfinished work of 1848, *Our Father*

(*Ojcze nasz*), Cieszkowski maintained that the new age of revolutionary communism would be a Third Age, an Age of the Holy Spirit (shades of Joachimism!), an era that would be the Kingdom of God on earth "as it is in heaven." This final Kingdom of God on earth would reintegrate all of "organic humanity," and would be governed by a Central Government of All Mankind, headed by a Universal Council of the People.

At that time, it was by no means clear which strand of revolutionary communism, the religious or the atheist, would ultimately win out. Thus, Alexander Ivanovich Herzen, a founder of the Russian revolutionary tradition, was entranced by Cieszkowski's brand of Left Hegelianism, writing that "the future society is to be the work not of the heart, but of the concrete. Hegel is the new Christ bringing the word of truth to men."[48] And soon, Bruno Bauer, friend and mentor of Karl Marx and leader of the *Doktorklub* of Young Hegelians at the University of Berlin, hailed Cieszkowski's new philosophy of action in late 1841 as "The Trumpet Call of the Last Judgment."

But the winning strand in the European socialist movement, as we have indicated, was eventually to be Karl Marx's atheism. If Hegel had pantheized and elaborated the dialectic of the Christian messianics, Marx now "stood Hegel on his head" by atheizing the dialectic, and resting it not on mysticism or religion or "spirit" or the Absolute Idea or the World-Mind, but on the supposedly solid and "scientific" foundation of philosophical materialism. Marx adopted his materialism from the Left Hegelian Ludwig Feuerbach, particularly from his work *The Essence of Christianity* (1843). In contrast to the Hegelian emphasis on "spirit," Marx would study the allegedly scientific laws of matter in some way operating through history. Marx, in short, took the dialectic and made it into a "materialist dialectic of history."

By recasting the dialectic onto materialist and atheist terms, however, Marx gave up the powerful motor of the dialectic as it supposedly operated through history: either Christian messianism or Providence or the growing self-consciousness of the World-Spirit. How could Marx find a "scientific" materialist replacement, newly grounded in the ineluctable "laws of history," that would explain the historical process thus far, and also—and most importantly—explain the inevitability of the imminent apocalyptic transformation of the world into communism? It is one thing to base the prediction of a forthcoming Armageddon on the Bible; it is quite another to

deduce this event from allegedly scientific law. Setting forth the specifics of this engine of history was to occupy Karl Marx for the rest of his life.

Although Marx found Feuerbach indispensable for adopting a thoroughgoing atheist and materialist position, Marx soon found that Feuerbach had not gone nearly far enough. Even though Feuerbach was a philosophical communist, he basically believed that if man foreswore religion, then man's alienation from his self would be over. To Marx, religion was only one of the problems. The entire world of man (the *Menschenwelt*) was alienating, and had to be radically overthrown, root and branch. Only apocalyptic destruction of this world of man would permit true human nature to be realized. Only then would the existing un-man (*Unmensch*) truly become man (*Mensch*). As Marx thundered in the fourth of his "theses on Feuerbach," "One must proceed to destroy the 'earthly family' as it is 'both in theory and in practice.'"[49]

In particular, declared Marx, true man, as Feuerbach had argued, is a "communal being" (*Gemeinwesen*) or "species being" (*Gattungswesen*). Although the state as it exists must be negated or transcended, man's participation in the state comes as such a communal being. The major problem comes in the private sphere, the market, or "civil society," in which un-man acts as an egoist, as a private person, treating others as means, and not collectively as masters of their fate. And in existing society, unfortunately, civil society is primary, while the State, or "political community," is secondary. What must be done to realize the full nature of mankind is to transcend the State and civil society by politicizing all of life, by making all of man's actions "collective." Then real individual man will become a true and full species being.[50][51]

But only a revolution, an orgy of destruction, can accomplish such a task. And here, Marx harkened back to the call for total destruction that had animated his vision of the world in the poems of his youth. Indeed, in a speech in London in 1856, Marx gave graphic and loving expression to this goal of his "praxis." He mentioned that in Germany in the Middle Ages there existed a secret tribunal called the *Vehmgericht*. He then explained:

> If a red cross was seen marked on a house, people knew that its owner was doomed by the *Vehm*. All the houses of Europe are now marked with the

> mysterious red cross. History is the judge—its executioner the proletarian.[52]

Marx, in fact, was not satisfied with the philosophical communism to which he and Engels had separately been converted by the slightly older Left Hegelian Moses Hess in the early 1840s. To Hess's communism, Marx, by the end of 1843, added the crucial emphasis on the *proletariat*, not simply as an economic class, but as destined to become the "universal class" when communism was achieved. Ironically, Marx acquired his vision of the proletariat as the key to the communist revolution from an influential book published in 1842 by a youthful enemy of socialism, Lorenz von Stein. Stein interpreted the socialist and communist movements of the day as rationalizations of the class interests of the propertyless proletariat. Marx discovered in Stein's attack the "scientific" engine for the inevitable coming of the communist revolution.[53] The proletariat, the most "alienated" and allegedly "propertyless" class, would be the key.

We have been accustomed, ever since Stalin's alterations of Marx, to regard "socialism" as the "first stage" of a communist-run society, and "communism" as the ultimate stage. This is not the way Marx saw the development of his system. Marx, as well as all the other communists of his day, used "socialism" and "communism" interchangeably to describe their ideal society. Instead, Marx foresaw the dialectic operating mysteriously to bring about the first stage, of "raw" or "crude" communism, to be magically transformed by the workings of the dialectic into the "higher" stage of communism. It is remarkable that Marx, especially in his "Private Property and Communism," accepted the horrendous picture that von Stein drew of the "raw" stage of communism. Stein forecast that communism would attempt to enforce egalitarianism by wildly and ferociously expropriating and destroying property, confiscating it, and coercively communizing women as well as material wealth. Indeed, Marx's evaluation of raw communism, the stage of the dictatorship of the proletariat, was even more negative than Stein's: "In the same way as women abandon marriage for general [i.e., universal] prostitution, so the whole world of wealth, that is, the objective being of man, is to abandon the relation of exclusive marriage with the private property owner for the relation of general prostitution with the community." Not only that, but, as Professor Tucker puts it, Marx concedes that "raw communism is not the real transcendence of private property but only the

universalizing of it, and not the abolition of labour but only its extension to all men. It is merely a new form in which the vileness of private property comes to the surface."

In short, in the stage of communalization of private property, what Marx himself considers the worst features of private property will be maximized. Not only that: but Marx concedes the truth of the charge of anti-communists then and now that communism and communization is but the expression, in Marx's words, of "envy and a desire to reduce all to a common level." Far from leading to a flowering of human personality, as Marx is supposed to claim, he admits that communism will negate that personality totally. Thus Marx:

> In completely negating the *personality* of man, this type of communism is really nothing but the logical expression of private property. General *envy*, constituting itself as a power, is the disguise in which *greed* reestablishes itself and satisfies itself, only in *another way*. . . . In the approach to *woman* as the spoil and handmaid of communal lust is expressed the infinite degradation in which man exists for himself.[54]

Marx clearly did not stress this dark side of communist revolution in his later writings. Professor Tucker explains that "these vivid indications from the Paris manuscripts of the way in which Marx envisaged and evaluated the immediate post-revolutionary period very probably explain the extreme reticence that he always later showed on this topic in his published writings."[55]

But if this communism is admittedly so monstrous, a regime of "infinite degradation," why should anyone favor it, much less dedicate one's life and fight a bloody revolution to establish it? Here, as so often in Marx's thought and writings, he falls back on the mystique of the "dialectic"—that wondrous magic wand by which one social system inevitably gives rise to its victorious transcendence and negation. And, in this case, by which total evil—which turns out, interestingly enough, to be the post-revolutionary dictatorship of the proletariat and *not* previous capitalism—becomes transformed into total good, a never-never land absent the division of labor and all other forms of alienation. The curious point is that while Marx attempts to explain the dialectic movement from feudalism to capitalism and from capitalism to the first stage of communism in terms of class

struggle and the material productive forces, both of these drop out once raw communism is achieved. The allegedly inevitable transformation from the hell of raw communism to the alleged heaven of higher communism is left totally unexplained; to rely on *that* crucial transformation, we must fall back on pure faith in the mystique of the dialectic.

Despite Marx's claim to be a "scientific socialist," scorning all other Socialists whom he dismissed as moralistic and "utopian," it should be clear that Marx himself was even more in the messianic utopian tradition than were the competing "Utopians." For Marx not only sought a desired future society that would put an end to history, he claimed to have found the path toward that utopia inevitably determined by the "laws of history."

But a utopian, and a fierce one, Marx certainly was. A hallmark of every utopia is a militant desire to put an end to history, to freeze mankind in a static state, to put an end to diversity and man's free will, and to order everyone's life in accordance with the utopian's totalitarian plan. Many early communists and socialists set forth their fixed utopias in great and absurd detail, determining the size of everyone's living quarters, the food they would eat, etc. Marx was not silly enough to do that, but his entire system, as Professor Thomas Molnar points out, is "the search of the utopian mind for the definitive stabilization of mankind or, in gnostic terms, its reabsorption into the timeless." For Marx, his quest for utopia was, as we have seen, an explicit attack on God's creation and a ferocious desire to destroy it. The idea of crushing the many, the diverse facets of creation, and of returning to an allegedly lost Unity with God began, as we have seen, with Plotinus. As Molnar summed up:

> In this view, existence itself is wound on nonbeing. Philosophers from Plotinus to Fichte and beyond have held that the reabsorption of the polichrome universe in the eternal One would be preferable to creation. Short of this solution, they propose to arrange a world in which change is brought under control so as to put an end to a disturbingly free will and to society's uncharted moves. They aspire to return from the linear Hebrew-Christian concept to the Greco-Hindu cycle—that is, to a changeless, timeless permanence.

The triumph of unity over diversity means that, for the

Utopians including Marx, "civil society, with its disturbing diversity, can be abolished."[56]

Substituting in Marx for God's will or the Hegelian dialectic of the World-Spirit or the Absolute Idea, is monist materialism, its central assumption, as Molnar puts it, being "that the universe consists of matter plus some sort of one-dimensional law immanent in matter." In that case, "man himself is reduced to a complex but manipulable material aggregate, living in the company of other aggregates, and forming increasingly complex super aggregates called societies, political bodies, churches." The alleged laws of history, then, are derived by scientific Marxists as supposedly evident and immanent within this matter itself.

The Marxian process toward utopia, then, is man acquiring insights into his own true nature, and then rearranging the world to accord with that nature. Engels, in fact, explicitly proclaimed the Hegelian concepts of the Man-God: "Hitherto the question has always stood: What is God?—and German Hegelian philosophy has revolved it as follows: God is man. . . . Man must now arrange the world in a *truly* human way, according to the demands of his *nature*."[57]

But this process is rife with self-contradictions; for example, and centrally, how can mere matter gain insights into his [its?] nature? As Molnar puts it: "for how can matter gather insights? And if it has insights, it is not entirely matter, but matter *plus*."

In this allegedly inevitable process, of arriving at the proletarian communist utopia after the proletarian class becomes conscious of its true nature, what is supposed to be Karl Marx's own role? In Hegelian theory, Hegel himself is the final and greatest world-historical figure, the Man-God of man-gods. Similarly, Marx in his own view stands at a focal point of history as the man who brought to the world the crucial knowledge of man's true nature and of the laws of history, thereby serving as the "midwife" of the process that would put an end to history. Thus Molnar:

> Like other utopian and gnostic writers, Marx is much less interested in the stages of history up to the present (the egotistic *now* of all utopian writers) than the final stages when the stuff of time becomes more concentrated, when the drama approaches its denouement. In fact, the utopian writer conceives of history as a process leading to himself since he, the ultimate *comprehensor*, stands in the center of

> history. It is natural that things accelerate during his own lifetime and come to a watershed: *he* looms large between the Before and the After.[58]

Thus, in common with other utopian socialists and communists, Marx sought in communism the apothesis of the collective species-mankind as one new super-being, in which the only meaning possessed by the individual is as a negligible particle of that collective organism. Many of Marx's numerous epigones carried out his quest. One incisive portrayal of Marxian collective organicism—what amounts to a celebration of the New Socialist Man to be created during the communizing process—was that of a top Bolshevik theoretician of the early twentieth century, Alexander Alexandrovich Bogdanov. Bogdanov, too, spoke of "three ages" of human history. First was a religious, authoritarian society and a self-sufficient economy. Next came the "second age," an exchange economy, marked by diversity and the emergence of the "autonomy" of the "individual human personality." But this individualism, at first progressive, later becomes an obstacle to progress as it hampers and "contradicts the unifying tendencies of the machine age." But then there will arise the Third Age, the final stage of history, communism. This last stage will be marked by a collective self-sufficient economy, and by

> the fusion of personal lives into one colossal whole, harmonious in the relations of its parts, systematically grouping all elements for one common struggle—struggle against the endless spontaneity of nature. . . . An enormous mass of creative activity . . . is necessary in order to solve this task. It demands the forces not of man but of mankind—and only in working at this task does mankind as such emerge.[59]

Finally, at the apex of Marxian messianic communism is a man who fuses all the tendencies and strands analyzed thus far. A blend of Christian messianist *and* devoted Marxist-Leninist-Stalinist, the twentieth century German Marxist Ernst Bloch set forth his vision in his recently translated three-volume phantasmagoria *The Principle of Hope* (*Daz Prinzip Hoffung*). Early in his career, Bloch wrote a laudatory study of the views and life of the coercive Anabaptist communist, Thomas Müntzer, whom he hailed as magical, or "theurgic." The inner "truth" of things,

wrote Bloch, will only be discovered after "a complete transformation of the universe, a grand apocalypse, the descent of the Messiah, a new heaven and a new earth." There is more than a hint in Bloch that disease, nay death itself, will be abolished upon the advent of communism.[60] God is developing; "God himself is part of the Utopia, a finality that is still unrealized." For Bloch mystical ecstasies and the worship of Lenin and Stalin went hand in hand. As J. P. Stern writes, Bloch's *Principle of Hope* contains such remarkable declarations as "*Ubi Lenin, ibi Jerusalem*" [Where Lenin is, there is Jerusalem], and that "the Bolshevist fulfillment of Communism" is part of "the age-old fight for God."

In the person of Ernst Bloch, the old grievous split within the European communist movement of the 1830s and 1840s between its Christian and atheist wings was at last reconciled. Or, to put it another way, in a final bizarre twist of the dialectic of history, the total conquest by 1848 of the Christian variants of communism at the hands of the superior revolutionary will and organizing of Karl Marx, was now transcended and negated. The messianic eshcatological vision of heretical religious and Christian communism was now back in full force, within the supposed stronghold of atheistic communism, Marxism itself. From Ernst Bloch to the fanatical cults of personality of Stalin and Mao to the genocidal vision and ruthlessness of Pol Pot in Cambodia and the Shining Path guerrilla movement in Peru, it seems that, within the body and soul of Marxism, Thomas Müntzer had at last triumphed conclusively over Feuerbach.

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[1] Ernest L. Tuveson, "The Millenarian Structure of 'The Communist Manifesto,'" in C. Patrides and J. Wittreich, eds., *The Apocalypse in English Renaissance Thought and Literature* (Ithaca, N.Y.: Cornell University Press, 1984), pp. 326–27. Tuveson speculates that Marx and Engels may have been influenced by the outburst of millenarianism in England during the 1840s. On this phenomenon, particularly the flareup in England and the U.S. of the Millerites, who predicted the end of the world on October 22, 1844, see the classic work on modern

millenarianism, Ernest R. Sandeen, *The Roots of Fundamentalism: British and American Millenarianism, 1880–1930* (Chicago: University of Chicago Press, 1970). See Tuveson, "Millenarian Structure," p. 340 n. 5.

[2] Thus, in the highly touted work of Thomas Sowell, *Marxism: The Philosophy and Economics* (London: Unwin Paperbacks, 1986), there is scarcely any consideration whatsoever paid to communism.

[3] The official Soviet textbook on Marxism treated its own proclaimed goal with brusque dismissal, insisting that all Soviets must work hard and not skip any "stages" on the long road to communism. "The CPSU [the Communist Party of the Soviet Union], being a party of scientific communism, advances and solves the problem of communist construction as the material and spiritual prerequisites for them to become ready and mature, being guided by the fact that necessary stages of development must not be skipped over . . ." *Fundamentals of Marxism-Leninism*, 2nd rev. ed. (Moscow: Foreign Languages Publishing House, 1963), p. 662. Also see ibid., pp. 645–46, 666–67, and 674–75.

[4] Thus, see the illuminating work of Robert C. Tucker, *Philosophy and Myth in Karl Marx* (1970, New York: Cambridge University Press, 1961).

[5] *What Marx Really Meant* was the title of a sympathetic work on Marxism by G. D. H. Cole (London, 1934).

[6] Alexander Gray, *The Socialist Tradition* (London: Longmans Green, 1946), pp. 321–22.

[7] Another example of what may be termed "religious" behavior by Marxists is the insistence of thinkers who have clearly abandoned almost all the essential tenets of Marxism on calling themselves by the magical name "Marxist." A recent case in point is the British "analytical Marxists," such as John Roemer and Jon Elster. For a critique of this school by an orthodox Marxist, see Michael A. Lebowitz, "Is 'Analytical Marxism' Marxism?" *Science and Society* 52 (Summer 1988): 191–214.

[8] Leszek Kolakowski, *Main Currents of Marxism: Its Origins, Growth and Dissolution*, vol. 1 (Oxford: Oxford University Press, 1981), pp. 9–39.

[9] The great orthodox Christian apologist G. K. Chesterton brilliantly illuminated the difference between Christian individualism and pantheistic collectivism in the following critique of the Buddhist Mrs. Annie Besant, one of the founders of the Fabian Society:

> According to Mrs. Besant the universal Church is simply the universal Self. It is the doctrine that we are really all one person; that there are no real walls of individuality between man and man. . . . She does not tell us to love our neighbor; she tells us to be our neighbors. . . . The intellectual abyss between Buddhism and Christianity is that, for the Buddhist or the theosophist, personality is the fall of man, for the Christian it is the purpose of God, the whole point of His cosmic idea.

G. K. Chesterton, *Orthodoxy* (New York, 1927), pp. 244–45. Quoted in Thomas Molnar, *Utopia: the Perennial Heresy* (New York: Sheed and Ward, 1967), p. 123.

[10] Alexander Gray has a lot of fun with the concept of "negation" in the Hegelian and Marxian dialectic. He writes that the examples of the "negation of the negation" in Engels's *Anti-Dühring* "may be sound Hegelianism, but otherwise they appear rather silly. A seed of barley falls into the ground and germinates: negation of the seed. In the autumn it produces more grains of barley: negation of the negation. A butterfly comes from an egg: negation of the egg. After many transformations, the butterfly mates and dies: negation of the negation. . . . Hegel is surely something more than this." Gray adds a comment that Marx's admiring summary of Hegelianism in his *Poverty and Philosophy* is "not without entertainment value": "yes becomes no, no becomes yes, yes becomes at the same time yes and no, no becomes at the same time no and yes, the contraries balance, neutralize, and paralyze each other." (My own translation from Gray's original French quote, which he found "especially" entertaining.) Gray, *Socialist Tradition*, p. 300 n. 1 and n. 2.

[11] See M. H. Abrams, *Natural Supernaturalism: Tradition and Revolution in Romantic Literature* (New York: Norton, 1971), p. 161.

[12] Most of the Protestants held the very different, and far more correct, view that the Norman Conquest had imposed a state-created feudal-type landed estates on an England which had been much closer to being an idyll of genuine private property.

Engels and other historians and anthropologists saw the original Early Communism, or Golden Age, in primitive pre-market tribal societies. Modern anthropological research, however, has demonstrated that most primitive and tribal societies were based on private property, money, and market

economies. Thus, see Bruce Benson, "Enforcement of Private Property Rights in Primitive Societies: Law Without Government," *Journal of Libertarian Studies* 9 (Winter 1989): 1–26.

[13] In M. H. Abrams, *Natural Supernaturalism*, p. 517n.

[14] Christopher Hill, *The World Turned Upside Down: Radical Ideas During the English Revolution* (London: Penguin Books, 1975), p. 136. Also see F. D. Dow, *Radicalism in the English Revolution, 1640–1660* (Oxford: Basil Blackwell, 1985), pp. 74–80.

[15] See the superb work by the leading literary critic of Romanticism, Abrams, *Natural Supernaturalism*.

[16] Hegel was nominally a Lutheran, but Lutheranism in Germany at that time was evidently latitudinarian enough to encompass pantheism.

[17] Robert C. Tucker, *Philosophy and Myth*, pp. 53–54.

[18] See Raymond Plant, *Hegel* (Bloomington: Indiana University Press, 1973), p. 120.

[19] Ferguson, furthermore, used his phrase in a fashion very similar to that of Hegel, and was originally far from the Hayekian analysis of the free market. Ferguson, as a young Calvinist minister, enlisted in the suppression of the Jacobite rebellion of 1745 in Scotland. After the rebellion was at last put down, Ferguson preached a sermon in which he tried to solve the great puzzle: why did God permit the Catholics to pursue their evil goals and almost triumph? His answer: that the Catholics, even though consciously pursuing evil ends, served as the unconscious agents of God's good purpose: i.e., rousing the Presbyterian Church of Scotland out of its alleged apathy. Hence, a prototype of the "cunning of Reason" in history, except for theist rather than pantheist goals. See Richard B. Sher, *Church and University in the Scottish Enlightenment* (Princeton: Princeton University Press, 1985), pp. 40–44.

[20] As Paul Craig Roberts has rightly emphasized, "alienation" in Marx is not simply the capitalist wage-relation, but, more deeply, specialization, the division of labor, and the money economy itself. But as we see, alienation is even more rootedly the cosmic condition of man's state until the reabsorption of collective man-and-nature under communism. See Paul Craig Roberts, *Alienation and the Soviet Economy* (Albuquerque: University of New Mexico, 1971); and Roberts and Matthew A. Stephenson, *Marx's Theory of Exchange, Alienation and Crisis*, 2nd ed. (New York: Praeger, 1983).

[21] Plant, *Hegel*, p. 96.

[22] See Plant, *Hegel*, pp. 122, 123, and 181. Also see Karl R. Popper, *The Open Society and its Enemies*, vol. 2 (New York: Harper Torchbooks, 1963), p. 31.

[23] Tucker, *Philosophy and Myth*, pp. 54–55. E. F. Carritt points out that, for Hegel, "freedom" is "desiring above all things to serve the success and glory of their State. In desiring this they are desiring that the will of God should be done." If an individual thinks he should do something which is *not for* the success and glory of the State, then, for Hegel, "he should be 'forced to be free.'" How does a person *know* what action will redound to the glory of the State? To Hegel, the answer was easy. Whatever the State rulers demand, since "the very fact of their being rulers is the surest sign of God's will that they should be." Impeccable logic indeed! See E. F. Carritt, "Reply" (1940), reprinted in W. Kauffmann, ed., *Hegel's Political Philosophy* (New York: Atherton Press, 1970), pp. 38–39.

[24] Tucker offers an amusing comment on the reaction of the eminent Hegelian W. T. Stace, who had written that "we must not jump to the preposterous conclusion that, according to Hegel's philosophy, I, this particular human spirit, am the Absolute, nor that the Absolute is any particular spirit, nor that it is humanity in general. Such conclusions would be little short of shocking." Tucker adds that this "argument from propriety" does not answer the question "why we must assume that Hegel could not be 'shocking.'" Or, we might add, preposterous, or megalomaniacal. Tucker, *Philosophy*, pp. 46 n. and 47 n.

[25] On the influence of Schiller's views on organicism and alienation upon Hegel, Marx and later sociology, see Leon Bramson, *The Political Context of Sociology* (Princeton: Princeton University Press, 1961), p. 30 n.

[26] See Abrams, *Natural Supernaturalism*, p. 311.

[27] As the historian Norman Cohn put it, the Joachimite new "world would be one vast monastery, in which all men would be contemplative monks rapt in mystical ecstasy and united in singing the praises of God." Norman Cohn, *The Pursuit of the Millennium*, rev. ed. (New York: Oxford University Press, 1970), pp. 108–09.

[28] Cohn, *Pursuit of the Millennium*, p. 182.

[29] Ronald A. Knox, *Enthusiasm: A Chapter in the History of Religion* (1950; New York: Oxford University Press, 1961), pp. 132–34.

[30] Quoted in Igor Shafarevich, *The Socialist Phenomenon*

(New York: Harper and Row, 1980), p. 57.

[31] Gray, *The Socialist Tradition*, pp. 90–91.

[32] Gray, *Socialist Tradition*, pp. 62–63.

[33] See the revealing article by Paul Gottfried, "Utopianism of the Right: Maistre and Schlegel," *Modern Age* 24 (Spring 1980): 150–60.

[34] James H. Billington, *Fire in the Minds of Men: Origins of the Revolutionary Faith* (New York: Basic Books, 1980), p. 73.

[35] For this phrase and other translated quotes from the *Manifesto*, see Shafarevich, *The Socialist Phenomenon*, pp. 121–24. Also see Gray, *Socialist Tradition*, p. 107.

[36] Billington, *Fire in the Minds*, p. 75. Also see Gray, *Socialist Tradition*, p. 105n. As Gray comments, "what is desired is the annihilation of all things, trusting that out of the dust of destruction a fair city may arise. And buoyed by such a hope, how blithely would Babeuf bide the stour." Ibid., p. 105.

[37] Cabet had been a distinguished French lawyer and attorney-general of Corsica, but was ousted for radical attitudes toward the French government. After founding a journal, Cabet fled into exile in London during the 1830s and initially became an Owenite. Despite Cabet's nationality, the book was originally written and published in English and a French translation was published the following year. A peaceful communist rather than a revolutionary, Cabet tried to establish utopian communes in various failed projects in the United States, from 1848 until his death 8 years later.

[38] Billington, *Fire in the Minds*, p. 243.

[39] Billington, *Fire in the Minds*, p. 257.

[40] Billington, *Fire in the Minds*, p. 251.

[41] See the standard biography of Marx by David McLellan, *Karl Marx: His Life and Thought* (New York: Harper and Row, 1973), p. 118.

[42] See J. L. Talmon, *Political Messianism: The Romantic Phase* (New York: Praeger, 1960), p. 157.

[43] Friedrich Engels was the son of a leading industrialist and cotton manufacturer, who was also a staunch Pietist from the Barmen area of the Rhineland in Germany. Barmen was one of the major centers of Pietism in Germany, and Engels received a strict Pietist upbringing. An atheist and then a Hegelian by 1839, Engels wound up at the University of Berlin and the Young Hegelians by 1841, and moved in the same circles as Marx, becoming fast friends in 1844.

[44] The poems were largely written in 1836 and 1837, in

Marx's first months in Berlin. Two of the poems constituted Marx's first published writings, in the *Berlin Atheneum* in 1841. The others have been mainly lost.

[45] Richard Wurmbrand, *Marx and Satan* (Westchester, Ill.: Crossway Books, 1986), pp. 12–13.

[46] For the complete translated text of *Oulanem*, see Robert Payne, *The Unknown Karl Marx* (New York: New York University Press, 1971), pp. 81–83. Also excellent on the poems and on Marx as a messianist is Bruce Mazlish, *The Meaning of Karl Marx* (New York, Oxford University Press, 1984).

Pastor Wurmbrand points out that *Oulanem* is an anagram of Emmanuel, the Biblical name for Jesus, and that such inversions of holy names are standard practice in Satanic cults. There is no real evidence, however, that Marx was a member of such a cult. Wurmbrand *Marx and Satan*, pp. 13–14 and *passim*.

[47] In B. F. Trentowski, *The Relationship of Philosophy to Cybernetics* (Poznan, 1843), in which the author also coined the word "cybernetics" for the new, emerging form of rational social technology which would transform mankind. See Billington, *Fire in the Minds*, p. 231.

[48] Billington, *Fire in the Minds*, p. 225.

[49] Tucker, *Philosophy and Myth*, p. 101.

[50] Tucker, *Philosophy and Myth*, p. 105.

[51] It is both ironic and fascinating that the dominant intellectuals in contemporary Hungary who are leading the drive away from socialism and toward freedom are honoring the Marxian concept of "civil society" as what they are moving toward while going away from the collective and the communal.

[52] Tucker, *Philosophy and Myth*, p. 15.

[53] Stein was a conservative Hegelian monarchist, who had been assigned by the Prussian government to study the unsettling new doctrines of socialism and communism becoming rampant in France. Marx displayed a "minute textual familiarity" with Stein's book, Lorenz von Stein, *Der Socialismus und Communismus des heutigen Frankreichs* (Liepzig, 1842), a book that remains untranslated. Stein spent his mature years as professor of public finance and public administration at the University of Vienna. See Tucker, *Philosophy and Myth*, pp. 114–17.

[54] Quoted in Tucker, *Philosophy and Myth*, p. 155. Italics are Marx's.

[55] Tucker, *Philosophy and Myth*, pp. 155–56.

[56] Thomas Molnar, "Marxism and the Utopian Theme," *Marxist Perspectives* (Winter 1978): 153–54. The economist David

McCord Wright, while not delving into the religious roots of the problem, stressed that one group in society, the statists, seeks "the achievement of a fixed ideal static pattern of technical and social organization. Once this ideal is reached, or closely approximated, it need only be repeated endlessly thereafter." David McCord Wright, *Democracy and Progress* (New York: Macmillan, 1948), p. 21.

[57] Molnar, "Marxism," pp. 149, 150–51.

[58] Molnar, "Marxism," pp. 151–52.

[59] Quoted in S. V. Utechin, "Philosophy and Society: Alexander Bogdanov," in Leopold Labedz, ed., *Revisionism: Essays on the History of Marxist Ideas* (New York: Praeger, 1962), p. 122.

[60] J. P. Stern, "Marxism on Stilts: Review of Ernst Bloch, "The Principle of Hope," *The New Republic* 196 (March 9, 1987): 40, 42. Also see Kolakowski, *Main Currents*, vol. 3, pp. 423–24.

The Subjectivist Roots of James Buchanan's Economics

Thomas J. DiLorenzo

> I have often argued that the Austrians seem . . . to be more successful in conveying the central principle of economics to students than alternative schools . . . or approaches.
>
> —James M. Buchanan, 1976

When James Buchanan was awarded the 1986 Nobel Prize in economics the Nobel committee cited *The Calculus of Consent*,[1] co-authored in 1962 with Gordon Tullock, as Buchanan's most important work. But Buchanan himself has stated that he considers his 1969 book, *Cost and Choice: An Inquiry in Economic Theory*,[2] to be his most important theoretical contribution.

Even though *Cost and Choice* was published seven years after *The Calculus of Consent*, it embodies important elements of Buchanan's thinking that are crucial to his contributions to *The Calculus of Consent* and to much of his other work. Of particular interest to Austrian economists is the fact that subjective cost theory lies at the heart of many of Buchanan's contributions to economic theory. Moreover, other Austrian-school insights, such as methodological individualism and an emphasis on market (and non-market) *processes*, as opposed to equilibrium conditions or end states, also figure prominently in Buchanan's work.

Buchanan's Nobel Prize is widely regarded as a salute to public choice economics. But the award also reflects well on the Austrian school, to the extent that it has influenced Buchanan's thinking.

Buchanan's Principles of *Cost and Choice*

Buchanan has clearly stated that subjective cost theory is at the heart of much of his work in public choice and public policy. This methodological distinction is what separates much of his work from other economists who have written on public policy issues. The notion of opportunity cost is usually defined

acceptably by most economists, according to Buchanan, but the problem is that "the logic of the concept is not normally allowed to enter into and inform the subsequent analytical applications."[3] Such applications are essential, for a consistent application of the notion of opportunity cost, writes Buchanan,

> clarifies important areas of disagreement on policy issues. In public finance alone, debates over tax incidence, tax capitalization, public debt burden, and the role of cost-benefit analysis can be partially resolved when protagonists accept common concepts of cost. The unsatisfactory state of welfare economics can at least be understood and appreciated more adequately when the incorporated cost confusions are exposed. The . . . debate over the possibility of socialist calculation emerges with perhaps a different glow. Something can be said about such . . . topics as the draft and crime.[4]

Buchanan's cost theory "is properly labeled Austrian,"[5] and also owes a debt to developments of the "London School Tradition" during the period of the 1930s to the 1950s.[6]

One of the essential points of *Cost and Choice* is that, to many economists, cost is divorced from the act of choice. To neoclassical economists cost is objective in that it can be estimated *ex post* by external observers, even though market values are set by the subjective evaluations of market participants. Furthermore, in "the predictive science of economics" cost is, according to Buchanan,

> the objectively-identifiable magnitude that is minimized. It is the market value of the alternate product that might be produced by rational reallocation of resource inputs to uses other than that observed. This market value is reflected in the market prices for resource units; hence, cost is measured directly by prospective money outlays.[7]

One consequence of objective cost theory is that the theory "is not a theory of choice at all. Individuals do not choose; they behave predictably in response to objectively-measurable changes in their environment."[8] For according to the objective cost theory:

> Cost . . . is faced in the strict sense only by the automaton, the pure economic man, who inhabits the scientist's model. It is the behavior-inhibiting element that is plugged into the purely mechanistic market model. The conversion of objective data reflecting prospective money outlays into the subjective evaluations made by real-world decision-makers is of no concern to the predictive theorist. [9]

Buchanan acknowledges an intellectual debt to Philip Wicksteed, who was the first to tie opportunity cost directly to choice. Wicksteed wrote, for instance, that the cost of production, "in the sense of the historical and irrevocable fact that resources have been directed to this or that special purpose, has no influence on the value of the thing produced."[10] In this respect cost of production does not affect supply. What does affect supply is *anticipated* cost "in the sense of alternatives still open which must now be relinquished in order to produce this specific article," and which "influences the craftsman in determining whether he shall produce it or not."[11]

Wicksteed's work was refined by Hayek, Mises, and other Austrians, and by some members of the London School. Buchanan summarizes the resultant "choice-bound conception of cost" as follows:

(1) Cost must be borne exclusively by the decision-maker; it is not possible for cost to be shifted to or imposed on others.
(2) Cost is subjective; it exists in the mind of the decision-maker and nowhere else.
(3) Cost is based on anticipations; it is necessarily a forward-looking or *ex ante* concept.
(4) Cost can never be realized because of the fact of choice itself; that which is given up cannot be enjoyed.
(5) Cost cannot be measured by someone other than the decision-maker because there is no way that subjective experience can be directly observed.
(6) Cost can be dated at the moment of decision or choice.[12]

Buchanan makes an important distinction between choice-influencing and choice-influenced cost. The former is the type of cost discussed by Wicksteed, whereas the latter is the type of (subjective) cost that is the consequence of economic choices. Such costs may be borne by the decisionmaker, or by others on

whom costs may sometimes be shifted. This distinction is critical to much of Buchanan's work in public finance and public choice.

The Importance of Subjective Cost Theory to Public Finance and Public Choice

Buchanan gained an international reputation as a public finance scholar long before the phrase public choice was ever coined. Moreover, his subjective cost theory is what distinguishes his work from other prominent public finance theorists such as Paul Samuelson and Richard Musgrave.

Buchanan's work on tax incidence theory is a clear example of how subjectivist insights have shaped his thinking about public finance. Neoclassical public finance theory has focused on the "cost" of taxation in terms of (1) who pays the amounts of money actually sent into the Treasury, and, (2) the "excess burden" or welfare costs of taxation. Both of these costs are assumed to be objective and measurable.

Buchanan takes a very different approach to the issue of tax incidence. Specifically, he was the first modern scholar to examine the relationship between taxes *as costs of public goods* and the importance of those taxes in democratic decisionmaking. Neoclassical tax incidence theory, according to Buchanan, "examines the choice behavior of individuals and firms, but this is not the choice behavior that involves either the financing of public goods or the selection among taxing alternatives."[13] The individual or firm is assumed by the neoclassical theory "to be subjected to an imposed change in the alternatives of *private or market choice*" (emphasis in original).[14]

Neoclassical tax-incidence theory is concerned almost exclusively with the tax-induced changes in the costs of undertaking *private* production, investment, and consumption decisions, but lacks a theory of public choice. The analysis yields no information about the (subjective) cost of *public* goods.

With the neoclassical approach to tax incidence theory the economist quite naturally views his role as one of adviser to political decision makers. If the economist can identify the effects of a tax on the economy, his role is to advise the presumably benevolent political authorities as to which type of tax would raise the "desired" amount of revenue and at the same time minimize the "excess burden" on society. According to this viewpoint, the economist's role is to construct a social welfare function, even if the members of society, i.e., taxpayers, have no

input into the construction of the social welfare function or to the choice of tax instruments.

Buchanan has long recognized that this approach is inherently authoritarian, for in the name of maximizing some idealized notion of "social welfare," it ignores the preferences of those who comprise the society. For example, neoclassical public finance theory holds that individuals would prefer a "lump-sum" tax to an excise tax that raised the same amount of revenue because the former causes no excess burden. But to reach this conclusion, writes Buchanan,

> the economist must assume that the taxpayer is exclusively interested in the post-tax changes in his position and that he is indifferent among tax instruments otherwise. But there are obviously many reasons why the taxpayer may not evaluate alternative tax instruments in the same way that the applied welfare economist evaluates them. The taxpayer might, in the first place, prefer to suffer the higher measurable cost imposed by the excise tax because of the wider range of personal options that this form of tax allows [i.e., to avoid an excise tax on liquor by not purchasing it]. This option feature may well outweigh the excess burden. In the second place, the taxpayer may prefer the excise tax on liquor for sumptuary reasons even though he knows that he, too, bears an excess burden. The tax-induced reduction in liquor purchases by others may be more than enough to modify the relative standing of this tax on his preference scale.[15]

Informed by subjective cost theory, Buchanan suggests an alternative approach by asking the fundamental question: "What are the 'costs' of public goods in the genuine opportunity-cost, or *choice-influencing* sense?" (emphasis in original).[16] This question ties costs directly to choice and requires one to identify the choosing agent. The choosing agents are (at least in part) the voters in a democratic decision making structure. Since there are many different types of decision-making structures, democratic and non-democratic, the focus of Buchanan's approach is on how choice-influencing costs affect these decisionmakers in alternative institutional settings. To Buchanan, it is impossible to evaluate alternative tax systems without a theory of public choice, and that theory must be based on the insights of

subjective cost theory.

One of the most important distinctions between Buchanan's and the neoclassical approach to taxation theory was recently described by one of his students, Richard E. Wagner. Wagner observed that much of the "optimal taxation" literature, which has largely ignored Buchanan's work, is labeled "individualistic," but would appear to be anything but. According to Wagner

> It is . . . a curious piece of vocabulary that affixes the designation "individualistic" to an analytic construction in which people are manipulated as objects at the disposal of some type of despot, who is presumed to be benevolent by virtue of being named "Social Welfare Function." . . . [In the optimal taxation literature] policy outcomes are assessed against some transcendent criterion of goodness, independent of any consideration of what the participants might or might not work out among themselves . . .[17]

As an aside, it is interesting that Buchanan's suggested approach to the study of tax incidence has been met with intense hostility by some neoclassical theorists. In 1980 he published *The Power to Tax* (with Geoffrey Brennan),[18] a book that is, among other things, an exposition of Buchanan's brand of tax-incidence theory. One reviewer for the *Economic Journal* was so offended by the book that he called the authors "fascists" for merely recommending that citizens should be given a greater voice in the choice of tax instruments.

In *The Power to Tax* Buchanan and Brennan disagreed with economic orthodoxy that broad-based taxes are the most "efficient" tax structure. They argued that a system of multiple excise taxes, rather than a few broad-based taxes, would give taxpayers more control over government by permitting them to escape taxation by reducing their purchases of heavily-taxed items. Altering one's consumption patterns in this way would be a way of "protesting" against excessive government spending.

Buchanan's subjectivist cost theory has colored his views of many economic phenomena besides tax incidence. For example, in criticizing benefit/cost studies of governmental programs, Buchanan reminds us that the costs that are discussed in such studies are not choice-influencing costs. Thus, their usefulness is limited at best, and misguided at worst.

In real-world political settings, the costs that influence the

choice calculus of an individual voter are his or her own personal share in the costs of government in terms of the alternatives foregone. *The distribution* of taxes certainly makes a difference in the evaluation of governmental programs, but this is ignored by benefit/cost studies.

Subjective Cost, Public Choice, and Fiscal Institutions

Buchanan's subjectivist roots have also led him to the conclusion that "institutions matter." This may sound simplistic, but to many economists the notion that the means of making choices influence the choices themselves may imply irrational behavior. Buchanan has ignored this criticism, however, and has demonstrated throughout his career how the institutions of fiscal choice *do* matter because they influence public choices.

As Buchanan and Wagner have written, "individual choice behavior is affected by the costs and benefits of choice alternatives as these are perceived by the chooser, and not as they may exist in some objective dimension necessarily measurable by third parties."[19] Furthermore, "different tax institutions will exert differing effects on the individual's perception of his share in the costs of public services. From this, it follows that the form of tax institution, or the tax structure generally, can affect budgetary choices."[20] And, according to Buchanan and Wagner, it is *perceptions* of individuals concerning the differential effects of fiscal institutions that are relevant to public choice.

This type of thinking is at the heart of much of "the new public finance," which Buchanan has had an important role in establishing. One example of this new approach is the literature on "fiscal illusion." According to the so-called fiscal illusion hypothesis, complex and indirect payment structures create a fiscal illusion that will systematically produce higher levels of government spending than those with single-payment structures. In essence, complex and indirect tax structures weaken the cost signals upon which public choices are based.

This notion is similar to the analytical basis of the psychological literature on information processing.[21] In that literature the degree to which any message is understood varies directly with the strength of the particular signal to be received and inversely with the noise present when the signal is transmitted. It is easier, for instance, to hear what someone says

in a room that is not crowded and filled with background chatter. The fiscal illusion literature espouses a similar interpretation of economic phenomena.

Thus, the size of governmental budgets will be directly related to the complexity and indirectness of tax systems. The *perceived* or choice-influencing costs will be lower under indirect than direct taxation, and will be lower under a multiplicity of tax sources than under a system that relies heavily on a single source. Indirect taxation, therefore, is likely to lead to greater budgetary expansion. Casual evidence supports this hypothesis, as does a body of economic research.[22]

Nevertheless, "orthodox" public finance theorists have largely neglected the theory of fiscal illusion. A reason for this neglect, according to Buchanan and Wagner, is that the orthodox theory "defines rational behavior in terms of objectifiable magnitudes and, furthermore, embodies the hypothesis that . . . persons do not systematically err. The subjectively determined perceptions of persons . . . have been neglected."[23] Not all economists, however, have ignored subjectively determined perceptions, such as those embodied in the fiscal illusion literature. "The . . . Austrian School of economists, along with a more specialized tradition in cost theory centering on the London School of Economics in the 1930s, provide notable exceptions."[24]

The theory of fiscal illusion has led to a greater understanding of the effects of alternative tax systems. For example, one reason the inflation tax is so pernicious is because it reduces the *perceived* cost of government. Debt-financed budget deficits are also better understood once one incorporates a subjectivist view of cost. Buchanan's decades-long research on the public debt demonstrates as much as anything the importance of Austrian-school insights to his contributions to economic theory.

Buchanan and the Public Debt Controversy

Buchanan has been involved in the public debt controversy for over 30 years. He never accepted the dreamy world of Keynesian interventionism, wherein a benevolent government, faithfully obeying the academic economic sages, could "stimulate" the economy through deficit spending. Nor has he accepted the technocratic world of Robert Barro and other believers in the Ricardian "equivalence theorem," which holds that there is no

fundamental difference between debt and tax finance. Buchanan has long maintained that federal deficit spending is destructive, for it crowds out private spending and imposes burdens on future generations.

The reason why Buchanan has differed from these schools of thought, on the issue of deficit finance, is his insistence that "institutions matter," which is deduced from his subjectivist cost theory. Deficit spending allows the governmental sector to replace or crowd out private spending because,

> the replacement of current tax financing by government borrowing has the effect of reducing the "perceived price" of governmental goods and services. This "relative price" change embodies an income effect of the orthodox Hicksian sort, and this income effect will generate some attempted increase in the rate of private spending. . . . To the extent that the costs of governmental goods and services are perceived to be lowered by any degree through the substitution of debt for tax finance, the "relative" price change will be present.[25]

Furthermore, the reason why deficit spending leads to governmental expansion is that in response to a reduction in the perceived price of publicly-provided goods and services, taxpayers "increase their demands for such goods and services. Preferred budget levels will be higher, and these preferences will be sensed by politicians and translated into political outcomes."[26]

Money Creation and Subjective Cost Theory

Buchanan's views of the inflation tax are also colored by subjectivist insights. Much has been written about how inflation effectively constitutes a "tax" on privately-held wealth. But inflation is not really equivalent to a tax, because "no explicit political discussion and decision takes place on either the source or the rate of tax to be imposed."[27] Consequently, "individual citizens are likely to be less informed about the probable costs of an inflation tax than they are about even the most indirect and complex [tax] levy."[28]

Once again, choice-influencing costs are altered by real-world fiscal institutions. But in this instance, the consequences are perhaps even worse than with deficit finance. The problem is

that:

> the tax signal under inflation is overwhelmed by the accompanying noise which takes the form of rising prices. . . . Psychologically, individuals do not sense inflation to be a tax on their money balances; they do not attribute the diminution of their real wealth to the legalized "counterfeiting" activities of government. Rather, the sense data take the form of rising prices for goods and services purchased in the private sector. The decline in real wealth is attributed to failings in the market economy, not to governmental money creation. . . . Inflationary finance, then, will generally produce an underestimation of the opportunity cost of public services, in addition to promoting a false attribution in the minds of citizens as to the reason for the decline in their real wealth, a false attribution that nonetheless influences the specific character of public policies.[29]

The so-called inflation tax is pernicious not only because it is a hidden tax on privately-held wealth, but also because it leads to false perceptions of the cause of the inflation. Political demagoguery adds to the confusion, as politicians are naturally inclined to lie to the public and blame the inflation on greedy capitalists, farmers, mortgage bankers, and others in the private sector. The proposed solution is typically to place even more power in the hands of the inflation-generating governmental authorities.

Methodological Individualism and the Market Process

A rigorous application of methodological individualism is perhaps what most separates the Austrian and Public Choice schools from most others. The idea that the individual should be the unit of analysis has spared public choice and Austrian economists from many of the mistakes of what might be called collectivist economics. The Austrians, for example, have exposed a great deal of macroeconomic nonsense due to the fact that Keynesian theory largely ignored aggregation problems. The Austrian conception of markets, based on the interaction among

individuals and on man's inherent "propensity to truck, barter and exchange," is also more useful and informative, in my view, than the perfect competition model.

Buchanan and other public choice theorists have greatly improved our understanding of the political process by scrapping the "organic" view of collective action, which describes government, more or less, as a benevolent despot, making decisions that are assumed to be in "the public interest."

Not so long ago, in 1968, Buchanan remarked:

> Most . . . economists take an approach different from my own, and one that I regard as both confused and wrong. In my vision of social order, individual persons are the basic component units, and "government" is simply that complex of institutions through which individuals make collective decisions, and through which they carry out collective as opposed to private activities. Politics is the activity of persons in the context of such institutions.[30]

Of course, the economics profession has changed significantly since then, particularly in light of the public choice revolution. Methodological individualism has replaced more collectivist views in academic circles.

Nevertheless, it is far from clear that there has been a decisive "victory." Social welfare functions still clutter the economics journals. Moreover, there is no shortage of recommendations for government intervention in the name of the mythical "public interest." Proponents of methodological individualism have made great strides, but the collectivist mind set dies a slow death.

Buchanan has also long been considered a proponent of the Austrian view of the market process. In this regard he is more than just a "fellow traveller"; his work has played an important role in helping to distinguish between the theory of the market as a process and the alternative, neoclassical theory of competitive equilibrium. Thus, in addition to his seminal work on subjective cost theory, Buchanan has helped clarify the Austrian view of the market as a process.

In his 1963 presidential address to the Southern Economic Association, Buchanan explained how the economics profession was apparently being led astray by its focus on the "theory of resource allocation." He forcefully argued that the standard

neoclassical definition of economics as the study of the allocation of scarce means among competing ends "has served to retard, rather than advance, scientific progress."[31] The reason for this, according to Buchanan, is that there is very little economic content in much of modern economics. What neoclassical economics, all too often involves is a computation problem, the computation of equilibrium prices, for example, which "to the subjectivist, [seems] an absurd exercise."[32]

A good example is the work of Nobel Laureate Tjalling Koopmans, who began his career by working out the optimal allocation of a set of tankers carrying oil across the Atlantic during World War II. Buchanan properly labels such work as engineering, not economics, and claims that he must have been "a confirmed subjectivist long before I realized what I was because I recall thinking in 1946, when Koopmans was lecturing . . . at the University of Chicago, that there seemed to be absolutely no economic content in what he was doing. . ."[33]

Buchanan has attempted to persuade the economics profession to abandon its fixation on allocation problems per se, for "if there is really nothing more to economics than this, we had as well turn it all over to the applied mathematicians."[34] This does appear to be the direction the profession has been heading, for "developments of note . . . during the past two decades consist largely of improvements in . . . computing techniques, in the mathematics of social engineering."[35] Instead of becoming weakly-trained mathematicians (at least by the standards of professional mathematicians), Buchanan suggested replacing the theory of resource allocation with the theory of markets. This would require paying more attention to

> a particular form of human activity, and upon the various institutional arrangements that arise as a result of this form of activity. [Namely,] man's behavior in the market relationship, reflecting the propensity to truck and to barter, and the manifold variations in structure that this relationship can take.[36]

These, Buchanan has written, are the proper subjects of economics.

This approach helps us understand why, in perfect competition, there is no competition (or any trade, for that matter). It also reveals how a market is not competitive by definition, as in the neoclassical model, but that a market

becomes competitive. “It is this becoming process, brought about by the continuous pressure of human behavior in exchange, that is the central part of our discipline, . . . not the dry rot of postulated perfection.”[37]

Thus, Buchanan’s view of the market system may properly be labeled Austrian. Furthermore, he has urged us to apply this same notion of the economic process to the study of political institutions. This is why public choice theory is largely a study of political *processes*, with policy recommendations usually focusing on altering institutional processes, rather than political outcomes or end states.

The Importance of Austrian Economics to Public Choice

Buchanan has done seminal work in many areas of economics, but his Nobel Prize was awarded primarily for his role in establishing, with Gordon Tullock, the subdiscipline of public choice. As this paper has shown, many of the essential principles of public choice (and of “the new public finance”) have subjectivist or Austrian roots. This fact doesn’t seem to have been sufficiently appreciated by the economics profession, however, for a number of reasons.

One possible reason, Buchanan writes in *Cost and Choice*, is that “it is not easy to question long-accepted precepts.” He further confessed that he has “found it difficult to prevent the analysis [in *Cost and Choice*] from lapsing into the kind of conventional [neoclassical] methodology that I have often used in other works.”[38] Moreover, many economists may balk at seriously considering the impact of subjectivist insights, writes Buchanan, because “in effect, the incorporation of the London [or Austrian] conception of opportunity cost amounts to transforming one of the foundation stones of economic theory. [However,] only when this basic modification is completed can real progress toward changing the superstructure [of economics] be attempted on a large scale.”[39]

The public choice revolution provides supportive evidence for this conjecture, since many insights in public choice have subjectivist or Austrian roots. However, there are many instances where the public choice revolution has taken a step backward, in my view, because of insufficient attention paid to these roots. One should not be overly critical of public choice economists, however, for in a recent article Buchanan himself seems to have

forgotten his subjectivist roots, thereby walking into a theoretical and public policy mine field.

In a paper entitled "Rent Seeking, Noncompensated Transfers, and Laws of Succession,"[40] Buchanan analyzes the supposed inefficiencies generated whenever potential heirs "compete" for an inheritance. The basic hypothesis is that the "investment of effort, time, and resources in this rent-seeking activity will be socially wasteful."[41] The behavior of children, as potential heirs, is assumed to be analytically identical to the behavior of lobbyists for protectionism, price supports, and all other sorts of government-generated monopoly rents. "To . . . potential recipients [of a bequest]," writes Buchanan, "any such value becomes precisely analogous to a rental opportunity that has been artificially created. The frugal rich man whose fortune must be transferred by gifts or bequests stands . . . in precisely the same relationship as Queen Elizabeth before her courtiers when she announced the possible assignment of a playing-card monopoly."[42]

This logic led Buchanan to recommend governmentally-imposed restrictions on the disposition of inheritances, for "once the probable emergence of wasteful rent seeking is acknowledged . . . the efficiency basis for the argument against any and all [government] restrictions on the transfer power [of individuals] vanishes."[43]

Ironically, this argument appears to have much in common with the type of reasoning that Buchanan so effectively criticized in *Cost and Choice*. Specifically, he assumes that benefits and costs are *objective* in order to conclude that "all noncompensated transfers are rents to the recipients."[44]

Gifts and bequests are labeled "noncompensated transfers" in Buchanan's analysis because there is no objectively measurable "payment" for these "transfers." But surely such gifts involve implicit, mutually-advantageous exchanges. In the case at hand, there is an exchange of tangible wealth for psychic income. Altruistic behavior toward the donor is "exchanged" for a more tangible form of wealth. Since such exchanges have persisted for millennia, it is reasonable to assume that there must be "gains from trade" to the participants.

This latter interpretation is consistent with the subjectivist principles Buchanan has advocated throughout his career. But in a bizarre repudiation of those principles—at least in this particular paper—Buchanan chooses to ignore them. "To the extent that gifts and bequests are literally payments for equal

values received in exchange . . . there is no net transfer of value among persons involved and there is no incentive for the emergence of rent-seeking behavior. Hence, for purposes of the analysis in this paper, fully compensated transfers of value can be neglected."[45]

By ignoring this elementary subjectivist insight for the sake of argument, Buchanan renders his case for governmental controls of inheritance untenable. His case is based on neoclassical notions of efficiency, namely, that such "rent seeking" is "socially wasteful." But as he also stated in an earlier work, since individuals base choices on data that are inherently subjective, the economist can identify waste in the actions of other people only by imposing his own standard of value.[46] And this is what Buchanan appears to be doing in this essay. Such work can only impede the public choice "revolution," however, by lending credence to public choice critics who claim that much of public choice is simply a political crusade "masquerading as science."[47]

A second example of how ignoring subjectivist or Austrian insights has impeded research in public choice is a contradiction in the work of Robert Tollison, one of Buchanan's most prolific students. Following Buchanan's advice on viewing the market as a process, rather than as an equilibrium condition, Tollison has written that:

> when competition is viewed as a dynamic, value-creating, evolutionary process, the role of economic rents in stimulating entrepreneurial decisions and in prompting an efficient allocation of resources is crucial. . . . [P]rofit seeking in a competitive market order is a normal feature of economic life. The returns of resource owners will be driven to normal levels . . . by competitive profit seeking as some resource owners earn positive rents which promote entry and others earn negative rents which cause exit. Profit seeking and economic rents are inherently related to the efficiency of the competitive market process. Such activities drive the competitive price system and create value (e.g., new products) in the economy.[48]

But a few pages along in the same article Tollison condemns as "wasteful rent seeking" all forms of non-price competition "in imperfectly competitive markets." The contradiction lies in the

fact that if one views competition as a "dynamic, value-creating, evolutionary process," as Tollison initially suggested, then the forms of non-price competition that he labeled wasteful—advertising, R&D spending, product differentiation—are viewed as an essential ingredient of the competitive process, not as wasteful rent-seeking or monopolizing devices.[49]

There is now an emerging literature in public choice that labels almost all forms of private business behavior as "wasteful rent seeking."[50] Oddly, much of this literature recommends government regulation as a means of reducing such waste. But surely, granting even greater powers to government will lead to more, not less, rent seeking.

I have written elsewhere[51] how such bizarre reasoning has come about, at least partly, because of the failure of public choice economists to pay sufficient attention to the fundamental Austrian concepts of subjectivism, methodological individualism, and the concept of the market as a dynamic process. This is why students of public choice, above all, should more fully appreciate the subjectivist roots of James Buchanan's economics.

Finally, it is worth repeating that I have not attempted a comprehensive review of the impact of Austrian economics on the work of James Buchanan. Such an undertaking would require at least a book-length treatment. My only objective has been to point out a relatively neglected aspect of at least some of Buchanan's work, namely, its subjectivist roots.

Subjective cost theory is not at the heart of all of Buchanan's work; perhaps not even most of it. At times his writing seems strictly positivist. But a case can be made that many of his most important contributions to economics may be properly labeled "Austrian." Moreover, an equally strong case can be made that the work of Buchanan, and of other public choice scholars, is weakest when it neglects fundamental Austrian-school insights.

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Notes and Comments

The DMVP-MVP Controversy: A Note

Walter Block

We are all familiar with the process of discounting the future.

From the earliest courses in economics we are taught that money receivable right now is not the equivalent of money receivable one year hence; that money receivable one year from now is not equivalent to money which will fall in to our clutches after a period of two years. And not just because inflation may erode part of the value, or because of the risk of never seeing the money. Even in a perfectly certain world of no inflation, where all accounts receivable were fully guaranteed, we would still value money more, the sooner we were to receive it.

If this were not so, we could never act in the present,[1] for every action done now *could* have been done in the future. The fact that we choose to act in the present, when we could have waited, shows that we prefer the present; that we enjoy goods, the sooner, the better. But the future will present the same alternatives: action and non action. *Future* action will thus *also* imply time preference for the present, paradoxically. By acting in the immediate future, instead of waiting for the even more distant future, we also show ourselves as present oriented. The only way to illustrate a lack of preference for the present is never to act at all—a manifest impossibility for human beings.

One implication of the foregoing is that we discount money receivable in the future. This is done in accordance with the rate of interest. Simply put, we prefer a dollar today to a dollar tomorrow because we can always put our present dollar in the bank, collect the interest payment, and have more than a dollar. Given a non-inflationary world and a guarantee that the bank will not renege, we are sure to have more in the next period. If the rate of interest is 10 percent, then $1.00 today will be worth $1.10 at the end of one year.

Alternatively, we can say that payments receivable in the

future are *discounted* to obtain present discounted values. Thus $1.00 due at the end of one year is worth $.90 today, for $.90 is the amount of money that has to be put in the bank today for it to turn into $1.00 at the end of the year (ignoring rounding errors and compound interest). We can say, then, that $.90 is the present discounted value of $1.00 receivable in one year.

All of this is elementary, and accepted by the entire economics profession. It would not be worth mentioning, but for the fact *that* virtually all economists refuse to *apply* the doctrine of discounting future income streams to the case of marginal productivity. Specifically, in the view of most economists, there is a tendency, on the market, for factor payments to equal the Marginal Value Products (MVP) of the factors. Abstracting from questions of perfect or imperfect competition, this means, for example, that in the view of the profession, wages will come to equal the value of the marginal product of labor (the marginal physical product of labor multiplied by the price at which the product can be sold).

In contrast, the Austrian school[2] insists that what tends toward equality with wages is not MVP, but *discounted* MVP, or DMVP. There is no real point at issue when work on immediate consumption goods is considered. For example, the wage of the grocer's clerk, it is admitted by both sides, will tend to equal his MVP, because there is virtually no time that elapses between the labor and the consumption of the final good. Since there is no time under which the discounting process can work, DMVP reduces to MVP.

The divergence between the Austrian and orthodox schools is reached in the cases where labor is added to the value of intermediate or higher order goods. Consider a year's labor on a process that will not reach the consumption stage for a number of years. Here, the Austrians insist that cognizance be taken of the time element; that just as we all commonly discount values receivable only in the future, we not falter when it comes to applying this insight to discounting the value of labor imputed to products which will not be usable until some years have passed. The Austrians argue, in other words, that *all* values receivable in the future be discounted by the rate of interest, even the values of the marginal product of labor, or any other factor, when such value cannot be used in consumption until an elapse of time has taken place.

Why do the non-Austrian economists refuse to follow the Austrians on this seemingly straightforward application of the

principle of discounting held by all? This is difficult to answer since most economists completely ignore DMVP, concentrating on MVP instead. Therefore the few orthodox economists who even *mention* DMVP (rejecting it in favor of MVP) are of great interest.

In the view of Sir John Hicks,[3] DMVP and MVP are consistent with each other; they are, in effect, alternatives, and either can be reasonably chosen. In Professor Hicks's words: "This conception [DMVP] is intermediate between 'net productivity' and 'marginal productivity,' as we have defined them; just as they are consistent with each other, since they describe the same phenomenon under slightly different assumptions, so 'discounted marginal productivity' is consistent with them."[4] And what are these "slightly different assumptions" that distinguish "net" and "marginal" productivity? Hicks answers: "'Net productivity' assumes the methods of production to be fixed; marginal productivity assumes them to be variable."[5] But this is puzzling, for it is nonsense to suppose that the methods of production are fixed. What makes these proceedings mysterious indeed is that no one knows this better than Professor Hicks himself, for in his very next sentence he tells us: "In fact, there can be very little doubt that [the methods of production] nearly always are variable to some extent; and consequently the marginal productivity theory has a deeper significance than the [net productivity theory]."[6] If this is so, it seems hard to conclude that "net" and "marginal" productivity theories are equivalent.

But what of our main point: Are DMVP and MVP theories equivalent? What reason does Professor Hicks give in support of his view that these latter two are consistent with each other? In point of fact, he gives *no* reason to support this conclusion. What he does say is that if we make the highly artificial assumption that the period of production ("the length of time elapsing between the payment of labor and the sale of the product") is fixed, then, "in order to maintain the condition of equality of selling price and cost of production, the cost of [any] additional circulating capital [equal to the wage paid multiplied by the period of production] must be deducted from the marginal product, i.e.[,] the marginal product (estimated in this manner) must be 'discounted.'"[7]

But this statement poses more problems than it answers. First there is the question of exactly *what* is to be deducted from the MVP. In the Austrian view, the deduction is equivalent to

discounting the MVP by the rate of interest. In Hicks's view, what is to be deducted from the MVP is nothing based on the interest rate, but rather, "the cost of additional circulating capital . . . [which comes about] . . . when the amount of labour employed slightly increases."[8] Circulating capital, it will be remembered, is equal to "the wages paid, multiplied by the length of time elapsing between the payment of labor and sale of the product." Why this amount is selected, rather than any other, is never explained. Nor are we given any reason to believe that a discount, so constructed, is equivalent to the discount based on the market rate of interest.

On the contrary, there is every reason to suppose that the two methods will give *different* results. In the Austrian view, the discounting period is between the time of the payment of labor and the *final* sale to the consumer. In the Hicksian vision, the relevant time, the period of production, is measured from payment of labor to the sale of the product. For Hicks, then, *any* sale will do, whether or not it is to the final consumer of the good.

For Austrians this matter is not at all arbitrary. The reason final consumption is insisted upon is that this alone is consistent with the essence of the whole process of production. The end, the goal, the final aim of production is *consumption*. It is not until the process has reached the consumption phase that it can be said to be completed in any meaningful sense. A worker's efforts have no value whatsoever if they are not eventually carried through to the consumption level. These efforts, then, must be discounted back to the present from the time that they come to fruition, that is, from the time that they become embodied in an item of final consumption. If this were not so, then the concept of DMVP would make no sense. For if every time a change in vertical integration of industry occurred, and there were greater or fewer stages of production between the worker's efforts and the final consumption stage, this would mean an increase or decrease in the number of sales that the good had to go through before it reached the consumer. But if this is so, it would necessarily imply a change in the "length of time elapsing between the payment of labor and the sale of the product." Thus, every time vertical integration increased, and more stages of production were created, this "period of production" would decrease; if the period of production decreases, then, for Hicks, the circulating capital must fall, since circulating capital is the wage multiplied by the period of production. And if circulating capital falls, then the

DMVP must rise, since DMVP equals MVP minus a decreasing circulating capital, and MVP stays the same. Alternatively, vertical disintegration would imply a decrease in DMVP. Thus, a purely *legal* phenomenon, the ownership and organization of business enterprise, would intimately affect a purely *economic* phenomenon, the DMVP, which is defined in terms of productivity and the interest rate, and not at all in terms of mere legalistic ownership and sale.

Hicks gives no reason for wanting to "maintain the condition of equality of selling price and cost of production." Indeed, the Austrian view would be the diametric opposite. Here, there is no assumption that merely because businessmen invested in a product, and undertook certain expenses and costs, that *therefore* the consumer will spend an amount of money necessary to make the process profitable. This could only occur if we assumed perfect knowledge and hence an evenly rotating economy, an experience denied to man on this side of the Garden of Eden.

Finally, and most importantly, this scenario of Hicks's is *not* an indication that DMVP and MVP theories are consistent with each other, as Hicks supposedly sets out to show. Rather, it is a *denial* of that claim. If we accept all the assumptions made, it is an *acceptance* of the DMVP view ("the marginal product must be 'discounted'") and *hence* a *rejection* of the MVP theory, which denies that any such deduction must be made.

We need not, of course, accept the fixity of the period of production; we can, with Hicks, in his very next paragraph, "assume that the period of production is variable."[9] If we do, we will learn that "the additional product created by additional labour under the circumstances (of variability of the period of production) is a true marginal product, which in equilibrium must equal the wage, without any discounting."[10] So we see Hicks in his true colors: a complete reversal of field, where the MVP theory is now to be accepted, fully, and the DMVP theory to be rejected; again, far from his stated view that they are equivalent.

Undaunted by this, in his most recent conclusion, Professor Hicks completely reverses field once again and concludes: "Such a modernized wage-fund [the DMVP theory, with the realistic assumption of a variable period of production] is perfectly consistent with marginal productivity [MVP]; and I have often been tempted to use it on a considerable scale in this book. But I have concluded that the advantages of such a treatment would not compensate for the obstacles it would probably place in the

way of readers brought up on the English tradition."[11] In other words, DMVP and MVP theory are once again fully compatible, but MVP theory is preferable on aesthetic grounds! What is to be done? I think we can conclude that MVP and DMVP theory are logically inconsistent, one denying the need for any discounting of MVP and the other insisting upon it.

I turn next to Professor Earl Rolph,[12] who also sees a possible reconciliation of the DMVP and the MVP theories. Defining the former as the view that "[factors] receive the discounted value of their marginal products," Professor Rolph sees the dispute as merely a verbal one: "An examination of the context in which these two propositions appear in economic discussions reveals that the term 'product' does not mean the same thing."[13] In the MVP view, "'product' refers to the *immediate* results of present valuable activities" while "in contrast, the term 'product' in the phrase 'discounted value of marginal product' refers to some *remote* product" (emphasis is mine).[14]

Now this "remote product," to the Austrian, is *consumption*, the be-all and end-all of production. True, if one is prepared to admit that any immediate results of an industrial process, such as a hole in the ground, in preparation for a new dwelling, that will not result in consumption goods for years to come, are *equivalent* to a final product, then one can agree with Professor Rolph that "the only apparent difference between the two views is a choice of words to say virtually the same thing."[15]

The Austrians, however, are not willing to make such a facile equation. It is only in the evenly rotating economy, where full and perfect information of all future events is given to all market participants, that each and every immediate result of an industrial process in the higher orders of capital goods will be guaranteed to come to fruition, eventually, as a consumption good. In the real world, *not all* "immediate results" of production will be so blessed. Many holes in the ground will remain just that —holes in the ground. Be the intentions of the entrepreneurs ever so well motivated, they will not all be filled up with houses.

Moreover, even if all intermediate efforts are crowned, eventually, with final consumption results, the equation of DMVP and MVP is still invalid. Even in this case there would be a *time element* differential to distinguish between them. The higher the order of production, the further removed, in time, from consumption.

As Professor Rothbard states:

> Every activity may have its immediate "results," but they are not results that would command any monetary income from anyone if the owners of the factors themselves were joint owners of all they produced until the final consumption stage. In that case, it would be obvious that they do not get paid immediately; hence, their product is not immediate. The only reason that they *are* paid immediately (and even here there is not strict immediacy) on the market is that capitalists *advance* present goods in exchange for those *future* goods for which they expect a premium, or interest return. Thus, the owners of the factors are paid the *discounted* value of their marginal product.[16]

It must be concluded, then, that an immediate result of a higher order production process is *not* equivalent to consumption; and that factors do *not* receive the undiscounted value of their immediate marginal products. Rather, factors tend, in the unhampered market, to receive the *discounted* value of what their marginal products are thought to be worth as potential, future consumption goods.

In the remainder of this paper I shall construct another objection to DMVP theory, and then try to show that it too fails to disprove the validity of DMVP.

According to this objection, DMVP theory is satisfactory for the intertemporal level, but not on the intratemporal. Intertemporally, it makes sense for the value of a factor to be determined, in part, by how many years away from final consumption it lies. If factor *A* is to be used *now*, and factor *B* one year from now, then the price of *B* must be adjusted downward accordingly; *B* must sell for less than *A*. But suppose *A* and *B* are identical! If intratemporal equilibrium is to be attained, then identical factors must receive the same remuneration. *B*'s price cannot then be adjusted downward by the discount, as DMVP theory would have it.

First, suppose that there are two equally skilled carpenters: Ike and Mike. They are exactly alike insofar as carpentry abilities are concerned. They each, therefore, have the same MVP. An entrepreneur, employing several other carpenters, will benefit (lose) by the exact same amount whether he hires (fires) Ike or Mike. His revenues will change by the same amount regardless of which carpenter he deals with. Under such assumptions,

intratemporal equilibrium must require that Ike and Mike receive equal wages. If they do not, the familiar market forces will be set up in motion to make sure they do.

But suppose Ike takes a job in a consumption industry, where his work is practically simultaneous with consumption, and Mike finds employment in a higher-order production process, whose fruits will not be available for consumption for 10 years. It would seem, according to DMVP theory, that Mike's wages would have to be heavily discounted, and hence much lower than Ike's. But if this is so, it is in violation of the intratemporal equilibrium that must exist, since we are dealing with equally productive workers, by assumption.

Consider, also, two identical 100 pound bags of coal. Intratemporal equilibrium demands that they receive the exact same price. But if one of them is used for heating a home right now, and the other used in the beginning step of a process which will not be completed for one year, then it would seem that this latter bag of coal will have to sell at a lower price, low enough to reflect the discount called for by the DMVP theory.

The examples could be multiplied without limit.[17] Fish is used for immediate consumption—and also for salting and curing. Some wine is allowed to ferment for one year. But other wine, identical to the first, at the outset, is allowed to ferment for longer periods of time. DMVP theory, it is contended, cannot be correct if it calls for different prices for the same identical good, service, or factor. And yet if this is not what would satisfy DMVP, it is hard to see what would.

The way to solve this paradox is to take this objection "by the horns" and show it to be without merit. Accordingly, for the sake of argument, assume its analysis is correct: if the MVP of the bag of coal to be used up for consumption is $100, and the rate of interest is five percent, then it follows ineluctably that the equilibrium DMVP of an identical bag of coal, to be used in a one year long process, is $95, ignoring compounding complications. So the intertemporal or time market may be in equilibrium, but the spot coal market certainly cannot, for one bag of coal sells for $100, while another, identical to the first in every way, sells for $95. The only problem is, entrepreneurs at the higher level of production will not be able to buy any coal! Why should they be able to if they are only willing to pay $95, for something that coal owners are able to charge $100 for?

What must then happen? The entrepreneurs at the higher stage of production will have to abstain from all projects using

coal that cannot attain a DMVP of at least $100, the alternative cost of coal. But at a five percent interest rate, in order to reach a DMVP of $100, the MVP must be $105.

In the words of Professor Rothbard:

> The more remote the time of operation is from the time when the final product is completed, the greater must be the difference allowed for the annual interest income earned by the capitalists who advance present goods and thereby make possible the entire length of the production process. The *amount* of the discount from the MVP is greater here because the higher stage is more remote than the others from final consumption. Therefore, in order for investment to take place in the higher stages, their MVP has to be far higher than the MVP in the shorter processes.[18]

Thus we see that this objection is without merit. The DMVP's must be equated, in the evenly rotating economy, in all areas of production, not the MVP's. Coal will have the same price (assuming equal quality) wherever it is used in the structure of production: for consumption goods, or in long-term heavy industry. But the further away, in time, from consumption a process is, the higher will its MVP have to be to make its employment there profitable, and to result in a DMVP equivalent to the lower orders of production, and in consumption.

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[1] Ludwig von Mises, *Human Action*, 3rd ed. (Chicago: Henry Regnery, 1966), p. 484.

[2] Murray N. Rothbard, *Man, Economy, and State* (New York: Van Nostrand, 1962), pp. 406–09 and 431–33; and Eugen von Böhm-Bawerk, *Capital and Interest*, vol. 2 (South Holland, Ill.: Libertarian Press, 1959), pp. 302–12.

[3] John R. Hicks, *The Theory of Wages*, 2nd ed. (New York: St. Martin's Press, 1963).

[4] Ibid., pp. 17ff.

[5] Ibid., p. 14.

[6] Ibid.

[7] Ibid., pp. 17ff.

[8] Ibid.

[9] Ibid., p. 14.

[10] Ibid., pp. 17ff.

[11] Ibid., pp. 17–18ff.

[12] Earl Rolph, "The Discounted Marginal Productivity Doctrine," in *Readings in the Theory of Income Distribution* (Homewood, Ill.: Richard D. Irwin, 1951), pp. 278–93.

[13] Ibid., p. 279.

[14] Ibid., pp. 279–80.

[15] Ibid., p. 282.

[16] Rothbard, *Man, Economy, and State*, p. 432.

[17] See Böhm-Bawerk, *Capital and Interest*, for an enumeration, as well as for an eloquent and fully complete analysis.

[18] Rothbard, *Man, Economy, and State*, p. 409.

Misconceptions about Austrian Business Cycle Theory: A Comment

James Clark and James Keeler

A recent set of articles (see Michael Bordo 1986; Roger Garrison 1986; Herschel Grossman 1986; Gottfried Haberler 1986; Axel Leijonhufvud 1986 and Leland B. Yeager, 1986) reviews the Austrian theory of the business cycle in comparison to other theories. One of the main issues they consider is the neutrality of disturbances in the money supply, and on this point Thomas Humphrey (1984) is cited as refuting the Austrians' claim to be unique in that they consider relative price changes (Yeager 1986, p. 382). Humphrey quotes and summarizes several quantity theorists and Monetarists on the real effects of a monetary disturbance and concludes that rather than being distinct, the Austrian theory is quite similar to that of the Monetarists both in its explanation of how money affects the economy and in its policy implications.

This note contends that beyond the surface similarity of monetary nonneutrality there are significant differences between the Austrian and Monetarist business cycle theories. The theoretical approaches diverge in the use of macroeconomic aggregates. Different concepts of the monetary mechanism result in different implications about what relative price changes occur and their causes, and about the types of unemployment. In the Monetarist view, the economy will return to its original equilibrium structure, while the Austrian view denies that possibility. Humphrey misrepresents the Austrians and the Monetarists by neglecting their differences and claiming their theories are essentially the same.

For Monetarists, the appropriate concepts are macroeconomic aggregates, especially real cash balances, non-cash assets, the price level, investment, employment, and income. Their analysis focuses on long-run changes in these aggregates. Friedman's portfolio adjustment mechanism is the response to an increase in the money supply and a decrease in the yield of cash as an asset, relative to non-cash assets, which

then leads to increased spending on newly produced goods and services. Similarly, the Phillips Curve analysis focuses on a relation among aggregates for the price level and unemployment. The recession phase of the business cycle is characterized by cyclical unemployment in response to the general rising real wage. Such real effects focus on macroeconomic aggregates and occur within a temporary adjustment period toward the long-run equilibrium.

Many of these same macroeconomic aggregates are not considered meaningful concepts by the Austrians, who are more concerned with relative changes among the components of the aggregates. Hayek, in discussing the phase of the cycle in which income peaks and begins to decline, stresses changes in the types of investment activities undertaken. The composition of investment spending changes from long-term (early stages in the production process which are removed in time from the actual production of final goods) capital projects to short-term (later stage) investments. This change leads to the unemployment of resources complementary to long-term investment projects. While other Austrians suggest a decrease in total investment during a recession as a cause of unemployment, Hayek maintains that unemployment increases independently of changes in the total amount of investment and states

> whether this [decrease in total investment] is or is not the case is not so important as the fact that the demand for resources which are specific to the early stages . . . will cease and unemployment will ensue here, while the increased demand in the later stages must exhaust itself in a rise in money wages in these stages without creating additional employment [Hayek 1939, p. 28n; see also Hayek 1969, p. 284].

Overall unemployment in the recession phase of the Austrian business cycle theory is not a relation among aggregates, but is frictional and structural and is in response to changes in relative yields of capital types. Further, the inappropriate investment during the expansion phase of the cycle forever changes the distribution of wealth and income, so that the original equilibrium cannot be reestablished (Mises 1963, p. 555). Nonneutralities occur within the aggregates and have lasting effects.

The theoretic constructs are fundamentally distinct for the

two schools of thought and that is evident in their treatments of macro-economic aggregates and in the importance they place on disequilibrium. Humphrey's article shows a misunderstanding of this in the statement:

> with the possible exception of a singular Austrian concern for the composition (as opposed to level) of real output, there is little difference between the two views of the monetary mechanism [Humphrey 1984, p. 14].

Yeager's comments clarify the importance of the difference: that changes in relative prices,

> though crucial to the distinctively Austrian scenario, are mere details in the monetary disequilibrium account of the business cycle. Understandably the monetarists emphasize the centerpiece of their story —a disequilibrium relation between the nominal quantity of money and the general level of prices and wages [Yeager 1986, p. 382].

As the issue of unemployment exemplifies, the two approaches lead to contrasting descriptions, explanations and predictions of business cycle phenomena.

Humphrey correctly chides the Austrians for claiming that Quantity Theorists and Monetarists completely ignore real effects of a monetary disturbance. Even Mises's comments on the quantity theory (Mises 1963, pp. 412–13) appear consistent with the more recent examples given by Humphrey. However, the relative price changes the Austrians and Monetarists describe are not the "exact counterparts" claimed by Humphrey. In the Monetarist theory, institutional rigidities prevent some prices from changing as rapidly as others, resulting in relative price changes and real effects on the levels of aggregates during disequilibrium. Humphrey's review begins with a quote from Alexander del Mar which leaves the impression that the relative price changes are random. His quotes from Irving Fisher and Clark Warburton clearly state that relative price changes are due to some prices adjusting more slowly than others for institutional reasons. Austrian theory has never relied upon this explanation. His reviews of Friedman and Brunner and Meltzer show a role for the interest rate only in changing relative yields between broad aggregates of cash and noncash assets. In contrast, the

fundamental cause in Austrian business cycle theory is that a monetary disturbance distorts the yields of various capital types and alters the time structure of investment allocations (Hayek 1969, p. 277 and Mises 1963, p. 555). The two theories analyze different relative price changes which occur for different reasons.

Humphrey's article does establish that Monetarists consider certain relative price changes. While there are similar general phenomena in the two theories, such as the occurrence of relative price changes, the specific phenomena and the processes that generate them are not similar. Concluding that the two theories are "virtually the same" misrepresents both Austrians and Monetarists.

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Book Reviews

Understanding: A Phenomenological-Pragmatic Analysis. By Gary B. Madison. Westport, Connecticut: Greenwood Press, 1982.

Professor Gary B. Madison, an outstanding proponent of hermeneutics, finds this sort of philosophy beset by unfair criticism.[1] Hermeneutics, which seeks dialogue based on "common understandings,"[2] has been rudely rebuffed by critics guilty of "egregious misunderstandings."[3] Some of these errors are "so to speak, honest ones. . . . Others are, quite frankly, dishonest ones, obstacles deliberately thrown in the path of the uninitiated by opponents of hermeneutics who have every interest in slowing its progress."[4] Some of the "more vituperative critics of hermeneutics, in rejecting it wholesale, discard in the process all claims to intellectual integrity."[5]

Madison does not state whom he has in mind in his charges. His remarks place any reviewer in a difficult position. Whether my remarks are "vituperative" or lacking in "intellectual integrity" must be for others to judge. In an effort to steer clear of such charges, however, I shall for the most part confine myself to an exposition of Madison's own views rather than a criticism of them from my own perspective. I shall endeavor to show that the alleged misunderstandings of the critics in fact accurately characterize Madison's main statement of his approach to the theory of knowledge, his large treatise *Understanding*.[6] Madison escapes relativism only because he uses this term in an idiosyncratic way. As the critics use the term, Madison *is* a relativist. Nothing directly follows from this contention about other philosophers of this movement, e.g., Gadamer and Ricoeur; but for now it is assumed that Madison's own views are similar to those of other hermeneutic philosophers.

The first two of the misunderstandings of hermeneutics Madison has noted can be usefully considered together, as they are closely related. Contrary to criticism, Madison claims that hermeneutics neither rejects reason nor entails relativism. Hermeneutics does not, to be sure, accept "the position that has dominated philosophy since the time of Plato, which holds that human beings are endowed with a special kind of faculty called

reason by means of which they can intuit or otherwise discover absolutely indubitable, eternally valid, objective truths."[7] Claims to truth of this kind are incompatible with the "maintenance of a free and democratic society."

How does that last contention go again? Suppose someone claimed to know with certainty that people should be free to criticize one another. Is this belief inconsistent with a free society? Why does thinking a proposition absolutely true prevent one from listening to criticism of it?

The Declaration of Independence claims certain "truths to be self-evident." Were the signers of the Declaration advancing claims incompatible with the free society they thought they were establishing? Madison may, if he wishes, "bite the bullet" and contend that the signers misunderstood the basis for their own belief in a free society. He can hardly deny that in this and like cases a considerable prima facie case against his views needs to be met.[8]

By the way, if claiming absolute truth *did* create difficulties for existence of a free society, how would this show that we do not have absolutely true beliefs? Perhaps it would be better if we kept our claims to them to ourselves, on this assumption; but that is a different issue.

Instead of a supposed method of attaining truth that has universal validity, hermeneutics, Madison states, "holds to a fallibilist and pluralist view of reason." It denies that the so-called scientific method is the only valid procedure of investigation, regardless of the topic. Like Mises, advocates of hermeneutics distinguish understanding human action from explanation in physics. Both Austrian economics and hermeneutics reject "scientism."

The charge of relativism so frequently directed at hermeneutics also in Madison's view misfires. Hermeneutics does reject the view that knowledge rests on self-evident grounds. But this is far from saying that hermeneutics "license[s] an all pervasive intellectual permissiveness, as immoderate critics would have us believe."[9] Hermeneutics seeks mutual understanding, based on the common grounds, in part unarticulated, that render conversation possible in the first place. We cannot attain *absolute* truth: but we can seek a reasonable consensus.

Madison counters the "foundationalist" view he opposes in the following way: "It is really difficult to know what some critics have in mind when they appeal to absolute ["objective" in

their sense] grounds. An absolute ground would have to be a ground which does not itself have a ground, a groundless ground, which sounds like a meaningless notion . . ."[10]

Madison's argument depends on a blatant ambiguity in the use of "groundless." To claim that a proposition is self-evident is to say that its truth does not depend on something else. Its truth is apparent "on inspection" and requires no further grounds to justify it. But "groundless" in this sense does not mean "arbitrary," a different sense of "groundless": just the point of claiming self-evidence is to say that a proposition is *not* arbitrary. Of course Madison may deny that there are self-evident truths, but this requires argument rather than assertion.

Whether or not "foundationalism" is correct, I certainly do not wish to claim that anyone who rejects this position counts as an irrationalist or a relativist. Whether or not these latter terms apply to a philosopher's position depends, it seems to me, much more on the role it accords reason than on whether it is "foundationalist." Many moral "intuitionists," e.g., think that one can directly grasp the truth of various moral propositions but do not think these derivable from a basic principle or ground. Sir David Ross and H. A. Prichard, who held this position, are not usually thought of as irrationalists.

No formal definition of "irrationalism" or "relativism" will be offered here. But as the critics of hermeneutics use these terms, someone who denies or very strictly limits the ability of reason to attain truth counts as an irrationalist. "Truth" here is understood in a way in which these two statements are *not* equivalent in meaning: (1) "*X* is true" and (2) "A consensus accepts *X*." Further, the truth of the second statement normally does not provide sufficient evidence for the truth of the first statement.

A relativist claims that most or all of someone's beliefs reflect the perspective of a group to which the person belongs. Most people in Western societies give great credence to the laws of physics: as relativists see things, this fact reflects not the unavoidable truth of physics but an assumption present in our modern "worldview." Relativists hold either that people cannot distinguish between what their perspective inclines them to favor and what is true or, more extremely, what someone's perspective suggests to him *is* the truth ("for him" as is sometimes added).

If the disputed terms are taken this way, it will soon be apparent that Madison is both an irrationalist and a relativist. Why then does he deny this? The answer lies in his much more

restricted analysis of the terms, according to which he has indeed been unfairly characterized by the opponents of hermeneutics.

The critics and Madison thus can reach agreement. The dispute over the first two charges arises only because of the differing ways the principal terms in them have been understood by the parties to the dispute.

One further *caveat*. The material presented below does not show that one ought not to adopt Madison's views. It is only an attempt to say what those views are.

To return to the main thread of Madison's case, let us now put his statements within the context of his treatise on *Understanding*. In the Introduction, Madison informs us that by "its very nature, therefore, science is hostile to cultural diversity, for each culture represents a different conception of what reality is, and, from a purely descriptive point of view, there are as many 'realities' as there are cultures. This violates the basic working premise on which science is built: the oneness of truth and reality."[11]

This sounds relativistic, but perhaps Madison himself does not mean to adopt the "purely descriptive point of view." The start of Chapter 1 closes this loophole: "Let us begin by boldly asserting a thesis in violation of all apparent scientific rationality: the understanding of the world characteristic of another culture cannot be adequately expressed in the language of Western science, for science is but one way of analyzing and understanding reality and for this very reason cannot legitimately claim to be universal."[12]

In defense of his denial of universality, Madison cites with favor the hypothesis of Benjamin Whorf that thought is relative to language. The various languages carve up the world in differing ways that are not perfectly translatable from one language to another. Students of Austrian theory will note the radical dissimilarity of Whorf's views with those of Mises. Mises's opposition to polylogism is especially to the point here.

Chapter 3, "Separate Reality," compares in some detail belief in witchcraft with belief in science. Madison relies for his information on witchcraft on the classic studies of the Azande in the South Sudan by Sir Edward Evans-Pritchard. He rightly notes that witchcraft for these tribesmen is a carefully elaborated system. According to Madison, "*A system as such cannot be falsified* [emphasis in original] . . . it is obvious that magic involves circular reasoning. It cannot be criticized for this, however, since circular reasoning is not a defect in any system

qua system. Indeed all systems of belief are circular, including science . . .”[13]

But regardless of what people believe, does not science work in a way that witchcraft does not? Physical bodies obey the laws of gravitation, even if they are located in the Southern Sudan.

To Madison, this point is far from decisive. “The fact of the matter is, however, that magic also ‘works.’ Indeed, it could be laid down as a general principle that any *sufficiently developed system is bound to work* [emphasis in original]. . . . It is extremely difficult, therefore, to see how it could be maintained that science is better, more rational, or truer than magic in the absolute sense of the terms.”[14]

Space does not permit a full summary of Madison’s *magnum opus*, and with some regret one passes by his discussions of analogy, metaphor, and imagination and moves directly to the culmination of the work.

The climax of the work comes in this passage: “As a result of our attempt to overcome the rationalist tradition—*the* tradition in Western thought—we have been led into a position of skepticism.”[15] Madison proceeds to raise against himself the objection that skepticism is self-refuting: “More precisely, when one says that all knowledge is belief and is historically and culturally conditioned (such that there is no one ‘true’ world that is identically the same for all), is he not making a statement that claims to be universally valid and therefore contradicts what it says?”[16]

Our author seeks to escape this predicament by distinguishing sharply between direct experience and theory. Like the Greek skeptic Sextus Empiricus, he thinks it valuable to show the equal “validity” of contradictory beliefs about experience.

If one asks why, Madison replies with perfect forthrightness: “The skeptical critique can begin to have its desired effect only when, as a result of ‘setting things in opposition’ one comes to see the relativity and groundlessness of one’s habitual beliefs. . . . This is anything but a comforting realization. It is, in fact, the ‘dark night’ of the understanding. The state of mind produced by a successful skeptical critique is anxiety.”[17]

To this anxiety, three responses are possible. One can ignore the lesson of skepticism and retreat to one’s previous condition of servitude, i.e., to dogmatism. If one does not seek escape from anxiety, then either one “may lose the battle and, overcome with realization of the folly of all belief systems, succumb to madness.

Or one may win the battle and achieve a kind of knowledge—the knowledge of the ultimate impossibility of knowledge—which can be called wisdom."[18]

We are at last in a position to see why Madison so vigorously repudiates relativism.[19] Relativism denies that there is a reality apart from the various cultural systems of belief. Each society has its own "truth" and there exists no absolute perspective from which the different cultures can be judged.

For Madison, the problem with relativism is not that it repudiates truth but rather that it makes truth too readily accessible. There is indeed a reality beyond our culturally determined outlooks, but of it we can know nothing, other than its bare existence.

Now we can see the basis of Madison's protest. As he uses the term, he is not a relativist, since he does believe in the existence of reality. As the critics see matters, this view is still relativistic since Madison thinks that nothing except the existence of reality can be grasped in a way that is not relative of culture. (A similar point applies to the issue of irrationalism.)

Madison and the critics are both "right," since each group is using the terms "irrationalist" and "relativist" differently. Madison's defense here is as the critics see it, really an admission. Further, Madison's use of the term "relativist" is, to say the least, highly unusual. He is perfectly free to invent a non-standard use of the term according to which hermeneutics is not a relativist view. It is going rather too far to "criticize the critics" for intemperate usage because they, in accord with ordinary usage, conclude that hermeneutics is a type of relativism.

Madison thinks that hermeneutics has been subjected to one more unfair charge. Hermeneutics, contrary to the critics, is relevant to economics. Although he does not mention me, I think his comments refer to a passage of my "Hermeneutics versus Austrian Economics."[20]

Madison's comments are as follows: "The more vociferous critics of hermeneutics inform us that while hermeneutics may have some idle entertainment value as a mode of philosophy, it has nothing whatsoever to say to practicing economists. As evidence they point out that neither Gadamer nor Ricoeur has written on economic issues. This argument is such as to perplex even a hermeneuticist, who is not a person to scorn the values of rational argumentation. If the issue is the relevance of hermeneutics to economics, then it is obviously quite *irrelevant* whether Gadamer or Ricoeur has or has not written on economic

issues. In that case it is up to other people, economists in particular, to draw out the relevant implications."[21]

Though lacking the desire to perplex Madison, I did indeed note that the major hermeneutic philosophers have not written about economic theory. I did not say that neither has written on "economic issues"; Ricoeur has written a number of socialistically inclined essays. Heidegger, to mention someone Madison passes over here, has quite a bit to say about politics.

To turn to the substance of the argument, I do not at all claim that because particular writers have not discussed economic theory, hermeneutics has been proved irrelevant to economics. The comment to which Madison takes exception was but one step in an unsuccessful inquiry to determine why hermeneutics is thought by some to be relevant to economics. If there were a particular economic doctrine associated with the movement, this would of course answer the question. I raised the issue of the hermeneuticists' economic views simply to explore a possible reply to skepticism about the relevance of hermeneutics to economics.

Before turning to the major item in dispute, I hope I do not again arouse perplexity in Professor Madison if I object to his phrase "idle entertainment value." Certainly it is very far from my view that if a style of philosophy is unrelated to economics, it is for that reason lacking in seriousness or value. Whether Madison has me in mind here I am unable to determine; but one would like to know who among the "vociferous critics" has taken this position.

But this is by the way. The major hermeneutic philosophers have endeavored to show that understanding arises from a given context that to a large extent is practical in nature and not verbally articulated. Science, in their view, is not an absolutely true system that stands in sovereign independence above all else. It emerges from the world into which we are "thrown," as Heidegger puts the matter.

If one finds this position illuminating, fine. But it does not rule out or even throw into question any scientific discipline or technological process. It does subject to challenge certain philosophical interpretations of science, but it leaves the sciences strictly alone.[22]

An economist can be as completely "scientistic" as he pleases and remain a good hermeneuticist. Madison, on the contrary, contends that "while hermeneutics does not . . . mandate a method or set of methods for any discipline, it

nonetheless does have something important to say on the issue of methodology."[23] If "we hold that the proper object of economics is human *subjects*, a hermeneutic approach ought to be pursued and a scientistic one dismissed." The "hermeneutical critique of objectivism," if taken to heart by economists, will free the discipline "to become what it ought to be if it is to be genuinely *human science*."[24]

Here one must ask: *why* should economics be a discipline that endeavors to understand human beings? Hermeneutic philosophy neither requires nor suggests this, any more than it tells psychologists or biologists what to do. If "human science" entails the use of hermeneutics, all Madison is saying is that if one postulates that economics is a hermeneutic discipline, then it will turn out to be one. If, however, one claims that since Austrian economics does view economics as a "human science," it can benefit from attention to hermeneutics, I have no a priori objection. "The proof of the pudding is in the eating"; and if a hermeneutic economics is in the offing, let us see it. I do venture one prediction: we have a long wait in store for us.

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[1] Gary B. Madison, "Hermeneutical Integrity: A Guide for the Perplexed," *Market Process* 6, no. 1 (Spring 1988): 2–8.

[2] Ibid., p. 4.

[3] Ibid., p. 1.

[4] Ibid.

[5] Ibid., 7.

[6] Gary B. Madison, *Understanding: A Phenomenological-Pragmatic Analysis* (Westport, Conn.: Greenwood Press, 1982).

[7] Madison, "Hermeneutical Integrity," p. 1.

[8] Madison's political views are set forward in his *The Logic of Liberty*. Incidentally, if Madison examines my forthcoming review of this book in the *International Philosophical Quarterly*, he will find the claim that I am biased against him hard to maintain.

[9] Ibid., p. 4.

[10] Ibid., p. 4.

[11] Madison, *Understanding*, p. 9.

[12] Ibid., p. 12.

[13] Ibid., pp. 88–89.

[14] Ibid., pp. 99–100.

[15] Ibid., p. 277.

[16] Ibid., pp. 278–79.

[17] Ibid., p. 284.

[18] Ibid.

[19] See for example, ibid., pp. 20 and 115.

[20] David Gordon, “Hermeneutics versus Austrian Economics” (Occasional Paper; Auburn, Ala.: The Ludwig von Mises Institute, 1986).

[21] Ibid., p. 6.

[22] An excellent article showing the irrelevance of hermeneutics to social science is Mark Okrent, “Hermeneutics, Transcendental Philosophy and Social Science,” *Inquiry* 27 (March 1984): 23–50. Okrent, far from being prejudiced against hermeneutics, is a strong proponent of Heidegger’s philosophy.

[23] Gordon, “Hermeneutics versus Austrian Economics,” p. 6.

[24] Ibid., p. 6.

A Conflict of Visions: Ideological Origins of Political Struggles. By Thomas Sowell. New York: William Morrow, 1987.

Thomas Sowell has achieved an enviable reputation in many different areas of economics. His many works on the economics of immigration, culminating in *Ethnic America*, have won him an eminent place in this field. His *Knowledge and Decisions* applies in a comprehensive way the insights of Friedrich A. Hayek to a vast number of social phenomena. As if this were not enough, Sowell has also published widely in the history of economic thought.

It is with no little anticipation, then, that one turns to Sowell's venture into the history of ideas. Will the insight and imagination displayed in his previous work enable him to contribute a new way of looking at intellectual history? Admittedly, perusal of his *Marxism: Philosophy and Economics* dims one's enthusiasm. That book offered little but a tired rehash of elementary Marxist economics, presented as a major piece of scholarship.[1] Further, except for in the final chapter Sowell manifested a surprising sympathy for Marxism.

Sowell has made the work of analysis of his book as straightforward as possible, since he has carefully constructed it around a central thesis which the title adumbrates. What does Sowell mean by a vision? He informs us that "a vision is a sense of *causation*." It is more like a hunch or a "gut feeling" than it is like an exercise in logical or factual verification. "These things come later, and feed on the raw material provided by the vision" (p. 16). The "hunches" that Sowell concerns himself with do not primarily involve moral judgments. "People with the same moral values readily reach different political conclusions. . . . Labeling beliefs 'value premises' can readily become one more means by which conclusions insulate themselves from confrontation with evidence or logic" (p. 217).

Before plunging into Sowell's distinction between "constrained" and "unconstrained" visions, the principal subject of the book, a pause over "vision" seems necessary. Sowell may mean by this an innocuous truism: theorists rarely arrive at a total system at once but rather extend and shape an initial conjecture as evidence turns up and as consequences of their initial insight occur to them. Even interpreted this way, Sowell's explanation of "vision" can be challenged, as he seems later in the book to rule out, without consideration, the development of a

theory by a priori reasoning, in the style of Mises's praxeology, instead of by empirical testing.

But this issue hardly concerns him, and it would be wrong to read too much into his brief remarks about method. The controversial part of his remarks arises from the fact that, as the citation above shows, he almost certainly intends more by the use of "vision" than the commonplace that theorists begin from conjectures. He offers no evidence whatever that any theorist has in fact begun from a "gut feeling" about social causation. He also gives no support for his view that moral judgments are not part of the visions from which theories start.

To avert misunderstanding, I do not claim that it is false that theories stem from visions of Sowell's sort. He may well be right; as guesses go, his seems better than many. But this is just the point. In the absence of evidence as to how particular thinkers have arrived at their theories, Sowell's "visions" are just a shot in the dark. Even if one finds the two types of visions into which Sowell divides theories of society to be a dichotomy of surpassing excellence, this would in itself indicate a fact about theories that already exist. To say that theories can be grouped in a certain way tells us nothing about how the theories came into existence.

Another instance of Sowell's penchant for confusing conjecture with historical fact occurs, ironically enough, in a section of Chapter 9 entitled "Paradigms and Evidence." To illustrate the danger that one's vision may lead to refusal to acknowledge evidence that falsifies a theory, Sowell instances the case of the British psychologist Cyril Burt. Since Burt's death, examination of his use of statistics in his studies of mental ability has strongly suggested that he "faked" some of the data.

Concerning Burt's misuse of data, Sowell remarks: "The issue here is not heredity versus environment but evidence versus visions. Clearly, Burtt [sic] had little to gain personally from falsifying the data. In fact, he had much to lose, including a reputation and a painful setback for the cause he espoused. That he would risk such a gamble is one measure of his commitment to his vision . . . Sir Cyril Burtt [sic] thus represented one extreme in the relationship of evidence to visions—the total subordination of evidence to conclusions based on a vision or the theories derived from it" (pp. 207–08).

Sowell's conjecture about the reasons for Burt's misuse of data may be correct. But Sowell offers no evidence whatever on the matter. Has Sowell done any research on Burt? Has he as much as opened any biographical studies of Burt? Has he

considered other hypotheses, e.g., "kinks" in Burt's personality? Somehow Sowell just *knows* what happened. Incidentally, Sowell states that eventually, even Burt's supporter Arthur Jensen had to admit that Burt's statistics were unacceptable. In point of fact, Jensen was one of the first to call attention to the difficulty. But perhaps Sowell's vision has transmitted Jensen's thoughts to him as well as Burt's.

Sowell's reason for excluding moral judgments from his visions seems unconvincing. Granted that there are "visions," will not their contents depend very much on the idiosyncracies of individual theorists? Why should one exclude someone's development of a theory because of a "gut feeling" about morality? No doubt Sowell is right that people with different moral views often have similar policy conclusions. But is this always the case? People who believe that certain ethnic groups ought to be killed sometimes have quite different policy conclusions from those who do not share this position.

Suppose, however, that people's moral views *never* determine their policy conclusions. It still does not follow that moral judgments cannot form part of the initial vision from which a theory begins. Perhaps, on the implausible assumption stated, moral judgments "drop out" at some point. This once more appears entirely a question of "what makes people tick."

Regardless of whether anyone has ever had a close encounter of the Sowell kind, his visions can, as suggested earlier, be looked at as ways of classifying actually existing theories. Sowell contends that social theories fall into two main kinds: "constrained" and "unconstrained" visions.

One further preliminary matter needs to be addressed before we at last examine the visions. Sowell, in accord with his views about the limited role of value judgments in social science, maintains that his two visions are, as a matter of fact, a useful tool for analyzing social theories. His statement of the two visions does not express a value preference of his own; in particular, in his presentation he does not argue that the constrained vision is correct. Sowell has reacted with sharpness to reviewers who take him to be praising one vision while condemning the other, and his grievance has considerable merit. Examination of Sowell's other work will disclose without difficulty that Sowell is a prime instance of the constrained vision. But it hardly follows from this that his present book is a work of advocacy rather than neutral assessment. There is, however, excuse for the reviewers, as we shall later see.

What, then, are the two visions? Our author places prime emphasis on the attitude toward human nature characteristic of each one. The two visions differ mainly over what human beings can become, not what they now are like. “In the unconstrained vision, human nature is itself a variable and in fact the central variable to be changed” (p. 87). People may *now* be as selfish and shortsighted as you please; but given the “right” conditions, usually involving direction by an elite, a veritable metamorphosis will occur. Persons will now work happily together in harmony: all *will be* for the best in this best of all possible worlds. A change in human nature, one assumes, means that human beings will acquire traits they do not now have. Unfortunately, Sowell does not offer a definition of “human nature.” The problems this omission generates will be discussed below.

The constrained vision looks at human beings as basically unalterable in their nature. Adam Smith, a key exponent of this outlook, believed that “moral or socially beneficial behavior could be evoked from man only by incentives . . .” (p. 23). Rather than a futile attempt to make people “better” than nature has designed them, one can accomplish more by acknowledging the limits within which people function.

Together with contrasting approaches to human nature goes differing concepts of reason. For the unconstrained vision, reason is a direct and explicit matter. If one desires social change, the agenda is clear: one must devise a suitable plan, and carry it out. Explicit principles are the order of the day, rather than reliance on custom. If the usual way of doing things fails at the bar of reason, away with it.

The proponent of constraint rejects this fast and furious policy. He does not deny the value of what Sowell terms “articulate reason” when social conditions allow exactly formulated measures. But much of the operation of society takes place by means of customary rules that cannot be fully specified. Too much information exists for any person or group to have at their conscious command. Instead, one needs to rely on “the unintended consequences of human action” which will succeed in generating an order beyond the capacity of anyone to grasp in comprehensive fashion. The free market stands as the foremost example of a “spontaneous order.” The task of the government, in this view, lies rather in providing a general framework of rules which permits unplanned social institutions to function than in enacting plans of its own.

The position just sketched will be familiar to anyone who has encountered the works of Friedrich Hayek; and the frequent references the book contains to him lead one strongly to suspect that Hayek is the principal model of the person of constrained vision. Since Sowell's main work of theory, *Knowledge and Decisions*, sedulously follows in Hayek's footsteps, perhaps our author should not protest too loudly when reviewers of *A Conflict of Visions* ascribe to him the identical constrained view he has elsewhere explicitly taken over as his own.

Again following Hayek, Sowell maintains that the constrained vision offers little scope for the application of moral theory. It displays but slight concern for moral rights when these do not operate for the general benefit. People cannot "stand on their rights" if doing so proves overly inconvenient to society. Law concerns itself with what works best in general and often cannot be fine tuned to handle claims that particular persons have been unjustly treated. "This is a *process* conception of rights —the legal ability of people to carry on certain processes without regard to the desirability of the particular results . . ." (pp. 185–86).

In brief, the constrained vision stresses the "primacy of social interests over those of the individual . . ." (p. 187). By contrast, unconstrained visionaries place much more emphasis on what is right, apart from its social consequences. To a holder of this view, e.g., someone does not lose his right to free speech even if his exercise of that right is liable to foment disorder. Rights arise not from their usefulness as a tool to oil the social mechanism; they are owed to their possessors. It is morally wrong to refuse them their due recognition. Similarly, if an unconstrained visionary thinks that the poor ought to receive welfare, he will tend to regard this as a matter of justice. Like John Rawls, he will endorse a moral theory obligating people to transfer income to the needy. The person of constraint will tend to eschew altogether arguments based purely on moral theory. In his view, the working of society allows no room for these speculative ventures to operate. This attitude receives its clearest encapsulation in the title of the second volume of Hayek's *Law, Legislation, and Liberty: The Mirage of Social Justice*.

To reiterate an earlier point, the differing importance each vision accords to moral theory does *not* indicate conflicting value judgments. Quite the contrary, the advocate of constrained vision shares the same desires to aid the needy of his more freewheeling opposite number. It is not that he is an Ebenezer Scrooge

disdaining any concern for the unfortunate. Rather, he believes that the spontaneous order of the market best helps the poor. The concept of "social justice" leads exactly to the abstract rationalism he wishes to confine within rigid limits.

Sowell includes substantially more in the book, including an application of his social visions to various policy issues and a discussion of evidence. But what has been said so far gives enough of a basis for an analysis of his thesis.

The difficulties begin with the first of the characteristics of the visions, i.e., each one's attitude toward human nature. Many people have thought that changes in institutions can produce radical changes in people's behavior, but it is not clear that this involves belief in a change in human nature. Instead, it may be that the same human nature is held to be capable of quite different forms of life under various conditions.

If, like Shelley, one believes that "Power, like a desolating pestilence, pollutes whate'er it touches; / And obedience, bane of all freedom, virtue, justice, truth, / Makes slaves of men; / And of the human frame, a mechanized automaton," one may think that the abolition of government will have beneficial effects. But these need not come about through changes in human nature: philosophical anarchism of Shelley's kind may be based on liberating potential held already present in human beings.

I do not argue that Sowell incorrectly attributes to anyone in particular a belief that human nature is alterable. Rather, he fails altogether to draw the distinction just mentioned, making his analysis of the unconstrained visionaries difficult to assess. Even if one takes William Godwin, the ubiquitous example Sowell offers of someone whose vision was stratospherically unconstrained, one still wishes to ask: did Godwin think that the abolition of government and of false doctrines of morality would change human nature? It is not clear that he did. In a passage that Sowell cites, Godwin advocates attempting to appeal to "the generous and magnanimous sentiments of our natures" (pp. 2–5, quoting Godwin, *Enquiry Concerning Political Justice*). This hardly supports the view that Godwin wished to alter human nature. Here he seems to be saying that treatment of a certain kind will elicit a response from traits already present.

Admittedly, some passages in Godwin require considerable straining if one denies that Godwin did indeed contemplate a change in human nature. When, for example, he speculates that the future may bring an end to death, one can but gape in astonishment. But, once more, the point at issue is not whether

Sowell has rightly or wrongly appraised Godwin; it is that he does not distinguish changes in human nature from changes in the environment which manifest traits that people have now. For a change in human nature, certain traits *not* currently present would have to emerge.

In defense of Sowell, it might be argued that we have been making too heavy weather of a distinction of minor importance. Is not the vital core of Sowell's argument that some theorists believe that people will always be largely self interested, with at most a tincture of altruism; while others think that in changed circumstances people can become devoted to one another's welfare? As Marx put the latter viewpoint, in a "higher stage" of socialism, "the free development of each will be the condition for the free development of all."

Here, as it seems to me, the suggested difference does not do quite the job Sowell has in mind for it. Presumably, the difference between what the two visions expect from human beings is supposed to emerge in action. The day when "the secrets of all hearts shall be revealed" does not, after all, belong to *human* history. If behavior, then, is the visible manifestation of what traits people have, does not the distinction Sowell has in mind reduce to one between those who expect different conditions to bring about substantial changes in human action and those who deny this?

The difficulty for Sowell, if he accepts this reconstruction of his distinction, is that many advocates of the constrained vision come down on the wrong side. Persons who criticize unconstrained visionaries usually think that their radical plans for a new social order will worsen things. If, instead, one supports institutions that accord with human nature as it actually is, they think that much better results will ensue. If, e.g., one relies on the market to channel self-interested businessmen to fulfill the preferences of consumers, success appears far more likely than if one attempts a Procrustean policy of remolding people. No doubt; but looked at from an external point of view, *both* "constrained" and "unconstrained" visionaries believe that institutional change will make a vast difference to the sort of behavior prevalent in society. Once one puts some pressure on the idea of a change in human nature, the difference between the visions, as Sowell presents them, seems entirely a matter of varying approaches to policy and morality. The alleged difference in views on human nature "does no work"; it adds nothing to the visions.

Sowell might try to escape this argument by strengthening the view of human nature characteristic of the constrained vision. On the revised view, "constraint" would *really* mean constraint. A proponent of this version of the position would claim that little or no change in the condition of society is possible, regardless of what people do. We are just "stuck with" human beings as they are and that is that. A new problem arises here, however. On what grounds can the policies of the unconstrained vision be opposed? True, they will leave human nature as it is, but so will everything else. Why is any policy better or worse than another, if none affects the way people act?

Perhaps Sowell's best chance for escape is to attribute to the constrained vision the view that things can get worse than they now are but not much better. This gives both a reason to oppose certain measures—they will cause harm—yet at the same time the "not much better" provision distinguishes the position from its rival vision. The obvious difficulty here is that of the baseline. Worse or better than what? The economic system now prevalent in the United States? But do not those who fall within the constrained camp often think that some economic changes produce a great improvement? Hayek himself hardly takes the line, "Capitalism is the best we can hope for, and it is not very good."

Sowell's analysis of reason also gets him into some dubious areas. As he presents matters, advocates of the constrained point of view favor the market system. Those in the enemy camp find the market's reliance on inarticulate reason uncongenial. Favoring explicit planning as they do, they naturally incline to support central direction. Here Sowell's portrayal fits perfectly, if his aim is to sum up in brief the essential doctrines professed by F. A. Hayek. If, as seems apparently the case, he has a more ambitious goal and wishes to characterize major approaches to society in a way that "cuts at the joints," the analysis Sowell offers is more open to objection. Many free market advocates think that people can consciously decide to establish a market society. Although of course the market itself operates without central planning, it by no means follows that establishing a market order requires that one rely on a supposed "inarticulate reason." To think otherwise is to adopt a too exclusively Hayekian outlook. Ludwig von Mises, Hayek's teacher, was much more "rationalistic" than Hayek. Yet, contrary to what Sowell's classification system would lead one to expect, Mises more strongly supported reliance on the market than Hayek does. The

nineteenth-century Continental liberals, whom Hayek spurns as overly rationalistic, again were firm defenders of the market—the prime example, in Sowell's opinion, of a constrained social policy. To avert a possible misunderstanding, Sowell does *not* say that all on the constrained vision team must support the free market. Marx, whose vision Sowell thinks was in good part constrained, of course did not. Nevertheless, the free market is supposed to be a prime instance of a social institution that operates by inarticulate reason. As such, it fits into the constrained model.

In brief, my criticism is that both constrained and unconstrained figures have defended an institution Sowell thinks a criterion for one (but not the other) of the visions. Another criticism arises when one looks at a different connection, that supposedly present between emphasis on process and a pessimistic view of human beings. Thomas Hobbes certainly qualifies as taking a low view of human nature: to him, the dominant passion controlling human beings was the fear of violent death. Much controversial ink has been spilled over the issue of whether he was a psychological egoist; but even if he was not, there is little place in his system for actions done out of regard for others. Nevertheless, Hobbes's account of the origins of the state falls squarely within the "constructivist rationalist" camp. Thus, a strong "constrained" position on one issue combines with an equally powerful "unconstrained" account of another.

Many of the nineteenth-century classical liberals painted glowing pictures of the future of society that placed them outside the bounds of the constrained. But just what in their opinion would lead to such happy results was complete reliance on the market mechanism. Their adherence to a constrained theory of how society works led them directly to an unconstrained picture of human potential. Had Sowell examined the *Economic Harmonies* of Bastiat, instead of concentrating with such singleminded attention on William Godwin, his visions might have had quite other contents.

The examples just given cannot be dismissed as aberrations. What is supposed to be the logical connection between a pessimistic view of human beings and a reliance on process as opposed to "articulate reason?" The two areas appear entirely distinct. Someone with a pessimistic position, e.g., will not think that people can achieve very much of value; but this does not tell us the role he accords to articulate reason. Similarly, an optimist

will adopt a roseate view of whatever he thinks the best method of running society.

Perhaps the relation between the two areas is supposed to be this. If someone takes a "low" view of human beings, he will not rate highly their reasoning ability. Thus, he will fear to place much confidence in planning and will think reliance on custom and institutions which have arisen through evolution to be essential. Further, he will be very dubious of the *bona fides* of social reformers who promise wonders if power is handed to them. His suspicions will extend to self-anointed Platonic guardians as well. A pessimist will indeed be skeptical about abstract reason and its acolytes, but the conclusion that he will seek refuge in "inarticulate reason" does not follow. He may think that owing to the defects of human beings, however bad the results of planning, this is still "the best we've got." Once more, one's assessment of the best method of dealing with social problems is distinct from how much success one thinks it possible for human beings to attain. (For the past few paragraphs, I have put to one side the criticisms advanced against Sowell's account of human nature and assumed that we know in a rough-and-ready way what he has in mind.)

Although I have directed some criticism toward Sowell's account of the constrained attitude to reason, his presentation of the way the market works has considerable importance. Many social theorists ignore the "economic point of view." They fail to realize that the choice of one goal entails costs elsewhere and that not all "good things" can be achieved at once. Sowell's brief presentation of the free market may give some of them pause, should they chance to come upon it.

Our evaluation of Sowell's remarks on morality must be much more "constrained" in its enthusiasm. Sowell deprecates the importance of "value preferences": as he sees it, people have quite similar preferences but differ sharply on the best means to achieve their goals.

Sowell radically underestimates the significance of differences in moral outlook. Some people, e.g., presented with the elementary argument that shows why minimum wages will result in unemployment, will continue to support this measure. Unemployment of some may help particular groups to raise their income, and these latter may not care about the ill effects on others.

Nor are cases of conflict restricted to clashes between morality and "selfishness." Ronald Dworkin, a leading political

and legal philosopher, favors egalitarianism even though it may involve some degree of lessened economic efficiency. To a large extent, Dworkin would concede to Sowell the importance of the market. He would demur from the "constrained vision" view that since "everyone" wants prosperity, considerations of justice must "get out of the way" if they interfere with the processes by which society operates.

Although Dworkin's substantive account of justice seems to me wrong, his view that morality is relevant to social theory makes much more sense than the view Sowell attributes to the constrained visionaries.

It may well be true that most people want an efficient economy, but it is a far cry from this to thinking that morality has nothing to do with the market. For one thing, how can one acceptably delimit the property rights people possess without reference to rights? The constrained visionary, as Sowell presents him, would no doubt reply that people should simply accept whatever system of property evolution has been served up to them. But why should they? Their doing so surely is not needed for the working of the market, since the market can operate with any generally acceptable scheme of rights. Why then need anyone who acknowledges the importance of the market avoid the notion of justice? Of course, some theories of justice are inimical to the market order, such as Rawls's system as usually interpreted. But even the constrained visionary and his ventriloquist Sowell should be aware that other moral theories support the free market. What is wrong with libertarian natural rights?

The argument is not altered if one takes account of Hume's point that since any private property system is better than none, people ought to avoid changing a conventionally established system lest they bring about disorder. The effects of particular changes are an empirical matter: will *any* alteration of what exists upset everything? How much disorder one is willing to tolerate, if necessary, to institute a morally appropriate system seems a matter for discussion, not one to be settled by reference to a spurious dichotomy of types of vision.

Once more, then, the items in Sowell's visions manifest no coherence. Someone who favors the free market need not adopt the moral skepticism that Sowell thinks appropriate to someone of constrained vision. Unless, like Sowell and his mentor Hayek, one is already a moral skeptic, one will not at all find that the operation of the market makes nugatory appeals to moral theory.

Even if one thinks that social reason is largely inarticulate, moral theory can still remain. Why cannot a moral theory operate by inarticulate means? (I do not myself favor this approach but wish only to appoint that Sowell's presentation of inarticulate reason leaves it open to acceptance.)

A defender of Sowell might contend that we have misunderstood the point of his visions. He need not be taken as claiming that the various points of each vision are logically connected. Rather, the visions are a useful tool in looking at intellectual history: many thinkers can in fact be grouped in the way Sowell has set forward. Nor is the value of the scheme much affected by the fact that some thinkers—Sowell instances Karl Marx and John Stuart Mill—do not fall completely within either of the categories. No system of classification is perfect.

It seems to me wrong to say that Sowell thinks it a pure matter of fact that the elements of each vision go together, just as it happens to be the case that no state of the United States has the letter "Q" in its name. On the contrary, Sowell thinks that the positions included in his visions *do* fit together, and it is this claim I have been principally concerned to challenge.

Considered just as a method of classification, little can be said apart from a detailed consideration of its application to particular theorists. One more general problem with the scheme, however, is that few important writers seem to fit comfortably within the unconstrained camp. Sowell continually has to discuss Godwin—an underestimated but not *that* significant a figure—in order to have a case of someone who fits this side of his system.

Sowell's unconstrained vision accurately characterizes a number of twentieth-century "leftists" whom he mentions, such as Gunnar Myrdal. But apart from passing mention of Condorcet, Fourier, Paine, etc., he does not discuss any supposedly unconstrained visionary who lived before the twentieth century except Godwin. The only major contemporary theorist he deals with in this group is John Rawls; and Sowell grievously misunderstands him. Sowell thinks that Rawls's theory of justice uses abstract principles to ride roughshod over the processes by which the market functions efficiently. Contrary to Sowell, Rawls's difference principle does make provision for economic efficiency, since inequalities that are to the benefit of the worst-off are allowed. Someone who agrees with Sowell that the free market works to the advantage of the poor need have no trouble with the difference principle. Rawls himself does not share this view of the free market, but this is a factual issue, not an issue of

the theory itself. Hayek thinks Rawls's theory largely compatible with his own views. Nothing in the preceding remarks is intended as an endorsement of Rawls's theory; but even a wrong theory does not justify the use of bad arguments to criticize it.

Further, if in fact the elements of Sowell's visions do not fit together logically, it may be that his system "works" only to the extent that it is parasitic on divisions of genuine intellectual importance. Two that come to mind are that between supporters and opponents of the free market and another between moral skeptics and "cognitivists." Also, though even a good classification will not fit everyone, even a useless scheme will fit *some* people.

Like all of Sowell's books, *A Conflict of Visions* is composed in a style that is easy to read, if at times boring in its unvarying and nondescript tone. Unlike much of his previous work, it is lacking in intellectual substance.

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[1] In support of my assessment, see the review by David Ramsay Steele in *International Philosophical Quarterly* 26, no. 2 (June 1986): 201–03.

A Farewell to Marx: *An Outline and Appraisal of His Theories*. By David Conway. New York: Penguin Books, 1987.

David Conway's book supplies what many have been seeking for a long time—a reliable introductory study of Marxism which can be recommended without reservation to students. But he has also accomplished more. Even experienced scholars will find his discussion insightful and original.

The author concentrates his discussion around one central question: on what grounds did Marx condemn capitalism and wish to replace it with socialism? Three issues come to the fore in Marx's response. First, Marx believed that capitalism causes alienation, a dire though nebulous state of affairs which socialism would overcome. Second, capitalism rests on exploitation of the working class. Third, capitalism, once a progressive system, now blocks the growth of the forces of production. Inevitable economic crises will replace it with socialism. In this system, central planning will enable production to increase to a vast extent.

Conway rejects all of these Marxist claims and in the course of his analysis of them gives a masterly conspectus of the entire Marxist system. To turn at once to the first issue on Conway's agenda, our author gives short shrift to "alienation," a much discussed word that has behind it little substance.

Marx believed that workers under capitalism lack autonomy, since they work for capitalist employers and do not decide for themselves what they wish to produce. Nor does the capitalist have in mind the development of the laborer's creative powers. On the contrary, capitalism rests upon the division of labor. The consequence of this method, in which tasks are split up into small, specialized operations, is that work often stultifies creativity.

Conway disposes of Marx's indictment quite easily. If workers want "creative" work, they are free to demand this, and whatever other conditions they wish, from their employers. Workers are also free under capitalism to establish firms under their own control: what could be more autonomous than this?

There is, however, one "catch." No guarantee exists that workers in "creative" conditions will be able to earn enough money to justify the greater production costs of these conditions. If workers do cover the increased costs, it is hardly likely that

their salaries will be as high as under capitalism.

For this the reason is evident. If creative, "non-alienated" conditions were more productive than those that at present exist, employers would rush to establish them. As Marx himself noted, capitalists aim constantly for profit and they are hardly likely to overlook a superior way of inducing more and better work.

The facts, unfortunately for Marx, are entirely otherwise. It is just the system of division of labor which he condemns, not his non-alienated utopia, that is most productive. If so, then a well-established economic theory tells us that wages will be higher here than under alternative methods of production. Labor receives the discounted marginal value of its product. Less technically, the wages of labor depends on what it produces. If, then, "better" working conditions reduce production, wages will also fall.

Much to the surprise of some Marxists, if no one else, workers usually prefer higher wages to the "creative" work others think best for them. If workers choose more pay over the alleged benefits of "non-alienated" work, is this not a supreme example of autonomy? By earning more money than otherwise possible, workers increase the goods and services available to them. Some workers are benighted enough to prefer watching baseball on television to spending time in socialist "re-education" camps.

But, the socialist will say, why choose between better working conditions and more goods and services? Under central planning, one can have both. A "higher" stage of socialism, at any rate, will in Marx's words make "the free development of each the condition for the free development of all."

Such promises have by now a hollow ring. No reason exists for thinking central planning will aid in overcoming alienation. As Conway notes: "Let us first consider the claim advanced by Marx that communism permits each individual to do what he likes, as he likes, when he likes during the period of work. This, surely, must be rejected as purest fantasy. Apart from anything else it seems totally incompatible with having a centrally planned economy. How could planners ensure that there would be enough people in each branch of industry at each moment of the working day should each individual have complete freedom to decide what he does during it?" (p. 47).

Further, a socialist economy of any complexity would not work at all. Here of course the calculation argument of Ludwig von Mises is decisive: without markets, a developed economy

will be unable to produce capital goods efficiently. Briefly put, Mises has removed socialism as a "live option."

I venture to suggest that Conway ought to have made more use of this decisive point. He does mention the calculation argument, which he terms "the argument from ignorance" (pp. 184–85). But he credits it to Friedrich A. Hayek, not Mises; and he thus does not state it in its strongest form.

Though Conway's treatment of alienation on the whole deserves high praise, the most outstanding part of the book is his section on exploitation under capitalism. As Conway notes, "exploitation" is a technical term in Marx's economics. Marx believes that workers sold their employers their labor power—their capacity to labor—while their wages were determined by the cost of the commodities workers required to subsist. More exactly, the "cost" of labor depends on what a particular society regards as an acceptable standard of life. As Conway notes, this need not be bare physical subsistence (p. 97). The gap that existed between labor power and the cost of labor explained the secret of capital. How, if a capitalist both bought and sold everything at its value, could he make a profit? Marx's account of labor provided his answer, and it is this very gap that constitutes exploitation.

If capitalism has a "secret," then as Conway shows, Marx's account leaves it a very well kept secret indeed. His explanation of profit relies on the labor theory of value. Conway, here following the classic treatment of Böhm-Bawerk, demolishes this theory quickly and effectively. It assumes that in an exchange, each commodity traded has an equal value with whatever in that exchange is given up for it. On this assumption, Marx inquires: what do all commodities have in common that enables us to determine the ratios at which commodities equal each other? He locates the answer in labor. Two commodities exchange in proportion to the average socially necessary labor time required to produce each one.

This account goes wrong from the start. An exchange is not an equality, far from it. Each person in an exchange prefers what he obtains to what he gives up: how could the trade otherwise voluntarily take place? An exchange is then a double inequality, not an equality. And on this sounder theory, one can readily build up a theory of value much superior to the Marxist account. Conway presents this competing view, the subjective or marginal utility theory of value, in a clear and simple way (pp. 98ff). And on this account, the worker is not "exploited."

Perhaps wisely, Conway passes by the complicated "transformation problem." This is Marx's convoluted attempt to square the circle—his attempt to show that his labor theory could explain why prices of production do not correspond to labor values. Böhm-Bawerk exploded for all time Marx's manifold fallacies here.

Instead, our author turns to ethics: does capitalism wrongfully exploit the worker? Here "exploit" is used not in its technical sense in Marxist economics, but in its ordinary language meaning. Incidentally, Marx's choice of the term "exploitation" has considerable rhetorical force. It would not follow, if his view of economics were right, that there is anything unsatisfactory in labor's receiving less than its capacity for labor enables it to produce. But the use of the word "exploitation" serves to make part of Marx's case for him. It is quite easy to forget Marx's technical meaning and slide over to the ordinary language use, in which exploitation by definition is objectionable.

But to return to Conway, on what grounds do Marxists claim workers are exploited? Much of their case rests on the false assumption that the capitalist is not doing anything. But surely providing capital is an essential task of production. Nor is Marx justified in ridiculing the theory that interest payments reward capitalists for abstinence. No doubt capitalists could not in all cases readily consume personally the wealth they now invest: but they need not invest anything. The fact that they do invest, then, does indicate a sacrifice of possible consumption (p. 112). Conway's case could have been made even more effectively had he explicitly brought in the Austrian view that interest payments reflect the rate of time preference.

Suppose one grants that Conway is right. Capitalists are not useless drones but exercise a productive function of vital significance. A socialist might attack on a different front: he might admit that capitalists are productive but deny that they have justly obtained their property.

To this Conway has a ready reply. He denies that it is unjust for individuals to hold land and other resources for productive purposes. Appropriating unowned land, e.g., need not prevent anyone else from access to the means he or she needs to have a fulfilling life. Hence morality imposes no bar against appropriation.

In this argument, Conway appeals to a principle of rights that strikes me as dubious. Following the philosopher Samuel

Scheffler, Conway states: “we shall construe every person as having a natural right to a sufficient share of every good capable of distribution whose enjoyment is a necessary condition of a person’s having a reasonable chance of living a decent and fulfilling life.” (pp. 117–18). (Conway holds that the right is subject to one qualification, but this does not affect our discussion.) As Conway interprets this principle, it allows property acquisition subject to something quite like the “Lockean proviso”: there must be “enough and as good” (p. 19) of whatever is appropriated left over for others.

I cannot think that the restrictions Conway’s principle impose on acquisition of property can be defended in the fashion our author sets forward. *Why* does everyone have so extensive a natural right as Scheffler’s principle mandates? Do persons physically unable to provide for themselves have a natural right that others provide them with medicine and nursing care? Are those with high standards of living obligated to devote large shares of their resources to aiding the destitute in Ethiopia and Bangladesh? Though I cannot argue the point here, I think that the straight-forward Rothbardian variant of Lockean rights avoids these and other problems.

But even if Conway’s view of rights is wrong, his adoption of it serves a useful purpose in the case against Marxism. If even his overly permissive view of rights allows property rights, how much more can they be supported on a more restricted view of the goods and services people are entitled to claim from others?

One escape remains to the Marxist. He may hold that, whether or not there is in principle an objection on moral grounds to private property, in practice the question admits of but one response. In actually existing capitalism, wealth was mainly acquired through plunder of colonies and the use of slave labor.

This Conway denies. He claims that “landed and colonial wealth played virtually no part in financing the first capitalist industrial ventures.” In fact, capital expanded through exactly the account Marx ridiculed; businessmen in the Industrial Revolution tended to “plough back” nearly all their profits in further investment (p. 111. Conway’s sources are works of R. Cameron and F. Crouzet, as cited at pp. 214–15.)

Capitalism, Conway has abundantly shown, stands acquitted of the charge of exploitation. But what of the Marxist claim that the capitalist system leads inevitably to crisis and collapse? Here, space compels me to be brief. Suffice it to say that this claim too

stands bereft of support.

Marx's theory of capitalist development has both a general basis in the "laws" of history and includes specific means by which capitalism fulfills these supposed laws of history. The first of these depends on the view that productive forces—roughly the technology and methods of production that exist at a time—tend continually to grow. The economic system that exists at a particular stage of history is the one that best enables the forces of production to grow. When the system reaches the limits of the growth of capital within it, a new system will replace it. Conway notes that Marx's explanation of the economic system is a functional one. That is, he explains the economic system by its role in promoting the growth of the forces of production.

But this sort of explanation is at best incomplete. The growth of the forces of production does not precede the system whose existence it is supposed to explain. How then is it supposed to explain it? Granted the "function" of the system, some causal account is needed to explain how the economic system exists. Otherwise, our causal explanation will go in the wrong direction—the (later) production forces will "cause" the (earlier) system that enables them to develop. In a detailed discussion, Conway maintains that G. A. Cohen, the leading supporter of this sort of functional account, has not filled his analysis out in an acceptable way (pp. 73–75).

There is a further point that to my mind invalidates the Marxist theory. Why should we assume that *each* new economic system is the one that will allow the maximum development of the productive forces possible at a particular time in history? Isn't it the case, e.g., that capitalism would have been a more productive economic system than feudalism? (I cannot think acceptable the contention of Douglas North that feudalism is a type of capitalism. But if one thinks there is "something to" this, rephrase the point: isn't a capitalist system that need not be bound by feudal restrictions always more productive than one that is thus restricted?)

Conway shows very well that Marx's specific mechanisms designed to explain the collapse of capitalism fail of their purpose. Marx's account here relies on the theory that the rate of profit tends under capitalism to fall: his argument for this is a tissue of error (pp. 113–39). As Conway notes, on the best account of the business cycle, that of Ludwig von Mises, depression is not intrinsic to capitalism. It results from the collapse of overinvestment due to government-induced expansion

of bank credit. Depression is a problem not of the free market, but of governmental interference with it (pp. 140–41).

I have so far been in entire accord with the main lines of Conway's presentation. But I fear I must part company with him in his fifth chapter, "Politics." Here he argues that Marx favored democracy: unlike Lenin and his successors, Marx did not favor the suppression of workers and their subjection to the minority dictatorship of a "vanguard" party. Conway fully and fairly presents the evidence against his view (pp. 148ff); he nevertheless holds that even such phrases as the "dictatorship of the proletariat" are not what they seem. He interprets Marx's advocacy of dictatorship in a way that leaves him still a democrat.

It seems to me that Conway has here fallen into a trap. No doubt Marx did support certain freedoms for "workers." But the proletariat hardly subsumes everyone within society: and there is no evidence that Marx thought of extending "democratic" freedoms to non-proletarian opponents of socialism.

Further, even if one confines the discussion to workers, one needs to distinguish, in a way that Conway fails to do, between democracy and civil liberties. The fact that Marx wished workers to take an active role in government hardly shows that he wished to extend civil liberties to workers who opposed socialism. Would he not more likely have regarded them as "class traitors" to be dealt with ruthlessly?

Conway's last full chapter, "Theory or Ideology," is strikingly original. He denies that Marx has made a case for his claim that morality reflects class interests. What exactly is the argument that moral judgments are not objectively true? Marx offers none—he simply dismisses morality with a wave of the hand.

Conway's case so far, while perfectly in order, follows standard lines. His originality emerges in his treatment of the related Marxist claim that religion is ideological. Here he counters by presenting with apparent approval Schopenhauer's assertion that some religions—Christianity, Brahmanism, and Buddhism—allegorically present the truth of the human condition. The truth in question is that of the futility of life and the need for a release from the domination of the will. Many will find this more than a little *outré*. A less radical response to Marx might content itself with noting that specific religious claims need to be discussed rather than dismissed *en bloc*. But like all of Conway's book, his view is clearly presented and provocative.

I do not think anyone can finish Conway's excellent book without learning a great deal about both Marxism and effective philosophical argument.

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The International Political Economy of Coffee: From Juan Valdez to Yank's Diner. By Richard L. Lucier. New York: Praeger Publishers, 1988.

Coffee is of global importance, ranking second to petroleum in world commodity trade. Moreover, coffee is of particular importance as a major export commodity in many low-income countries in Latin America, Africa, and Asia. The primary purpose of *The International Political Economy of Coffee* is to integrate political science and economics in analyzing the five-fold increase in world coffee prices over an 18-month period in the mid-1970s. The effects of this price increase, resulting from a frost in Brazil in 1975, are traced from Yank's Diner in Scranton, Pennsylvania through the world coffee market (and the international coffee agreements) to several countries in which coffee is the major export and a prime determinant of the level of economic activity.[1] The effects of higher coffee prices on individual consumers in the United States and on coffee producers in Brazil, Columbia, and the Ivory Coast are analyzed. The individual coffee producer in Columbia is personified by "Juan Valdez," the Columbian coffee industry's fictional TV advertising spokesman. A stated concern of the book is to show how Juan Valdez and Yank's Diner are mutually dependent upon each other.

The book is divided into seven chapters. Chapter 1 describes the consumer outcry against higher coffee prices in the United States following the Brazilian frost, the resulting U.S. Congressional hearings, and General Accounting Office study of the world coffee system. The impact of this economic shock in the United States coffee market is the starting point of the inquiry into economic interdependence between countries producing coffee and countries consuming coffee. Chapter 3 describes the world coffee market, emphasizing the role of Brazil as a "dominant oligopolist" in coffee production. Coffee production and trade is considered in a broader political-economic context of economic growth and development of "Third World" countries.[2] Chapter 4 describes the history of the international coffee agreements. The issues raised in these agreements between countries producing and consuming coffee were the subject of negotiations in the call by less-developed countries for a New International Economic Order (NIEO) during the 1970s. Chapters 5 and 6 focus on the role of coffee in

economic development in Columbia and the Ivory Coast. The political economy of coffee in the 1980s is considered in the final chapter of the book, including a brief analysis of the effects of a Brazilian drought in late 1985.

This book presents a wealth of data about the international coffee industry. Trends in production and use of coffee, supply and demand, prices, exports and imports by various countries, the growth in production and consumption of soluble relative to roast coffee, market shares of leading firms in the coffee industry, and other aspects of coffee trade are clearly described and well documented. Thus, this book is a good data source about the world coffee market. Moreover, it clearly traces through the effects of the 1975 Brazilian frost on coffee consumers and producers. So long as the book is used as a source of data about the world coffee market, there is little room for criticism.

However, the book is not merely about the coffee industry. The broader objective is to analyze the relationship between coffee production and economic development in less developed countries. In doing so, the author focuses on "the highly charged issues of dependency, national sovereignty, and the forces that shape developing countries' political economies" (p. 19).

Lucier's aim is to integrate political science and economics into a single work on economic development by focusing on power relationships. He concludes, and properly so, that it is central to political-economic analysis that both power and markets be understood. However, the author fails to properly distinguish between power and market relationships.[3] Market transactions are based on consensus whereas the governmental decision-making process inevitably involves power and coercion. A finding of "market failure" based on an oligopolistic view of coffee production leads the author to favor cartelistic solutions enacted and enforced through international agreements in regulating the production and consumption of coffee throughout the world.

International Coffee Agreements

Coffee was one of the first commodities in which control over world trade was attempted. Brazil, producing from 75 to 90 percent of the world's coffee in the early 1900s, led Columbia and other Latin American countries to a series of producer-country agreements to control exports and raise world prices

from 1902 until the first International Coffee Agreement was signed in 1962. This agreement represented a major change in the world coffee market since major coffee importing countries (including the United States) also became signatories. The 1962 Agreement, ending in 1968, was followed by similar international coffee agreements in 1968, 1976, and 1983. The agreements, based on a system of country-by-country export quotas, restrict marketing and raise coffee prices.[4] As one might expect, however, the effectiveness of the cartels was eroded by competition as exporters shipped through third countries to cheat on the agreement.

Lucier is a firm proponent of international coffee agreements contending that free trade is a myth and that the real choice is between commodity agreements (including consumers as well as producers) and oligopolistic arrangements between producers only (pp. 163–65). Thus, the agreements, in his view, merely reflect the reality that governments are heavily involved in coffee markets in producing countries and coffee trade in highly developed countries is heavily concentrated in a few transnational firms. Further, Lucier argues that the agreements have been broadly beneficial because they both slowed the shift in production from low- to high cost producers and controlled production to balance world demand and supply. Lucier concludes that even coffee consuming countries benefit from these international agreements by having more leverage in marketing decisions. However, the latter conclusion is challenged by Law who found coffee prices under the agreements during the 1963–1972 period were *higher and less stable* than they had been in the preceding 10 years.[5]

The long term effects of commodity agreements are predictable from cartel theory. The post-World War II period has seen cartel-like international agreements in a number of other products including oil, wheat, and sugar. Despite the temporary success of the Organization of Petroleum Exporting Countries (OPEC) in restricting total sales, the effectiveness of cartels in raising prices is inevitably eroded over time.[6] There were some special factors contributing to OPEC's success in raising prices for a decade or so, but time has largely dissipated its power too. Thus, the typical results to be expected from restrictions on competition and higher prices arising from commodity agreements are: consumer resentment, a faster search for substitutes, cheating among signatories, an expansion of output outside the agreement, a constant struggle to keep total output or

trade down and individual nations' shares up, and retardation of needed resource and production adjustments.[7] The economic arguments against the various international coffee agreements and other commodity agreements are similar to those of other government cartels. Commodity agreements are more likely to inhibit productive resource allocation since quotas and prices are determined by political influence and past production and trading patterns rather than comparative advantage and market forces.[8] Similarly, Bauer finds that commodity agreements tend to freeze the pattern of production, protect high-cost producers and restrict the growth of lower-cost supplies.[9]

Cartel theory suggests that arbitrarily raising product price will spur the development of substitutes. Thus, it is not surprising that Brazilian and Columbian coffee has faced increased competition as more and more countries began to produce and export coffee. Whereas only 14 percent of the world's coffee was grown outside of Central and South America in the late 1940s, non-American, chiefly African, coffee production has increased rapidly since that time and now constitutes about one-third of total world exports.[10] There is little doubt, given the huge number of countries exporting coffee, that coffee consumers would be protected better by the market process than by world-wide cartel arrangements agreed upon by producing and consuming countries.[11]

Economic Development and the New International Economic Order

The United Nations Conference on Trade and Development (UNCTAD) was convened in Geneva in 1964. The "Third World" countries succeeded in drawing attention to their view that the system of international trade and investments was established by the industrial high-income North at the expense of the low income South.[12] The oil shock of the mid-1970s galvanized the UNCTAD movement into a demand for a "New International Economic Order."[13] This NIEO was to apply the OPEC cartelization approach to coffee and other primary products. One of the planks in the NIEO platform was to manipulate markets of primary products—as in international commodity agreements—so as to stabilize and raise commodity prices.[14]

Lucier appears sympathetic to the NIEO view that the system of international trade and finance benefits richer countries at less-developed countries expense. Two components of the NIEO

were (1) stable and higher product prices, and (2) increased access for "developing country" exports to "developed"-country markets (p. 103). Thus, the international coffee agreements foreshadowed the active stance exemplified in the NIEO and coincides with the first component of the NIEO agenda.

The above discussion suggests that the economic results of cartelization of coffee markets are similar to those for other commodities. International commodity agreements are generally sold as measures to stabilize markets. However, stabilization schemes for cocoa, coffee, tin, and other products face the formidable incentive and information problems of correctly guessing what the long-run price trend will be, mustering sufficient resources to keep the price near that trend, and following through with the appropriate actions. After reviewing the experience with such schemes, Lindert concludes that price stabilization is "plausible in principle but unworkable in practice."[15]

Market stabilization schemes are interesting intellectual exercises but of little practical significance. Even if government officials could obtain the information necessary to increase price stability, the incentives of the political process are such that they are unlikely to do so. In this respect, international commodity agreements are similar to domestic government programs to stabilize markets. Neither theory nor historical experience provide reason to think that the political process will succeed in stabilizing markets where private action fails to do so.[16] For example, the International Coffee Agreement of 1976, advertised as a stabilization device, failed to prevent two years of high prices following the Brazilian frost in 1975.[17] And, aside from the stabilization aspects of commodity agreements, there is no more justification for artificially raising prices through production and marketing controls (to assist producers) than there is for any other government redistribution program.[18]

The second component of the NIEO agenda, increased access (by more highly developed countries) for exports from less developed countries, warrants emphasis and support. The effort by Brazil in the late 1960s and mid-1970s to increase exports of soluble coffee to the United States, for example, was opposed by the National Coffee Association (the trade association representing United States coffee processors) and ultimately by the U.S. Congress (p. 142). This action is symptomatic of the schizophrenic nature of governmental policies in the United States and other economically advanced countries toward low

income countries. On the one hand, various governmental economic development initiatives are launched at taxpayer expense to assist less developed countries, such as the Alliance for Progress and the Caribbean Initiative by the United States. At the same time, however, economic development is impeded by restricting imports of sugar, coffee, and so on, from these countries. The most effective way rich countries can help poor countries is to reduce trade barriers against their exports.[19]

A thesis of Lucier's book is that "trade, focused on exports, is an undependable engine of growth and development" (p. 104). In this so-called classic dependence scenario, less developed countries are alleged to be dependent upon technically advanced countries as customers for their exports and as sources of the imports needed for economic growth and development. Furthermore, the development and wealth in the advanced countries and the lack of development and poverty in the poor countries are held to be a function of one another.[20] However, this dependency view has little relevance. When trade occurs, there is mutual dependence—interdependence—and all parties benefit from it. The fact that many less developed countries mainly export primary commodities in exchange for imports of manufacturing capital goods does not mean that such trade is harmful.

Development economists frequently assume that government planning is a central factor in economic development. In this view, there must be a "development policy" or "development strategy" with government activity regulating investment expenditure, imports and exports, and terms of trade. Lucier favors government planning in "developing countries" to direct investment and production and to protect "infant industries" from foreign competition as ways to promote economic and political development (pp. 97–98). However, there is a great deal of evidence that centralization and increased governmental power is "much more likely to obstruct economic progress than to advance it."[21]

Lucier draws a sharp distinction between economic growth and economic development. Economic growth is identified with increases in output and income while, economic development is a process of change: in the composition of output, in production processes, in the distribution of income, in the production and diffusion of knowledge, and in the sophistication and modernization of the entire social system and its institutions [p. 93].

In this view, economic growth occurs without economic development when the outcome is not consistent with the "development goals." In the Ivory Coast following independence in 1960, for example, a high rate of economic growth was achieved with the assistance of foreign investment from France and other developed countries—but (according to Lucier) little economic development. The major beneficiaries of the economic growth were foreign-owned firms, and the Ivorian population did not receive "its share of economic benefits" (p. 303).

The "terms-of-trade" are held to be of critical importance if "exports are concentrated on a few primary commodities" (p. 95). Bauer in sharp contrast, finds that the discussion about terms of trade of less developed countries is misleading or incorrect and that "terms of trade are, in fact, unrelated to the prime causes of poverty in the underdeveloped world."[22]

Much of the analysis in economic development involves a "nirvana approach"—comparing the present situation with an unattainable outcome.[23] In assessing the effects of trade, investment, and other factors contributing to the development of economic activity in any country, the relevant comparison is between the present situation and the condition that would exist in the absence of the factor(s) responsible for the change in economic conditions. For example, the fact that incomes in a poor country would be higher if a smaller proportion of the rewards were going to "foreign factors of production" (p. 303) or if terms of trade were more favorable are not relevant in assessing the effects of foreign investment, international trade, and so on.

In brief, Lucier's book is much more informative about the operation of the international coffee market than it is as a policy guide for ways to promote economic development in less developed countries. The objective of public policy should be to develop an institutional framework that provides maximum scope for individual choice. Only in this way can resources be used most effectively throughout the world and the interests of producers and consumers best be served. The recommended cartelization of the world coffee market in the form of international coffee agreements is not consistent with this objective.

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[1] The information in the book about Yank's Diner was taken from an article in the *Wall Street Journal*.

[2] The Third World concept was forged after World War II, largely under United Nations auspices. The unifying characteristic of the Third World is that its constituents receive aid from Western governments. In economic development literature, the Third World was previously known as the underdeveloped world, the less-developed world, and now is often referred to as the South. See Peter T. Bauer and Basil S. Yamey, "The Third World and the West: An Economic Perspective," chap. 6 in *The Third World: Premises of U.S. Policy*, W. Scott Thompson, ed. (San Francisco: Institute for Contemporary Studies, 1978), pp. 118–20.

[3] Murray N. Rothbard, *Man, Economy, and State* (Los Angeles: Nash Publishing, 1970).

[4] A new coffee agreement is scheduled to begin October 1, 1989. In early 1989, the United States, objecting to inflexible quotas and sales to nations that are not members of the pact and at lower prices than members are required to pay, threatened not to join the agreement.

[5] Alton D. Law, *International Commodity Agreements* (Lexington, Mass.: D. C. Heath, 1975), p. 84.

[6] Peter H. Lindert, *International Economics*, 8th ed. (Homewood, Ill.: Irwin, 1986), p. 207.

[7] Alton D. Law, *International Commodity Agreements*, pp. 77–78.

[8] Ibid., p. 111.

[9] Peter T. Bauer, *Dissent on Development*, rev. ed. (Cambridge, Mass.: Harvard University Press, 1976), p. 263.

[10] U.S. Department of Agriculture, *Agricultural Statistics 1987* (Washington, D.C.: U.S. Department of Agriculture Printing Office, 1988), p. 238.

[11] Nappi finds that past coffee agreements have defended a price floor above the long-term market price, frozen the industry structure through the allotment of export quotas, and not provided a mechanism to encourage reduction of high cost production capacity. See Carmine Nappi, *Commodity Market Controls* (Lexington, Mass.: D. C. Heath, 1979), p. 76.

[12] Bauer points out that the term Third World reflects a condescending attitude because we normally do not talk about

the First or Second World. It is countries in Asia, Africa and Latin America that are lumped together by this term—as if they "were all much of a muchness." There is a great deal of ambiguity in distinctions made between developed and less developed countries but the term less developed is much less misleading than underdeveloped, developing, or Third World used as an adjective (Peter T. Bauer, *Dissent on Development*, p. 25).

[13] Peter H. Lindert, *International Economics*, p. 275.

[14] Ibid., p. 276.

[15] Ibid., p. 281.

[16] After more than 400 pages of formal analysis investigating the conditions under which government stabilization policies might be effective, Newbery and Stiglitz conclude: "In short . . . we believe that the gains to be had from a commodity price stabilization programme are likely to be small, and that most of the benefits in risk reduction may be had by improving the workings of the market, for example, by making futures markets more readily accessible (directly or indirectly) to small producers," (David M. G. Newbery and Joseph E. Stiglitz, *The Theory of Commodity Price Stabilization: A Study in the Economics of Risk* [New York: Oxford University Press, 1981], p. 445). The authors acknowledge that their formal analysis is oversimplified by assuming away the formidable "empirical" problems in obtaining the information required to design and implement a price stabilization program to cope with "market failure" that arises due to the lack of perfect information and appropriate insurance markets to deal with risk. However, they completely ignore the incentive problems that predictably result in "government failure" as well as the policy implications of that failure. Ibid., pp. 442–44.

[17] Bruce L. Gardner, *The Governing of Agriculture* (Lawrence, Kans.: The Regents Press of Kansas, 1981), p. 104.

[18] It is suggested by some people that the United States (and other industrial countries) should participate in international commodity agreements as a form of economic assistance to developing countries. However, no system of transferring income from the United States consumers of coffee and other products to foreign producers can be justified as increasing social utility. See David Osterfeld, "Social Utility and Government Transfers of Wealth: An Austrian Perspective," *The Review of Austrian Economics* 2 (1987): 79–99.

[19] Peter T. Bauer and Basil S. Yamey, "The Third World and the West," p. 115.

[20] Anthony S. Smith, “The Case of Dependency Theory,” chap. 11 in *The Third World: Premises of U. S. Policy*, p. 211.

[21] Bauer and Yamey, “The Third World and the West,” p. 84.

[22] Ibid., p. 258.

[23] Harold Demsetz, “Information and Efficiency: Another Viewpoint,” *Journal of Law and Economics* 12 (1969): 1–22.

Man, Economy, and Liberty: Essays in Honor of Murray N. Rothbard. Edited by Walter Block and Llewellyn H. Rockwell, Jr. Auburn, Alabama: The Ludwig von Mises Institute, 1988.

Man, Economy, and Liberty, which grew out of a conference celebrating Murray Rothbard's 60th birthday in 1986, is a collection of essays by 30 contributors—economists, philosophers, historians, political scientists, sociologists, and long-time friends and companions—honoring one of the world's foremost living champions of liberty.

Edited by Walter Block and Llewellyn H. Rockwell, Jr., *Man, Economy, and Liberty* amply and yet incompletely attests to Rothbard's productivity and his achievements. Author of 16 books and thousands of articles, scholarly and journalistic, ranging over the entire field of the humane studies, Rothbard ranks among the great social thinkers. A system-builder, he is the architect of a rigorously consistent social philosophy.

Economics and ethics are the cornerstones of the Rothbardian system, strictly separated, but firmly grounded in the nature of man, and complementing each other to form an integrated system of rationalist philosophy.

Economics, and here Rothbard follows Ludwig von Mises, sets out from the axiom that humans act, i.e., that they pursue their most highly valued goals with scarce means. Combined with a few empirical, and empirically testable assumptions (such as that labor implies disutility), all of economic theory can be logically deduced from this indisputable starting point, thus elevating its propositions to the status of apodictic, a priori true laws and establishing economics as a logic of action (praxeology). Modeled after Mises's *Human Action, Man, Economy, and State*, Rothbard's first *magnum opus*, completed while still in his mid-30s, develops the entire body of economic theory—from the law of marginal utility to the business cycle theory—along these lines, repairing in its course the few remaining inconsistencies in the Misesian system (such as his theory of monopoly prices and of governmental security production), and presenting, for the first time, a full case for a pure market economy as optimizing, always and necessarily so, social utility.

Ethics is the second pillar of the Rothbardian system. Contrary to the utilitarian Mises, who denies the possibility of a rational ethics, Rothbard recognizes the need for an ethic to complement a value-free economics so as to make the case for the free market truly water-tight. Drawing on the theory of natural rights, in particular the work of John Locke, and the genuine American tradition of anarchistic thought of Lysander Spooner and Benjamin Tucker, he provides also for its foundation with the principles of self-ownership and original appropriation of unowned resources through homesteading. Any other proposal, Rothbard shows, either does not qualify as a human ethic applicable to everyone qua human being; or is not viable in that following it would literally imply death while obviously requiring a surviving proponent, thus leading to performative contradictions. The former is the case with all proposals which imply granting *A* ownership over *B* and/or resources homesteaded by *B*, but not giving *B* the same right regarding *A*. The latter is the case with all proposals advocating universal (communal) co-ownership of everybody and everything by all (for then no one would be allowed to do anything with anything before he had everyone elses's consent to do whatever he wanted to do). In *The Ethics of Liberty*, his second *magnum opus*, Rothbard deduces the corpus of libertarian law—from the law of contracts to the theory of punishment—from these axiomatic principles, and along the way subjects the libertarianism of, among others, James Buchanan, Friedrich A. Hayek, and Robert Nozick, to criticisms.

Yet Rothbard's anti-statism is by no means confined merely to general theoretical considerations. Though first and foremost a theoretician, he is also a historian, and his work contains a wealth of empirical information rarely matched by any "empiricist." Moreover, it is precisely his recognition of economics and ethics as pure, aprioristic theory, and of such theoretical reasoning as logically anteceding and constraining every empirical investigation, which makes his historical scholarship superior to that of most standard historians (not to mention the pseudo-historical research of the "cliometricians"), and that has established him as one of today's outstanding "revisionist" historians. Whether economic or political history, from the American colonial history, the panic of 1819, the Jacksonian period, the Progressive Era, World War I, America's Great Depression, Hoover, FDR and the New Deal, from U.S. monetary history, the establishment of the Federal Reserve

System, the destruction of the gold standard, the Bretton Woods agreement, to U.S. foreign policy—Rothbard, with a detective's eye for the minutest detail of history's by-ways, has time and again challenged common wisdom and historical orthodoxy and has provided his readers with a vision of the historical process as a permanent struggle between truth and falsehood, economic wisdom and blundering, and between the forces of liberty and of power elites exploiting and enriching themselves at the expense of others and covering their tracks through lies and deceptions.

There is no substitute for reading Rothbard himself, if for no other reason than his ability as a writer, and the rigor of his reasoning. Now however, for everyone concerned with Rothbard, Austrian economics, libertarianism, and rationalist philosophy in general, *Man, Economy, and Liberty* is required reading as well.

Sheldon Richman, in an especially noteworthy study, explores the young Rothbard who wrote several hundred private reviews of books on almost everything for the late Volker Fund between 1952 and 1962. No one who reads his account can come away without being "impressed at how steady [Rothbard] is in so many ways, a Rock of Gibraltar—intellectually, philosophically, even stylistically." Almost everything that would later appear as the Rothbardian system is already contained, in a programmatic form, in these reviews: his vigorous opposition against empiricism-positivism; his untiring attacks on historicism, and ethical skepticism and relativism; his rejection of conservatism and its preference for "classical" (Greek) as opposed to modern (Lockean) natural rights theories; his anti-state vigilance; his relentless defense, instead, of epistemological and ethical rationalism, of praxeology, and of natural rights theory (as a logical theory akin to praxeology), and of their implied extremism and absolutism (truth can be discovered); as well as his revisionist historical outlook and his approbation of the pre-Marxist, classical liberal class, or power elite analysis of Charles Comte and Charles Dunoyer.

Gary North, in a brilliant polemic, undertakes an explanation of "Why Rothbard Will Never Win the Nobel Prize," and why he, similarly to Mises, has been treated most shabbily by academia throughout his career. Not only has he been out of step with the spirit of times from the 50s to the mid-70s as an advocate of laissez faire; he remains so to this day, even with the tide of Keynesianism and interventionism subsiding, because of his absolutism and apriorism when academia still, unchangingly, professes a confused pluralism (how can a pluralism of values be

said to be justified unless *it* can be shown to rest on a non-pluralist, absolute value?). More importantly, "Murray Rothbard has an addiction: clear, forthright writing. He says what he thinks, and he explains why he thinks it, in easily followed logic. He does not use equations, statistics, and the other paraphernalia of the economic priesthood. He simply takes the reader step by step through economic reasoning, selecting the relevant facts—relevant in terms of the economic logic he sets forth—and drawing conclusions." But doing this is a no-no among today's professional economists. "What impresses them is an economics book which cannot be understood even after three or four readings, and when its conclusions are at last grasped, they prove to be utterly inapplicable to the real world." Worse still, Rothbard's addiction to verbal logic, and his refusal to employ mathematics, is not merely accidental, but principled: utility is subjective and ordinal, and hence is unmeasurable; action takes place in discrete steps, and hence calculus, which requires the assumption of infinitely small steps, cannot be employed in economics; and action is choosing, preferring one thing to another, and hence indifference curve analysis is plain irrelevant.

While the lucidity of his writing has contributed to his neglect by the academic establishment, it has been instrumental for Rothbard's success in creating a social movement. Barred from all positions of academic power and prestige, and prevented to this day from turning out Ph.D. students, it has been the sheer power of his words that has attracted a steadily growing, world-wide following, from all social strata, of individuals dedicated to the perennial goal of independent thinking, relentless logic, and intellectual courage.

Numerous contributors offer restatements of Rothbardian themes and analyses, locating them in the context of past or present controversies, and applying Rothbardian insights to new problem areas, or replying to critics. Dominick Armentano restates Rothbard's pathbreaking monopoly theory: while it is meaningful to define a monopolist as a producer who, by virtue of a grant of privilege from government, is no longer subject to a regime of unrestricted free entry, and while its prices then can indeed be characterized as "too high" (as compared with free market prices, i.e., those that would prevail if there were no legal restrictions on entry), any attempt to distinguish between monopoly and competitive prices within the framework of a free market, such as in orthodox monopoly theory, is operationally meaningless. Either such attempts rely on the "model of perfect

competition" (criticized also in E. C. Pasour's contribution), which applies only to the never-never land of equilibrium (and is false even there—among other reasons—because of its assumption of a perfectly horizontal demand curve, which contradicts the law of marginal utility as a proposition deductively derived from the incontestable axiom of action) and is thus entirely irrelevant in helping to decide whether or not any real world prices are monopolistic ones. Or they define monopoly prices as higher prices reached through restricting production so as to take advantage of an inelastic demand and attain a higher total revenue. For one thing, however, every seller always sets his price such that he expects any price higher than the chosen one to encounter an elastic demand and so to lead to a reduced total revenue—and hence, under this definition, it would be impossible not to be a monopolist. And secondly, any movement from a subcompetitive price to a competitive one also involves a restriction and there exists no criterion whatsoever to distinguish such a restriction from the alleged monopoly price situation. Hence, to say anything more than that prices are free-market prices (or not) is devoid of any grounding in reality and thus meaningless.

Walter Block offers a fresh look at the institution of fractional reserve (deposit) banking, the pillar of all of today's banking systems, and defends Rothbard's claim—once, in the good old days, considered obvious—that anything but 100 percent reserve banking is fraud, plain and simple; and that, if banks would not act fraudulently because they were to admit openly that their instantaneous liabilities exceed their assets on hand, then they would no longer be banks but lotteries, and their notes would not qualify as money but as lottery tickets.

Roger Garrison reexamines the pure time preference theory of interest as espoused by Frank Fetter, Ludwig von Mises, and Rothbard, and criticizes a number of rival theories (in particular those of Gustav Cassel and Irving Fisher). In acting, man not only invariably aims to substitute a more for a less satisfactory state of affairs and demonstrates a preference for more rather than less goods; invariably he must also consider when in the future his goals will be reached; hence, every action also demonstrates a universal preference of earlier over later goods. That is to say, every action requires time to attain its goal; and since man must consume sometimes, time is always scarce for him. Thus, *ceteris paribus*, present or earlier goods are, and must invariably be, valued more highly than future or later ones; and an exchange of

a present good for a future one can only take place if the value of the future good is expected to exceed that of the present one—the value difference between present inputs and future outputs being interest. Contrary to all kinds of productivity theories of interest, then, it is the universal existence of a positive time preference, and of it alone, that accounts for, and explains, the phenomenon of interest.

Roger Arnold applies Rothbardian insights in order to analyze, and dispose of, attempts—particularly fashionable in public choice circles—to justify the existence of the state on prisoners' dilemma (PD) and/or transaction costs (TC) grounds. While it may well be admitted that prisoner's dilemma settings (situations of strategic game playing) and "high" transaction costs exist, it is a non-sequitur to conclude that this would prove anything regarding the necessity or desirability of state action. For one thing—a point not mentioned by Arnold—because in order to come up with the conclusion that something *should* be done about these alleged problems, one must smuggle a norm into one's chain of reasoning and hence would have to offer a theory of ethics—something, however, for which one looks in vain in the relevant literature. Nor is the economic case, to which Arnold explicitly restricts his analysis, any more conclusive.

In order to show that state action provides an economic solution to PD and TC problems, it must be demonstrated (and Arnold quotes James Buchanan to this effect) that it is capable of increasing everyone's utility level above what it otherwise would be. Yet this is impossible: first, it has to be noted that there surely exist market solutions to PD and TC problems. Reason and persuasion can be employed; the adoption of a tit-for-tat strategy can help overcome PD; and the reduction of TC is just as much part of entrepreneurial activities as is the reduction of any other kind of costs. If, in spite of this, PD and TC problems still remain unresolved, why, then, not ask "So what?" Maybe they do not deserve to be solved, or solving them would occur at the expense of solving other more urgent problems. Furthermore, if no market solution is available, then, by definition, any solution must be a coercive one. Yet, Arnold writes, "if individuals are coerced it follows that they are doing something they wouldn't be doing [and] one can not get more utility from something he wouldn't be doing than doing something he would want to do. We conclude that the State decreases utility levels—if not for all persons, then at least for some. And as long as we can not

measure whether the 'winners' gain more in terms of utility than the 'losers' lose, we cannot guarantee that there is even, at minimum, a net gain to having the State." (As regards the notion that all individuals may "voluntarily agree to be coerced," Arnold points out that such a thing has never been actually observed; worse still, one should add, the idea is patently absurd: for if the voluntarily accepted coercion is voluntary, then it would have to be possible to revoke one's subjection to the state, and it would be no more than a voluntarily joined club. If, however, one does not have this right—and such, of course, is the characteristic mark of a state as compared to a club—then it would be logically inadmissable to claim that one's acceptance of coercion is a voluntary one, and hence one's utility level would be reduced if it were continued.)

Finally, regarding transaction-cost justifications of the state in particular, Arnold trenchantly notes, "all costs, no matter what names we attach to them, are subjective; therefore they are unmeasurable. Given this, it does not make sense to say that transaction costs are high, or low, or somewhere in between. We conclude that the argument that purports to justify the State's existence, or State interventions, on the grounds that transaction costs are high makes as much sense as an argument that purports to justify the State on the grounds that Tuesday follows Monday."

David Osterfeld explains the Rothbardian concepts of freedom (and markets) and of power (and government): freedom is defined as a situation where each person has exclusive control (ownership, property) over his physical body, over all nature-given resources homesteaded with its help, over everything produced by such means, and over all resources contractually acquired from previous owners. On the other hand, the exercise of power is characterized by a person's invasion—or threat thereof—of the physical integrity of another's appropriated resources, and by non-contractual or fraudulent modes of restricting or eliminating another's control over his acquired property. He then compares these Rothbardian categories with rival definitions which have gained wide acceptance in the field of political science. Robert Dahl, Harold Lasswell, and Morton Kaplan, for instance, all very much alike, define power instead "as a special case of the exercise of influence involving severe losses for non-compliance," as "affecting policies of others with the help of (actual or threatened) severe deprivations for non-conformity with the policies intended." (One might add that a

similar definition had also been proposed by M. Weber and has since become highly influential in sociology.) Osterfeld has little difficulty showing the inadequacy of this definition, and the advantage of employing the Rothbardian distinction: given the fact that feelings are subjective and unmeasurable, there is simply no way whatsoever to objectively determine whether or not the losses or deprivations are "severe," and hence whether or not power is present or absent. The definition is strictly speaking non-operational. In contrast, Rothbard's definition clearly is operational. (Osterfeld does not go so far as to say that Rothbard's definitions, therefore, are the correct ones.)

Osterfeld, in his wide-ranging essay, also contributes valuable explanations regarding Rothbard's conception of power elites and power elite analysis. He relates it to similar approaches in political science, in particular those following in the footsteps of G. Mosca and R. Michels ("iron law of oligarchy"). He elaborates on the "logic" of the connection between government and banking and business establishments in forming a highly stable ruling class (or caste), explains the nature of party competition in all this, and finally indicates the success of the Rothbardian theory of power in explaining and predicting empirical events and phenomena.

Jeffrey Paul takes issue with the property theories of Robert Nozick and Hillel Steiner. Contrary to Rothbard, who argues in favor of the unrestricted validity of the first-use-first-own-rule (i.e., the homesteading principle) and, as implied by it, the equally unrestricted validity of a voluntary-title-transfer theory of property, Nozick and Steiner accept the latter part of this theory yet, for somewhat different reasons, take exception to the former. Paul, while explicitly not engaged in the more ambitious task of demonstrating the validity of the Rothbardian theory, undertakes to show it to at least be consistent, and to expose the theories of Nozick and Steiner as inconsistent and thus false: Nozick claims that once resources are owned by someone, this person also acquires ownership in everything produced in turn with their help, and that his property then can only be legitimately acquired by someone else via voluntary, contractual transfers. (It is this part of his theory that made Nozick appear as a libertarian.) Yet how do resources come to be owned in the first place? Nozick explicitly rejects the idea that "mixing one's labor" with unowned, virginal objects is sufficient for this to happen—the central idea of John Locke's property theory—and, similar to Locke and equally unfortunate, Nozick adds a

"proviso." According to him, unowned objects become justly acquired if and only if a person's act of appropriation (a) improves the value of the object, and (b) does not worsen the position of others by depriving them of the liberty of using this object, or by adequately compensating them if such a worsening should occur. (He passes over in silence the all-decisive questions of how one would objectively ascertain whether or not someone's position had been worsened, and how much compensation would be adequate. Nor does he seem to be aware of the absurd implications of this theory: what, for instance if I were to declare that Nozick's ownership of his physical body worsened my position, and that he, in order to compensate me for this, would be required to shut up forever or drop dead? Surely, on his theory, there can be nothing wrong with such a request.)

Paul has no trouble showing the inconsistency of this theory. What is Nozick's reason for adding the proviso (i.e., condition b) on the level of original appropriation? Mixing one's labor with a virginal resource, Nozick argues, does not imply that the resultant object is the exclusive result of one's labor; thus it also cannot entitle one to exclusive control over the resultant object but, he claims, only to the value added to it; and hence the welfarist proviso. But if this is correct, Paul notes, then there is no reason whatsoever why the proviso should ever be dropped, and the title-transfer theory of property should come into play at subsequent stages of production, as Nozick claims. For obviously, regardless of how far the process of manufacturing objects is removed from the original act of appropriating nature-given resources, invariably there remains a virginal component in each and every object, and hence the welfare proviso would have to apply throughout. (One should note again the self-refuting character of this line of reasoning.)

Moreover, as Paul points out, Nozick, in shifting his argument from the level of physical phenomena to that of values, may not have provided a reason for the introduction of the welfare proviso at all. For while it is true that no physical object can ever be regarded as the exclusive result of one's labor, the entire value or utility of an object surely can. For without being at least discovered by someone, objects are obviously without any value whatsoever to anyone. Discovering something, however, writes Paul, "is the product of human efforts, not of natural circumstance"; and hence the discoverer can be said to have created the entire value of a discovered resource and thus

would be entitled to its full ownership even on Nozick's own added-value theory.

Steiner's theory is similar to Nozick's and breaks down for essentially the same reasons. Instead of the Lockean proviso, Steiner, at the level of original appropriation, advocates a principle of equal distribution of virginal resources, his reason for rejecting the homesteading principle being, like Nozick's, that virginal resources are produced by no one, and hence cannot be owned by anyone in particular. Accepting this reasoning, however, leads to an all-out egalitarianism (i.e., it would be impossible to restrict it to the level of original appropriations, as Steiner would have it). Moreover, on this theory as on Nozick's, it would be impossible to justify each person's ownership of his own physical body (which Steiner takes for granted). His egalitarianism would also have to apply to bodies. But, as I have already shown regarding Nozick's case, such a position leads to performative contradictions and is thus self-defeating.

While the majority of the contributors to *Man, Economy, and Liberty* would probably describe themselves as Rothbardians of some sort, not all would accept this label. In fact, though invariably sympathetic to Rothbard, several contributors advance ideas incompatible with, or critical of, his work. Israel M. Kirzner's essay on welfare economics is a case in point. Kirzner sets out with a restatement of some basic tenets, uncontroversial at least among Austrian economists, such as (a) methodological individualism: only individuals act and have values; talk about society is meaningless unless it can be unambiguously translated into statements concerning individuals; (b) subjectivism: utility, welfare, etc., refer to unmeasurable states of affairs, demonstrated through actual choices and capable only of ordinal ranking; and (c) an emphasis on process: decisive for judging welfare implications is not so much the outcome of actions but rather the process, or the rules generating the outcome. He then correctly criticizes traditional welfare economics by pointing out that "to attempt to aggregate utility is not merely to violate the tenets of methodological individualism and subjectivism (by treating the sensations of different individuals as being able to be added up); it is to engage in an entirely meaningless exercise."

Much less convincing is his following critique of the idea of Pareto-optimality. Kirzner claims that this notion "reflects a supra-individual conception of society and its well-being," and he regards this as its main defect. Because he merely reiterates this claim and does not explain it, I fail to grasp it and would still

contend that the idea of Pareto-optimality is fully compatible with methodological individualism because of its unanimity requirement. The problem with Pareto-optimality as a welfare criterion, as Rothbard has repeatedly explained, is a completely different one. According to its orthodox version, it does not provide any criterion for selecting the starting point from which we are to begin making Pareto-optimal changes and thus boils down to an unprincipled advocacy of the status quo. Based on this criterion, slavery, minimum wage laws, or rent controls, once in place, could never be justifiably abolished, because surely there will always be someone whose situation is thereby worsened. If, however, the Pareto criterion is firmly wedded to the notion of demonstrated preference, it in fact can be employed to yield such a starting point and serve, then, as a perfectly unobjectionable welfare criterion: a person's original appropriation of unowned resources, as demonstrated by this very action, increases his utility (at least ex ante). At the same time, it makes no one worse off, because in appropriating them he takes nothing away from others. For obviously, others could have homesteaded these resources, too, if only they had perceived them as scarce. But they did not actually do so, which demonstrates that they attached no value to them whatsoever, and hence they cannot be said to have lost any utility on account of this act. Proceeding from this Pareto-optimal basis, then, any further act of production, utilizing homesteaded resources, is equally Pareto-optimal on demonstrated preference grounds, provided only that it does not uninvitedly impair the physical integrity of the resources homesteaded, or produced with homesteaded means by others. And finally, every voluntary exchange starting from this basis must also be regarded as a Pareto-optimal change, because it can only take place if both parties expect to benefit from it. Thus, contrary to Kirzner, Pareto-optimality is not only compatible with methodological individualism; together with the notion of demonstrated preference, it also provides the key to (Austrian) welfare economics and its proof that the free market, operating according to the rules just described, always, and invariably so, increases social utility, while each deviation from it decreases it.

Despite his initial emphasis on the importance of the consideration of processes for welfare economics, there is no systematic mention by Kirzner of any rules: of how to acquire resources, or change, or exchange them, of markets, or market interventions. Instead, what follows his critique of Pareto-

optimality, is the suggestion of another welfare criterion—inspired by Hayek and open to more severe criticisms than Pareto's—and a murky, non-operational distinction.

Kirzner's new, as he claims genuinely Austrian, criterion is that of "coordination—permitting each agent to achieve his goals through the simultaneous satisfaction of the goals of the other agent." Regarding this proposal one might first note that while each individual can judge on his own whether or not some act of his or of others makes him better or worse off, or leaves his welfare unaffected, judging whether or not one's act simultaneously satisfies the goals of others would require knowing what their goals are, and it is this criterion, then, which actually suffers from a "supra-individual conception" incompatible with methodological individualism. Second, the coordination criterion is unduly restrictive in eliminating an entire class of actions which have clear-cut welfare implications from consideration altogether. If I plant a flower in my garden, my welfare is increased, no one is thereby made worse off, and hence one might say that social welfare has increased. Yet obviously, there is no question of coordination here, and it thus would seem plainly false to say that coordination is a universal desideratum of action. Third, the coordination criterion suffers from precisely the same problem as the Pareto-criterion in its orthodox version, i.e., it boils down to an unprincipled defense of the status quo. Kirzner, too, would have to address the all-decisive question of how to assign property rights initially so as to have a justified starting point from which to begin to achieve better coordination. For surely, he would not want to argue that social welfare in any meaningful sense is increased if my actions and those of an IRS agent are coordinated as compared to a situation where I would try to obstruct his plans.

One may now admit that the last problem possibly can be overcome, and that the coordination criterion can be employed to reconstruct welfare economics along lines similar to those sketched above by utilizing the idea of Pareto-optimality, so as to reach the conclusion that the free market is not only always Pareto-optimal but always optimally coordinated as well—taking into account, of course, the facts of uncertainty and imperfect knowledge, the dispersal of knowledge among different individuals, the costs associated with the acquisition and communication of knowledge and of learning, etc. But the idea "that in a world of dispersed knowledge . . . sub-optimality or states of dis-coordinatedness cannot be postulated to exist (if one

properly includes the costs of information-acquisition)" Kirzner curiously holds to be false. Why? Because, he writes, the "dispersal of knowledge necessarily involves not merely new costs (of learning and communication) but also the very real possibility of what we may call 'genuine error'. . . . Genuine error occurs where a decision maker's ignorance is not attributable to the costs of search, or of learning or of communication—i.e., it is the result of his ignorance of available, cost-worthy, avenues to needed information. . . . At the level of the individual decision-maker we may describe his activity as having been sub-optimal when he subsequently discovers himself to have inexplicably overlooked available opportunities that were in fact worthwhile. He cannot 'condone' his faulty decision-making on the grounds of the cost of acquiring information, since the information was in fact costlessly available to him. He can account for his failure only by acknowledging his utter ignorance of the true circumstances (i.e., of his ignorance of the availability of relevant information at worthwhile low cost)."

I must confess that I consider this notion of utter ignorance meaningless. First, it is incompatible with the idea that costs are subjective and incurred at the point of decision making, which Kirzner elsewhere has done so much to explain, and rather represents a relapse into the presubjectivist era of economics. For how can he claim that knowledge was in fact "costlessly available," or available at a "worthwhile low cost" even though it was demonstrably not available to the actor—unless he were to claim that he had an objective measure of cost at hand. The fact that in retrospect, after discovering an error, one might say "wow, I could have known this for nothing," does not prove anything about the costs incurred at the point of decision making. Second, the concept is non-operational. No one can distinguish between errors stemming from utter ignorance and those "normal" ones resulting from the costs of learning, information acquisition, and general uncertainty. Obviously, no one can know ex ante what kind of error it is that he is going to make—otherwise he would not make it. And ex post considerations of what it would have cost to have avoided certain mistakes if only one had known better earlier are just that: retrospective speculations which may or may not have any impact on current or future decision making. Third, the concept of entrepreneurship does not require the assumption of utter ignorance, as Kirzner implies, but rather only the clear-cut and indisputable fact of uncertainty. Uncertainty explains

entrepreneurship and pure profits. Utter ignorance, even if it existed, is neither a necessary nor a sufficient condition for it. Finally, "So what if utter ignorance exists?" What has this to do with welfare economics? Economics in general and welfare economics in particular deal with action and interaction, with scarce means and goals, and with choices. Economic theory requires no specific assumption about possible types of knowledge and error. It merely requires that there be knowledge and error, i.e., that actors pursue goals employing knowledge—act intentionally—can tell the difference between success and failure, and can recognize intellectual errors of any sort as accountable for specific outcomes. Any discovery of new or different types of errors is thus plainly irrelevant for economics and economic theory.

Kirzner promises a "modern Austrian perspective on welfare economics." I am inclined to think that it is not an Austrian perspective at all. It appears to violate the principle of methodological individualism; it contradicts the principle of subjectivism; and no consideration is given to rules and processes of acting, and of employing scarce physical resources in the pursuit of scarce goals, and all attention is shifted to economically irrelevant problems in the psychology of knowledge.

Leland B. Yeager's stimulating paper also deals with welfare economics. His approach is different from Kirzner's. Despite his hope, however, that it may be "compatible with or complementary to what [Rothbard] has written," it suffers from equally grave deficiencies and is just as incompatible with the Rothbardian "Reconstruction of Utility and Welfare Economics." Following John Harsanyi, Yeager suggests "maximum expected average utility" as a welfare criterion. The idea is roughly as follows: assume the position of an "impartial spectator" who considers and must choose between "alternative types of society, in each of which he would be a person selected at random, enjoying or suffering his fate in accordance with that person's utility function and position in life." Harsanyi and Yeager both argue that under these circumstances one would rationally choose the social order which maximizes average utility. For the sake of argument I am willing to accept this as plausible enough; and I am also prepared to go along with their, in particular Harsanyi's, critique of rival, more egalitarian welfare criteria as proposed by John Rawls or Amartya Sen. The average utility criterion does "already take account of risk aversion in cases of

dispersed possible outcomes expressed in utility terms." All egalitarian sentiments, as they may exist, are already reflected in the impartial spectator's social welfare function. To propose a more egalitarian criterion would amount to double counting. Hence, according to Harsanyi's von Neumann-Morgenstern conception of utility, in any case the impartial spectator would rationally prefer to maximize expected average utility rather than choosing any other criterion. So far so good. But then, "So what?"

What is this but mental gymnastics, non-operational, and without any praxeological foundation—in this respect not at all different from the conceptions of the majority of contemporary political economists and theorists, whether they are utilitarians (like Yeager), or contractarians (like Rawls), right (like Hayek), or left (like Sen)? Asked what the basic rules regarding the appropriation, allocation, transformation and transfer of scarce resources are, that would be recommended on the grounds of the Rawlsian difference principle, or Yeagers maximum average utility criterion, or whatever, there is simply no definite answer forthcoming. This should be sufficient evidencing that something is wrong with the theory at hand. In academia, however, the opposite has occurred. If a theory yields no specific conclusions at all concerning the foremost practical question to be answered (i.e., how I am to employ scarce physical resources so as to act correctly, optimally, or justly); and/or if it allows us to reach any conclusion whatsoever, including incompatible ones (Hayek, it might be recalled, in *Law, Legislation, and Liberty*, characterizes his welfare criterion as essentially—John Rawls's), the more serious is the attention that it receives. Rawls, indeed, with a theory that is the most painful example of this species of operational meaninglessness, has come to be accorded the rank of the preeminent practical philosopher of our age.

The systematic explanation for this disturbing phenomenon is a fatal error on the level of theory construction committed by Yeager as well as by Rawls. Any welfare criterion must be praxeologically, constructively realizable, i.e., it must be possible for us, who invariably must act and employ resources, to actually implement such a criterion and to consistently act upon it, otherwise it would be no welfare criterion at all but a praxeologically irrelevant chimera. Yeager's criterion, like Rawls's or Hayek's, is such a chimera, because it cannot be constructively realized.

In Rawls this constructive unrealizability is particularly

acute: Rawls supposedly gets his criteria from know-nothing epistemological zombies sitting behind a "veil of ignorance," engaged in unconstrained considerations of alternative social orders for actual, non-zombie persons. For one thing, "Who cares?" What has this to do with our, human problems? But secondly, even if we wanted to know, we could not even try finding out, because we are not zombies behind a veil, but individuals who must continuously act in order to make a living. Rawls's contribution is thus irrelevant, non-operational, and self-contradictory on top.

The impartial spectator model adopted by Harsanyi and Yeager is somewhat more realistic. Individual actors can indeed assume the role of a "neutral" spectator and evaluate alternative societies; and they may well use maximum average utility as their decision criterion. Yet what if Yeager, Harsanyi, Rawls, and I, as hard as we try to be as impartial as we can be, do not choose the same but incompatible societies as maximizing average utility, as is likely to happen? It is here that the theory breaks down again as inoperable and praxeologically impossible. For it would be impossible to realize incompatible societies simultaneously; only one can be realized at a time. But which one? The criterion of maximum average utility has already done its work—but still there is disagreement as to which arrangement maximizes average utility. Aggregating is inadmissible, as Yeager agrees, and would lead to arbitrary results. But then there is nothing left to go on. Faced with incompatible alternatives one is actually told not to do anything, because one's criterion does not yield a conclusion.

Obviously, however, such advice is impossible to follow. We cannot stop acting; we always must either do one thing or another, and through our actions we contribute to the construction of one society or another. The utilitarian maximum average utility criterion does not give us a clue as to what to do in this situation; it is impossible for us to actively apply it; and whatever its relevance otherwise might be, from the point of view of economic theory it is pure moonshine, without any importance for our human quest to know how we are to act with scarce resources here and now so as to act correctly in terms of either social utility or justice.

The Rothbardian welfare theory, in terms of a theory of property rights, provides a definite answer—in the form of praxeologically meaningful criteria—to this inescapable problem. If impartial spectators cannot come to an agreement, or

constitutional contractors cannot reach a contract, obviously this cannot mean that they would then have to suspend acting, nor can it imply that any further action is as correct as any other one. The fact merely shows that it is irrelevant to welfare economics what impartial spectators think or believe. It is not what one says about social welfare that counts, but what one demonstrates about utility through one's actions: in playing the intellectual game of considering alternative social models for their capability of maximizing average utility, or of designing constitutions, one is still acting and employing scarce physical resources, and hence, prior to even beginning these intellectual plays, as their very own praxeological foundation, there must be an acting man, defined in terms of physical resources. Utility considerations à la Yeager, or agreements, or contracts already presuppose the existence of physically independent decision making units and a description of their existence in terms of a person's property relations regarding definite physical resources —otherwise there is no one to agree on anything, and nothing on which to agree about which to contract. More specifically, by engaging in discussions about welfare criteria that may or may not end up in agreement, and instead result in a mere agreement on the fact of continuing disagreements—as in any intellectual enterprise—an actor invariably demonstrates a specific preference for the first-use-first-own rule of property acquisition as his ultimate welfare criterion: without it no one could independently act and say anything at any time, and no one else could act independently at the same time and agree or disagree independently with whatever had been initially said or proposed. It is the recognition of the homesteading principle which makes intellectual pursuits, i.e., the independent evaluation of propositions and truth claims, possible. And by virtue of engaging in such pursuits, i.e., by virtue of being an "intellectual" one demonstrates the validity of the homesteading principle as the ultimate rational welfare criterion.

There are other notable contributions in this volume of generally high-quality essays, such as David Gordon's perceptive observations on the claims of the theory of natural, or human rights; Antony Flew's critique—as the collectivist counterpart to the tradition of Locke and Rothbard—of Rousseau and his political philosophy; and Ralph Raico's article on the radical Free-Trade-Movement in nineteenth century Germany and John Prince Smith, its leader from the 1840s until his death in 1874—a tradition almost completely unknown to contemporary

Germany.

Finally, the collection also offers a glimpse of Murray Rothbard as a movie critic (by Justus Doenecke), as a critic of music and culture (by Neil McCaffrey), and his principles of aesthetic judgment. The volume appropriately concludes with personal notes by Margit von Mises and Joey Rothbard.

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Eighteen Problematic Propositions in the Analysis of the Growth of Government

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Economists, public choice analysts, political scientists, and other scholars, especially during the past 10 to 15 years, have made many studies of the growth of government. As the literature has grown, a number of conventions have become established with respect to concepts, measures, assumptions and modes of analysis. Certain contributions have been viewed as paradigmatic and hence have served as models for subsequent contributors. No analytical consensus has emerged. Indeed, one can perceive the outlines of several competing "schools"—a Chicago school, a Washington school (see Proposition 16), a mainstream economics school, a libertarian school, several distinct positions within the public choice community of scholars, and others.

Despite the diversity of approaches and conclusions, much of the work has been premised, implicitly if not explicitly, on the acceptance of propositions that are questionable at best. In what follows, I shall state these propositions and criticize them. Although I shall provide citations and examples of scholars who have advanced or accepted the flawed propositions, my aim is not to compile a catalog of sinners. The examples are intended only to provide concrete illustrations of how various analysts have proceeded and to demonstrate that I am not quarreling with phantoms.

The discussion that follows pertains mainly to the growth of government as it has occurred in the countries of Western Europe and their overseas offshoots during the past two centuries, especially during the twentieth century. I have specific expertise with regard to only one case, the United States, so much of my discussion relates especially to that case. This restriction of the frame of reference does little harm, because the ideas I shall criticize have themselves been employed in the same empirical domain for the most part. Further, as will become obvious, I believe that attempts to achieve universally applicable explanations of the growth of government are doomed to fail in

any event. I disavow at the start any pretension of contributing to the construction of a single all-encompassing theory.

Proposition 1

Government activities can be reduced to a single variable (the "size" of government), which can be accurately measured.

Modern governments undertake many distinct activities. They take money away from people by taxation and fines; they deliver the mail; they operate law courts where citizens resolve various disputes and tennis courts where people work on their backhands; they conduct medical research; and so forth in nearly endless variety. To sum up the various activities, one must measure each of them in a common unit—persons on the government payroll, for example, or dollars spent by the government. These methods of achieving commensurability seem to make sense until one inquires a bit deeper.

Suppose that, *ceteris paribus*, the government has added a billion dollars to its spending for operating the law courts and cut a billion dollars from its spending for farm subsidies. Has the government grown? If the changes had been reversed, would the government have grown? The answers are far from obvious. Government (as a set of activities) is what government (as a group of people) does, but because governments do so many diverse things, no common unit of account can scale the underlying reality satisfactorily.

Often government employees or dollars work at cross purposes in their impact on the economy. Many analysts have noted the prodigious "cross hauling" or "churning" associated with modern government activities (Becker 1983, p. 389; 1985, p. 341; Musgrave 1985, p. 305). On the one hand, government wheat researchers develop higher yielding varieties of the crop, thereby increasing the supply and decreasing the price. On the other hand, government acreage restrictions decrease the supply and increase the price. Such examples can be multiplied indefinitely. I do not mean to suggest that the churning is accidental or politically irrational in its inception, because interested parties set each part of the process in motion with their eyes open and their hands grasping. The implication for muddled measurement remains, however, regardless of the motives involved.

In view of the heterogeneity, incommensurability, and

offsetting impacts of many government activities, the information content of any one-dimensional measure of "the" size of government verges on nil (Peters and Heisler 1983, pp. 178–81, 186; Rose 1983, p. 7). Much more informative would be an answer to the question: *What in particular* is government doing more frequently or less frequently? Most analysts of the growth of government simply ignore this problem.

Proposition 2

The best measure of the size of government is relative government spending, the ratio of government spending to the gross national product. Good alternative measures include relative tax revenues (the ratio of tax revenues to GNP) and relative government employment (the ratio of government employees to labor force).

Many analysts forgo entirely an attempt to justify measuring the size of government as the ratio of government spending to GNP. (Often GDP and occasionally NNP or National Income serve as the denominator.) They just plunge ahead (Lowery and Berry 1983, pp. 666–67; Mueller 1987, p. 115), noting, if anything, that "everybody does it." But choices still must be made. Should the analyst include all government spending, including transfer payments, or only the government's "exhaustive" spending for newly produced final goods and services, which is a component of GNP as conventionally defined? Both measures are used. Frequently, however, as in the United States during the past 40 years, the two measures behave quite differently—in this case the all-spending ratio tends to rise more or less steadily while the "exhaustive" measure remains more or less level (U.S. Council of Economic Advisers 1989, pp. 78, 397, 402). Regardless of the exact measure selected, using relative government spending to measure the size of government gives rise to many curiosities.

Consider some cases. (1) Suppose the cereal makers produce and sell more corn flakes, but nothing else changes. Implication: government has shrunk. (2) Suppose people from the Defense Department sit down with people from General Dynamics and agree to pay more per unit for this year's purchase of (the same number of) F-16s, but nothing else changes. Implication: government has grown. (3) Suppose the government switches, as it did in 1973, from a military conscription system to a volunteer military force, which will entail payment of higher salaries to

military personnel, but nothing else changes. Very strange implication: government has grown. (4) Suppose that local governments across the country stop operating and spending money for sewerage plants, mandating instead that every home or business releasing sewage into the system ensure that the effluent meets strict treatment standards, with all costs to be borne by the private sewage generators, but nothing else happens. Implication: government has shrunk. Such examples can be produced virtually without limit. Nor are the examples merely contrived. Arbitrary or counterintuitive determinants of changes in the government's relative spending are part and parcel of this measure of the size of government.

Similar observations, and many others, might be made with respect to using relative tax revenues as an index of the size of government. Whenever an index is a ratio with GNP as its denominator, all sorts of oddities may arise. In the workaday world of government fiscal reports, the repeated shuffling of various taxes, especially some or all of the Social Security tax, between on-budget and off-budget status further confuses the historical record (U.S. Office of Management and Budget 1989, p. 6).

Michael Boskin (1987, p. 60, emphasis added) recently concluded that, for various reasons, "the accounting problems are so fundamental and pervasive that federal budget Figures can not be used to compile an accurate representation of our *fiscal* history." (See also the strictures of Stiglitz [1989, p. 68] on the misleading way the national accounts treat government enterprises.) *A fortiori*, these figures cannot serve as a reliable basis for measuring the overall size of government in all its significant economic dimensions.

How, for instance, should one take into account the various activities of government in the credit markets? Governments now make many types of loans on their own accounts, insure private loans, subsidize or grant tax breaks on the extension of certain loans, and insure—sometimes far beyond the explicit promise—deposits in banks and savings institutions. Joseph Stiglitz (1989, p. 63) notes that "in the US today, approximately a quarter of all lending (to the private sector) is either through a government agency or with government guarantees. . . . The magnitudes of the implicit subsidies and costs—both the total value, and who receives how much—are hidden."

Relative government employment also is a fragile index of the size of government, partly because governments hire millions

of "contractors" (Hanrahan 1983). These workers are classified as members of the private labor force, even though they work exclusively on projects set in motion by governments and receive compensation entirely, if often indirectly, from government revenues. Why are they considered any more "private" than regular government employees? Only because of legal technicalities and accounting conventions that do not reflect the substance of the matter. As the composition of the total effective government workforce (regular government employees plus "private" government contractors) changes, as it often does, the standard index of relative government employment becomes a spurious indicator of whether government has grown or shrunk.

Proposition 3

Even if relative government spending (or one of the commonly employed "good alternative measures") doesn't properly measure the true size of government, the two are highly correlated over time, and hence relative government spending is an adequate—indeed indispensable—proxy variable for empirical analysis.

Many analysts know that acceptance of this proposition is risky (Lindbeck 1985, pp. 314, 325; Borcherding 1985, pp. 376–77). Yet most proceed, often into extremely intricate modeling and highly sensitive econometric analysis, without further ado. Sam Peltzman, in a widely read and cited study (1980, p. 209), was commendable for his candor:

> I am going to equate government's role in economic life with the size of its budget. This is obviously wrong since many government activities (for example, statutes and administrative rules) redirect resources just as surely as taxation and spending, but the available data leave no other choice. My operating assumption has to be that large and growing budgets imply a large and growing substitution of collective for private decision in allocating resources.

This rationale, accepted by many others besides Peltzman, has several defects.

It simply is not true that one has no choice. There are

mountains of evidence not only about the details of spending and taxing but about the multifarious commands expressed in statutes, regulations, and judicial rulings, all of which sit in the archives and libraries awaiting researchers. Perhaps studying such nitty-gritty evidence is beneath the dignity of modern, "high-powered" economists. If so, they need only make the "operating assumption" that a single data series, which they can retrieve from a standard statistical source, provides all the information required for an adequate analysis of the complex phenomena that constitute the actual behavior in question. One is reminded of the old joke about the people marooned on an island with cans of food but no can opener. After a chemist and a physicist propose esoteric technical solutions, the economist in the group offers his way of dealing with the problem: "Let us assume we have a can opener."

As for the assumed high correlation between the observed data series and the unobserved reality, how does one know? Unless one makes an effort to establish at least the likelihood of a close correlation, one is simply making a raw assertion, a leap into the void. (Borcherding [1985, p. 377] frankly recognizes the problem but does nothing about it.)

Proposition 4

Point-to-point or trend-rate measures are adequate explicanda for the analysis of the growth of government.

Analysts of the growth of government often rely on only a portion of their data (forget for the moment all that is wrong with the data anyhow). They may simply compare the size of government at one time with its size at a later time. Noting that government grew *X*-fold between the two dates, they proceed to explain the One Big Change by relating it to Other Big Changes in explanatory variables during the interim (Borcherding 1985, pp. 362–69). Others fill in more blanks, examining measures for "selected years" (North and Wallis 1982, p. 337; Bernholz 1986, pp. 662–63; Mueller 1987, pp. 116–17). Still others compute from annual or semi-annual data a series of decade averages or a trend rate of change, making that their explicandum (Bernholz 1986, pp. 664, 676, 678). In each case valuable information is ignored, at great risk to the validity of the analysis.

For example, Gerald Scully (1989, p. 6.93) makes much of a shift from local government spending to state and federal

government spending in the United States between the average for 1902–1927 and the average for 1960–1988. Had he examined all the available data, he would have discovered that almost the entire shift occurred between 1932 and 1936 (Wallis 1985, p. 5). Obviously the change had more to do with the Great Depression and New Deal politics than with the long-term changes in the focus of rent-seeking emphasized by Scully.

Aside from the inadvisability of throwing away information in an empirical analysis, one has a more fundamental reason for examining the full sequence of data: the growth of government has been a path-dependent process. Because social understandings gained from experience constrain social beliefs and actions, where the relation of government to the economy can go depends on exactly where it has gone—that is, what precisely people's experiences have been—in the past. One needs to examine the entire profile of the growth of government to discover the dynamic interrelations of ideas and events over time. (Analysts who emphasize path-dependency include Hughes [1977] and Higgs [1987a].)

Some analysts believe that it is better to smooth the data or even to omit certain deviant years from consideration (Meltzer and Richard 1983). These analysts view the unruly observations as unlikely stochastic deviations from a smoothly changing central tendency; they prefer that their statistical analysis not be contaminated by "outliers" (and maybe that their coefficients of determination not be diminished). I shall criticize the theoretical foundation of these views when I discuss Proposition 7 below. For now it suffices to observe that the crises of history, when government expanded abruptly, were real. People did not forget them. Indeed, people were deeply affected by such experiences and later behaved differently as a result.

Proposition 5

Government can be analyzed as something having an abstract "functional" relation to the economy; it is unnecessary to consider government officials as autonomous decision makers having genuine discretion and making real choices.

The approach implied by this proposition frequently appears as what I call the Modernization Hypothesis, which maintains that a modern, urban-industrial, technologically advanced economy simply must have a big, active government. Modern socio-

economic affairs are so complex. How could they possibly take place successfully without the guiding, regulating, coordinating hand of government? “The increased complexities and interrelationships of modern life,” said Calvin Hoover (1959, p. 373), “necessitate this extension of the power of the state.” Supreme Court Justice William Brennan echoed this view in a 1985 speech. “The modern activist state,” he declared, “is a concomitant of the complexity of modern society; it is inevitably with us” (quoted by Kozinski n.d., p. 6).

One doubt arises immediately. Why is government so much bigger in some countries than in other, equally modernized countries (say, Sweden vis-à-vis Switzerland)? But this is not the most fundamental problem.

Anyone who has understood the message of Adam Smith, not to speak of the more penetrating and pertinent contributions of Ludwig von Mises and Friedrich Hayek, immediately doubts the Modernization Hypothesis. Indeed it seems backwards, for whereas government might be able to coordinate a simple pre-modern economy, it certainly could not coordinate successfully a complex modern economy. The now undeniable failure of all the centrally planned economies, confirming the early insights of Mises and Hayek, clearly supports the Austrian position on this question.

But my point is different; it has to do with methodological individualism. Even if it were true that a modern economy “requires” bigger government for its effective coordination, the Modernization Hypothesis would be virtually worthless as an explanation of the growth of government. The fatal flaw is the absence of a human actor. Just because a course of action is “necessary” in some systemic sense for the successful operation of an economy does not ensure that anyone has a personal incentive to work toward fulfilling the requirement. In the Modernization Hypothesis the process is magical: the economy “needs” bigger government—POOF!—the government grows. But who did what to make it happen? And why did these actors find it in their interest to take such actions? To these questions, the Modernization Hypothesis, like every other “functional necessity” explanation, has no answer.

Functional necessity explanations implicitly view government officials as robots who lack genuine discretion and make no real choices, automatons programmed to accomplish whatever is necessary to optimally serve the known, unambiguous “public interest.” This view is mystical and

obscurantist; it is also patently, empirically wrong. (For more general observations on methodological individualism and "the false organismic analogies of scientism," see Rothbard [1979, pp. 15–17, 57–61] and sources cited there.)

Proposition 6

Government can be analyzed as if it were a single decision maker; it is unnecessary to consider conflicts of interest within government or migration back and forth between the ruling group and the ruled group.

The difficulties of formal modeling and the analytical attractions of simplicity have enticed many analysts to embrace this proposition. (An outstanding example is Auster and Silver [1979].) Of course, in ordinary discourse and in newspaper columns, we frequently encounter statements that "the government" did something or "the government" decided such and such, without any specification of which government officials in particular took the action. Sometimes such usage is a harmless abbreviation. But more is at stake when analysts adopt such a conception.

Even so astute a scholar as Douglass C. North (1981, pp. 20–32) built his "neoclassical theory of the state" on the assumption of "a state with a single ruler . . . a wealth- or utility-maximizing ruler" (p. 23) who can act in a way that his subjects cannot because, as a single person, "he has no free rider problem" (p. 32). However useful this conception may be in understanding a medieval lord of the manor or the court of Louis XIV, it has virtually no applicability to the governments of the western world whose growth during the last two centuries concerns us here.

Modern governments consist of thousands of important decision makers, not to mention the millions of minions who have at least a bit of discretion in carrying out delegated activities. In the United States today, for example, there are more than 80,000 separate governments, more than 60,000 with the power to tax (Higgs 1987a, p. 6). Moreover, people are constantly passing back and forth between the ruling group and the ruled group. The "revolving door" is notorious at the Department of Defense, but a similar phenomenon occurs at many other places in the government. In many instances, one would be warranted in regarding certain persons formally

outside the government as more a part of it than most of those formally inside it—-just think of the exogovernmental potency of such figures as Walter Lippmann, Felix Frankfurter, John J. McCloy, David Rockefeller, and Henry Kissinger, to name only a few notables among many. (For a plethora of contemporary examples, see Dye [1990].) In any event, no one person, no small group, calls the shots for the whole hydra-headed creature that is "the state." People within the ruling circles, though they may share at least one goal (retaining their own powers and privileges) constantly engage in internecine struggles. Supposing that the government operates as if it were a single decision maker cannot take us far toward a realistic understanding of modern government or its growth.

Proposition 7

There exists a structure of politico-economic behavioral relations (an "underlying model") whose workings generate the growth of government as a dynamic equilibrium outcome; and this structure does not change over time.

Whether they think about it or not, analysts who test their theories of the growth of government by fitting a linear regression model to the time-series data for a certain period are accepting this proposition. Econometric theory admits of no exception if the estimated coefficients are to have the meaning they are supposed to have. Thus, if the theory contains the equation

$$(1)\ G = \alpha + \beta X + u$$

and, using linear regression techniques, one estimates the parameters α and β from time-series data for the years 1901–1989 as a and b, respectively, then one is assuming, *inter alia*, that the politico-economic world was working such that whenever X took the value x', *then* G as a result took the value $a + b(x')$, plus or minus a purely random amount u', and this result was the case regardless of whether X took the value x' in 1901, in 1989, or in any other year during the time period to which the model is fitted. That is, the underlying model is assumed to be invariant as specified by equation (1). The econometric estimation is designed only to ascertain the numerical values of the parameters, not to test or otherwise call into question the

functional specification of the model. The specification is presumed to be given to the investigator by his theory independent of any empirical observation—in effect, by divine revelation, though the source may well be one of the lesser deities.

Suppose that G denotes total government spending and X denotes total personal income as defined in the standard national income accounts. Suppose further that the estimated value of β turns out to be $b = 0.3$. The interpretation would be that every additional dollar of personal income gave rise to an additional 30 cents of government spending, *no matter when* during the period that extra dollar came into people's possession: the identical quantitative linkage existed for income changes occurring between 1901 and 1902, between 1988 and 1989, indeed between *any* two years in the test period, whether the pairs be 1933–1934, 1945–1946, or any other. The dates just don't matter—by assumption.

Is the assumption plausible? No. The world of 1901 differed in many pertinent ways from the world of 1989. Among other differences, people at the two dates had quite different ideas about what they wanted the government to do. In the United States in 1901 many people still thought in terms of a variant of classical liberal ideology. They wanted not much more than a night-watchman state, and they already had more than that (Higgs 1983; 1987a, pp. 77–105; 1989c, pp. 92–98). In 1989, in contrast, most Americans had relatively inflated ideas about the range of social and economic "problems" they wanted the government to "solve" (Smith 1987; Higgs 1989c, pp. 101–03). Even if the ideology had not changed—and historians may reasonably differ about precisely how and when it did shift—socio-economic and political conditions certainly had changed enormously. In 1901, a majority of the population still lived in rural areas and 43 percent of the labor force worked in farming, fishing, and mining. In 1989, less than a quarter of the population lived in rural areas (many of them with easy access to a city) and less than 4 percent of the labor force worked in farming, fishing, and mining. These differences in socio-economic conditions are but two of the many that starkly distinguish the people of 1901 from those of 1989. Wouldn't it be strange if people so differently situated, even without subscribing to different views concerning the desirable scope of government, should just happen to get 30 cents of additional government spending every time their personal incomes rose by

a dollar? Very strange indeed. If such constancy were found to have been the case, wouldn't the analyst be on firmer ground to interpret it as a coincidence, a parametric peculiarity, rather than the manifestation of a politico-economic law? After all, the meaning of 30 cents of additional government spending—the precise collection of goods and services associated with it—was dramatically different in 1901 and 1989.

Further, given that people's behavior depends on their ideas and that people learn from their experiences, it is extremely unlikely that an aggregative "behavioral" relation between a more or less inaccurate index of government activity and any of the usual "explanatory" variables would have remained invariant over nearly a century of tumultuous experience—wars, depressions, deflations, labor upheavals, inflations, energy crises, environmental panics, and so forth (contra Becker [1985, p. 332], who postulates a similar sort of constancy, and Peltzman [1985], who claims to have confirmed a related political stability econometrically). Can we really believe that none of these great events budged people's commitment to, or acquiescence in, spending 30 cents out of every additional dollar of personal income on government? Even regarding much shorter periods, similar doubts may be raised. Can anyone really believe, for example, that the structure of politico-economic behavioral relations did not change in the United States between 1929 and 1933?

We might well take seriously the conclusion reached by Assar Lindbeck (1985, pp. 325–26): "there is no compelling reason to model a process of an expansion of public spending [or the growth of government in other dimensions] as a series of static equilibria positions at different values of a set of exogenous variables, or even as a dynamic sequence of equilibria." We are dealing with "a disequilibrium process, the *speed* of which is determined by characteristics of political competition."

A final caveat, noted by Johan Myhrman (1985, p. 279), pertains to the example itself: "we have to avoid the temptation that many have fallen for and that is to conclude that rising income is the *cause* of the growth of government." Temporal association, no matter how close, does not establish a causal relation in any event.

Proposition 8

Which particular persons compose or influence the government

doesn't matter. Only broad socio-economic changes and the relative strengths of interest groups need be considered.

In analyzing the operation of the market system, economists are accustomed to ignoring the personal identities of the actors; and usually they are justified in doing so. We can probably understand the demand for and supply of potatoes well enough without naming consumer Jones as a demander and farmer Smith as a supplier. In markets with many small demanders and suppliers, no one in particular has any perceptible influence over the prevailing price or the volume of sales. So nothing is gained by worrying about specific people.

When economic methodology has been carried over to the analysis of political, governmental, and legal matters, the nameless quality of the analysis also has been carried over. Hence, public choice scholars speak of voters, legislators, bureaucrats, and others only as anonymous members of categories of actors. The theory is supposed to apply regardless of which particular person occupies a theoretical category. The theory is supposed to be—indeed one of its imagined glories is that it is—general in the sense of abstract. (Like physics, you see: no one cares *which* uranium atom we work with.) For some analytical purposes, this approach may serve satisfactorily, but it has limits well short of its pretensions.

One fact that should give pause to the analysts is that the political actors themselves certainly seem to have acted as if particular personalities mattered to them. Legions of Roosevelt haters seethed with animosity toward "that man"—he is said to have agitated them so mightily that they could not stand even the sound of his name! Would they have hated any other democratic president as much and acted the same if, say Al Smith had been elected in 1932? Not likely. Smith himself served as an officer of the leading Roosevelt-haters' group, the Liberty League (Leuchtenburg 1963, p. 92). Would nothing have changed had someone other than Woodrow Wilson been president during and immediately after World War I? Would the events of the 1980s have unfolded without essential difference if, say, Howard Baker had been president instead of Ronald Reagan? In the mid-1930s, when the Supreme Court was more or less evenly divided between those eager to affirm and those eager to deny the constitutionality of major New Deal programs, did nothing of substance depend on the personal character of Justice Owen J. Roberts, the famous "swing man"?

If merely raising these questions does not indicate obvious answers to them, then it must at least create serious doubts about political explanations devoid of personalities. To most historians, the significance of particular persons in determining the course of political history seems manifest. Politics is not, in this regard, like economics. (Maybe economics [in reality] is not always like economics [in the models] either.) In politics one person can make a difference—not that very many can or do, but the potential exists when the right person and the right occasion conjoin. To understand the growth of government, which is obviously the outcome of a political process, we may need to attend to the roles played by particular actors at critical junctures.

Proposition 9

In studying the growth of government, econometric analysis is superior to historical analysis.

The idea that econometrics trumps history seems quite warranted if one accepts Proposition 7 (invariant structural model) and Proposition 8 (personalities are irrelevant). I have already criticized those propositions, but additional objections may be raised.

One problem has to do with the distinction between the creation of a new government power and its exercise, say, by means of government spending or employment. In the United States, authorization must precede the appropriation of public funds. Often certain political events prompt the creation of new authority, but a long time may pass before much money is spent under that authority.

Consider, for example, the Social Security system created in 1935. Clearly the program reflected the unique configuration of socio-economic and political conditions in the mid-1980s (Weaver 1983). For the next 20 years it remained a minor element in federal spending; as late as 1955, only $4.3 billion was spent for Social Security (OASI) transfers to the aged and to eligible survivors (U.S. Office of Management and Budget 1989, p. 189). It is estimated that in 1990 these types of transfers will reach about $218 billion, thereby accounting for a large share of the increase in federal spending over the past 35 years—a period when OASI payments grew from about 6 percent to about 16 percent of all federal spending (U.S. Office of Management and

Budget 1989, p. 232; note that these data do not include other Social Security transfers, authorized later, such as disability payments or Medicare).

Of course, the increase in OASI transfers during 1955–1990 reflects the unfolding of political events during those years, as members of Congress catered to a segment of the electorate by expanding the scope of eligibility and increasing the allowable amount of payment per eligible recipient. But one who tracks the yearly pulling and hauling of events that resulted in changing amounts of aggregate spending, as the econometrician does in an abstract way, is attending to only one aspect of the growth of government, and it is a consequential or derivative rather than a fundamental aspect. The increase in Social Security transfers during each year of the 1960s, for example, resulted not simply from the playing out of the politics of the 1960s. It was also a lagged effect of the events and political actions of the 1930s. The increased OASI payments in the 1960s could not have occurred without a Social Security system in place, and that system owed its existence to much earlier events and actions. As Richard Rose (1984, p. 21) has remarked, the growth of government taxing and spending "is not so much a function of new laws as it is a consequence of the continuance of old laws."

An even more compelling example is the veterans' program. As recently described by Julie Johnson (*New York Times*, December 13, 1987),

> The V.A. serves 27 million veterans and 53 million dependents and survivors, more than a third of the population. It is the largest independent agency in the Federal bureaucracy, with an annual budget of $27 billion and more than 240,000 employees. It operates one of the largest health care systems in the world, and the number of patients it treats is expected to skyrocket as more World War II veterans age; it administers one of the largest home loan guarantee programs in the Federal Government, having guaranteed some $263 billion in mortgage loans since 1944; and it has helped 18 million veterans go to college or get job training.

Here is a welfare state in itself. Again, one can ascertain that spending for the veterans' programs grew in connection with an ongoing political process during the past 45 years. But no one can really understand how this gargantuan complex of

government activities emerged unless one understands how the G.I. Bill of 1944 gained enactment: 12 million people, most of them draftees, were serving in the armed forces, and an election was coming up (Ross 1969; Higgs 1987a, p. 229). Once the institutional apparatus of the VA had been established, its vast potential to serve as a single-agency welfare state had only to be exploited at the margin as events and political conditions permitted. To use an analogy from cosmology, none of this evolution could have occurred without the original Big Bang.

Econometric models of the growth of government typically relate the explicandum to contemporaneous events alone or to events a year or two earlier. Such models are ill suited to capture the distinction between what is essential or fundamental (creation of new powers expanding the scope of government action) and what is consequential or derivative (increased government spending within an unchanged scope of government powers). As a rule, the econometrician "falsely assumes that the causes of government growth represent current choice rather than the inertia force of established commitments" (Rose 1983, p. 6). In modern democratic political systems, it is much easier to start a program than to terminate one; just keeping programs from growing, far from killing them, requires political courage and commitment of a sort rarely evinced.

Other problems arise because, by admitting only one aspect of reality (the quantifiable), econometric models of the growth of government, in effect, throw away information. Because no number can measure a politician's personality and its political import, the econometrician has no way to appreciate the difference in the potential for the growth of government between, say, a government headed by Franklin Roosevelt and a government (that might have been) headed by Herbert Hoover in 1933. Except as the measured variables allow, the econometrician cannot appreciate any difference between, say, 1929 and 1933. A year is a year is a year; a variable is a variable is a variable; and real people with all their quirks and fickleness don't exist at all. This quantitative homogenization squeezes all the life, blots all the color, freezes all the feeling out of human history in general and political strife in particular.

By characterizing only abstract aggregative variables linked by rigid functional relations, an econometric model of the growth of government implicitly affirms that people had *no real choice*. They could not have done otherwise but to act in accordance with fixed formulas; the only deviations allowed are stochastic,

as if those who deviate from the formulaic central tendency are lunatics acting randomly. This way of representing human history is not just a simplification; it is a basic distortion, a denial of the very thing the Austrians call human action (Mises 1957; 1966; 1978; Rothbard 1979; Buchanan 1979, pp. 39–63).

Proposition 10

The process generating the growth of government is internal to each country; each one's relations with the rest of the world can be ignored.

Virtually all existing economic models of the growth of government are models of a behaviorally closed economy, that is, an economy operating and developing independently vis-à-vis the rest of the world. Of course, external events may indirectly enter the explanatory framework. For example, the gross national product may increase because net exports increase, and the rise in GNP may be assumed to increase the public's demand for government services. But in this model an identical effect would have resulted from an increase in GNP occasioned by a rise in domestic spending; there is nothing distinctive about external demand as such.

"Rigorous" analysts usually ignore genuinely external causes of the growth of government in part because their models exclude any role for changes in economic or political ideas, which are readily "imported" and "exported." So, analysts of the twentieth-century growth of government in the United States suppose that the same politico-economic structure persisted throughout the past 90 years even though, roughly speaking, (a) traditional balanced-budget fiscal doctrines held sway for the first half of the period but Keynesian macroeconomic theory and chronic-deficit politics prevailed during the second half, (b) traditional "isolationist" doctrines had great influence on foreign policy during the first half of the period but virtually no influence during the second half, and (c) peacetime defense spending usually amounted to about 1 percent or less of GNP during the first half but more than 7 percent of GNP during the second half (Higgs 1988b, pp. 18–22).

Increased defense spending by itself accounts for over 35 percent (4.4 percentage points) of the increase in federal spending relative to GNP (12.4 percentage points) between fiscal year 1940 and 1988 (U.S. Office of Management and Budget

1989, pp. 46, 51). Can anyone seriously contend that this increase had nothing to do with external military and political events and hence with the ideas Americans held about international communism and the threats they came to believe it posed for their well-being after World War II? Readily available facts refute such a supposition (Higgs 1988b, pp. 11–19).

Readily available facts also attest to the power of ideas imported from abroad in various other realms of thought. Information about social and economic developments in the European welfare states, for example, has heavily influenced the political thinking and practices of Americans ever since the late nineteenth century with regard to income taxation, central banking, nationalized retirement and health insurance, public housing, and countless other matters. Keynes's ideas alone had an immense influence on macroeconomic policy in the quarter-century after World War II, an influence that is still alive today (Stein 1969; 1984; Buchanan and Wagner 1977), not to mention Keynes's and other British influences in establishing postwar institutions for the international financial system, including the International Monetary Fund and the World Bank. From the late nineteenth to the late twentieth century, western European thinking exerted a magnetic attraction pulling American thinking toward collectivism. To ignore this powerful external influence on the course of events is to abstract from an essential aspect of the process whereby government grew in the United States.

Proposition 11

Putative "public demand," especially as expressed by voting, drives the political-governmental system. Elected officials (and hence the bureaucracy subordinate to them) may be viewed as perfect agents of the electorate.

Adherence to this proposition characterizes the bulk of all analysis dealing with the growth of government in the West, regardless of analytical tradition or ideological leaning. (Specific citations seem unnecessary. See virtually any issue of *Public Choice* as well as the widely cited articles by Meltzer and Richard [1978; 1981; 1983], Peltzman [1980; 1984; 1985], Becker [1983; 1985], and Borcherding [1977; 1985]. The most recent and most extreme contribution along these lines is Wittman [1989].) This approach displays a professional deformity related to the economist's basic tool of analysis, the theory of markets

with its component theories of demand and supply. Applying their familiar tools to the analysis of politics, economists immediately look for analogues. What is the "good" being traded? Who is the "supplier" and who the "demander"? What is the "price"? The answers seem obvious. Public policy is the good; the elected legislators are the suppliers; the voters are the demanders; votes are the currency in terms of which political business is being transacted. Thus voters "buy" the desired policies by spending their votes; the legislators "sell" policies in exchange for the votes electing them to office. (See Benson and Engen [1988] for an especially straightforward application of such analogues.) Economists view consumer demand in ordinary markets as ultimately decisive for the allocation of resources; hence consumer "sovereignty," a political metaphor imported into economics. Applying their familiar apparatus of thought to politics, economists tend to think that ultimately the political system gives the voters what they want. Therefore, if government grows, it does so because that is what the people want (Musgrave 1985, p. 306; Stiglitz 1989, p. 69). Demand creates its own supply. Voting is ultimately all that matters for determining the growth of government. As Dennis Mueller (1987, p. 142) has observed, "In the public choice literature the state often appears as simply a voting rule that transforms individual preferences into political outcomes."

It is easy—and probably healthy—to mock this view of the political process. Joseph Schumpeter (1954, p. 429) called it "the perfect example of a nursery tale." There are, after all, many significant differences between ordinary markets and the "political market" (Higgs 1987a, pp. 14–15). Even Benson and Engen (1988, pp. 733, 741), adherents of this model, describe their output variable as "somewhat artificial and very restrictive" and their price variable as "clearly an incomplete proxy."

Not least of the problems is that voters rarely vote directly for or against policies. Rather, they vote for candidates for office. Winning candidates subsequently enact a multitude of policies, many of which neither the voters nor their representatives had thought about at the time of the campaign. It is not enough that voters know something about the general ideological reputation of office seeks (à la Dougan and Munger 1989); the devil is in the details. Besides, notwithstanding the elaborate theoretical and econometric attempts to show that politicians are perfect agents (Becker 1983; 1985; Peltzman 1984; 1985; Wittman 1989), we can easily demonstrate that political representatives frequently

act in ways that must necessarily run counter to the dominant preference of their constituents. We see this in the U.S. Senate, for instance, every time the two senators who represent the same state split their votes—and such splitting occurs commonly (Higgs 1989d). Remarkably, and quite damningly for models that presume tight linkages between voters and their elected representatives, many of the vote-splitting senators are reelected time and again. So elections are reliable neither as an *ex ante* nor as an *ex post* check on the substantial autonomy of officeholders.

Perhaps the most important case in which legislators and other (including many *non*elected) officials act independently of control by the voters concerns political action during crises. How many voters could possibly have known in the election of 1940 what the elected federal officials would do during their upcoming terms in office, which were to include, depending on the office, some or all of the years of World War II? How many voters in the election of 1972 had any idea how they wished their representatives to deal with the "energy crisis" of 1973–1974, or even that such a crisis loomed? Who anticipated that George Bush would send U.S. troops into Saudi Arabia to oppose Iraq? During crises, government officials, lacking any reliable means for discovering dominant constituent preferences, necessarily exercise more or less discretionary power. But they do act, often in dramatically important ways.

Once those actions were taken, in a world of path-dependent historical processes the course of events was changed irrevocably (Brennan and Buchanan 1985, pp. 16, 74; Higgs 1987a, pp. 30–33, 57–74). (Ratcheting growth of government spending associated with participation in global wars is confirmed statistically by Rasier and Thompson [1985], using Box-Tiao tests.) If U.S. voters actually had preferred that the nation not go to war, it was too late to rectify the legislators' mistake in the election of 1942—the fat was already in the fire.

Further, political actions are usually followed by carefully crafted rationalizations, excuses, and propaganda emanating from the politicians and their friends who initiated or supported the actions. (How often do politicians admit policy mistakes?) In this way political preferences, public opinion, even the dominant ideology may be altered, becoming more congruent with what has been done and thereby reversing the direction of causality usually assumed in political models. (On ideology and policy as interactive, see Higgs 1985; 1987a, pp. 67–74; 1989c, pp. 96–98.)

Proposition 12

A corollary of Proposition 11: The judicial branch of government can be ignored.

If analytical political economists have greatly *over*stated the role of legislators (too often viewed as perfect agents of voters) in the growth of government, they have to an even greater degree *under*stated the role of judges, at least in U.S. history, where legislation must withstand judicial review of its constitutionality to survive and have ongoing effect. The public choice and related analytical literatures contain almost nothing empirically concrete about the judiciary's role in the growth of American government, although the literature of law and economics offers some useful insights (several chapters in the volume edited by Gwartney and Wagner [1988], as well as Hughes [1977], are pertinent) and the literature on constitutional political economy offers suggestive insights, albeit at a very abstract, quasi-philosophical level (e.g., Friedrich Hayek's *Law, Legislation and Liberty* or various works by James Buchanan and his collaborators). The index of the recent, admirably comprehensive survey of public choice by Dennis Mueller (1989) has no entry for judges or judiciary. Mueller mentions but does not dwell on an oft-cited paper by William Landes and Richard Posner (1975), enticingly titled "The Independent Judiciary in an Interest-Group Perspective." Unfortunately, the thesis of this paper—legislators tolerate an independent judiciary only to augment the longevity and hence enhance the value of the legislative products they sell—is hard to take seriously, at least for anyone who has spent much time studying the constitutional history of the United States. (Cogent critics of the Landes-Posner paper include Buchanan [1975], Samuels [1975], and North [1981, pp. 56–57].)

The U.S. Supreme Court—nine persons appointed for life, answerable to no electorate, legislature, or interest group—played a key role in the growth of American government over the past century. (The relevant legal and historical literature is enormous. For selected references, see the footnotes and bibliography of Higgs [1987a].) Evidently, no one wants to deny this fact, but many analysts seem content to ignore it. The reason, one suspects, is that it doesn't fit into the profession's standard set of puzzles or lend itself to solution by the usual methods of analysis. It requires that one pay attention to particular autonomous individuals with specific values and

beliefs. As North (1981, pp. 56–57) has observed, the behavior of the independent judiciary presents us with "the clearest instance of the dominant role of ideology." That fact makes most economists either run for cover or take up arms in visceral opposition.

Proposition 13

Ideology doesn't matter.

Indeed, the idea that people act on the basis of ideology strikes most mainstream economists, including many of those who have written about the growth of government (e.g., Becker and Stigler 1977; Peltzman 1984; 1985), as utterly anathematic. They flee from it as a vampire flees from holy water—perhaps for the same reason, too. Surprisingly, in view of his leading position in the Chicago School, Gary Becker (1985, p. 345) once wrote that "undoubtedly, the decline in laissez faire ideology contributed to the growth of government." He immediately backed away, however, issuing the obiter dictum: "but most of the decline was probably *induced* by the arguments and propaganda of the many groups seeking public largess."

More than 10 years ago, when a few neoclassical economists began to toy with the idea that ideologically motivated behavior might be the cause of certain apparent anomalies of public choice theory (e.g., why people vote), the economic literature took an unfortunate turn. Economists, political scientists, and public choice analysts began to produce an outpouring of problematic econometric studies of roll-call voting in the U.S. Congress. (Recent contributions, with many references to the earlier literature, include Nelson and Silberberg 1987; Lott 1987; 1988; McArthur and Marks 1988; Davis and Porter 1989; Dougan and Munger 1989; Lott and Reed 1989; Richardson and Munger 1990; Zupan 1990; Nollen and Iglarsh 1990.) Roll-call voting was a poor choice of observations for testing whether ideology matters—it was seized upon because it produces numbers that can be cranked through the econometric mill—though even in these studies it seems fairly clear that ideology does matter insofar as the indexes used to measure it mean what they are supposed to mean.

Elsewhere, I have tried to clarify the concept of ideology, to show how ideology can be understood as consistent with rather than the antithesis of rational action, and to document how

ideology affected and in turn was affected by the growth of American government over the past century (Higgs 1983; 1985; 1987a; 1989c). I shall not repeat everything I have written on this subject, but one point requires restatement and emphasis.

The existing thrust of the economic literature, the quest to determine econometrically whether ideology mattered in determining a certain set of political actions, seeks to answer a non-question. Of course it matters. *It always matters*, because people cannot even think about political questions, much less undertake political actions, without an ideology (Siegenthaler 1989; Higgs 1989a; 1989c, pp. 98–100).

How can I make such a claim? Economists are supposed to believe, or at least to postulate for analytical purposes, that people pursue their "economic interests." Open any mainstream text on economic theory and check the arguments of the utility function: sure enough, they consist of amounts of "goods" consumed by the individual; nothing about ideas here, just pounds of potatoes, bottles of beer, trips to the shore, hours of leisure, and so forth. In the words of Gary Becker (1983, p. 374, emphasis added), "the utility of each person . . . depends *only* on own commodities." To consume more of these things is, the mainstream economist supposes, precisely what is meant when one speaks of people's acting in their self-interest. In this context, to speak of a person's economic or material interest would be redundant, because the theory recognizes no other kind. Thus, Thomas Borcherding (1985, p. 378, emphasis added) declares it "an open question whether after the *obvious elements of self-interest* are separated from political action, scope for ideology remains."

The most charitable thing I can say about this view is that it is simply wrong. No one ever explained why it is wrong more clearly and succinctly than Mises (1957, pp. 140, 142, emphasis added):

> In the world of reality, life, and human action there is no such thing as interests independent of ideas, preceding them temporally and logically. What a man *considers* his interest is the result of his ideas. . . . Free men do not act in accordance with their interests. They act in accordance with what they *believe* furthers their interests.

Nor are the Austrians alone in appreciating the dependence of interest on belief. Jon Elster (1989, p. 20), for example, recently

wrote: “What explains the action is the person’s desires together with his *beliefs* about the opportunities. Because beliefs can be mistaken, the distinction is not trivial.”

Ideologies are belief systems about social relations. Chief among their dimensions is the cognitive: ideologies structure and give meaning to a person’s perceptions of social life. They also place affective weight on those apperceptions, designating some things good or right, other things bad or wrong. They also point toward a justifiable political program and open up the potential for solidarity with like-minded comrades. Such solidarity serves as an important means of establishing and maintaining a social identity; it helps to determine people’s psychologically essential conceptions of who they are.

In myriad ways, the growth of government has involved collective action, a transcendence of the free-rider problem regarded by neoclassical theorists as more or less paralyzing. This transcendence reflects ideologically motivated action. It poses no great puzzle for those who understand that real people act on the basis of two equally propulsive—but inextricably intertwined—motives: to get something and to be someone (Higgs 1987b). (See also the discussions of “artifactual man” by Buchanan [1979, pp. 93–112] and “preferences for preferences” and “the role of norms” by Brennan and Buchanan [1985, pp. 68–73, 146–47]; and the discussion of self-interest and the free-rider problem by Hummel and Lavoie [1990].)

Proposition 14

Government grows in order to correct the distortions stemming from externalities.

This proposition, along with Proposition 5 and 15, lies at the heart of the theory of the growth of government usually embraced by mainstream economists (e.g., Baumol 1965; Stiglitz 1989, p. 57). The theory maintains that governments grew in a process of correcting emerging “market failures” associated with monopoly power, externalities, and public goods. As a positive theory of the growth of government the idea suffers, as already indicated, from reliance on magic: a market failure emerges—POOF!—government undertakes a program to remedy the associated deviation from the “efficient” allocation of resources. In the words of Richard Musgrave (1985, p. 287), “the assumption was that government, once advised of proper action,

will proceed to carry it out." But no account is given of (a) why either the public or specific government officials know or care about systemic efficiency and (b) even if they do know, what personal incentives they have to take the implied corrective action. In short, a black box stands between the alleged cause and its presumed effect. What actually fills the black box are the Two Big Collectivist Assumptions: government officials *know* what needs to be done to promote the public interest, and they *act* on the basis of that knowledge.

Apart from the implausibility of the theory because it has nothing to say about the personal incentives and constraints of actual decision makers, the theory does not stack up empirically. A reasonable survey of how the government has grown—that is, an accounting of what it has come to do more often and what it has undertaken now and then to do for the first time—must conclude that only a small proportion of all government activities has anything to do with externalities. One need only examine an organization chart for the government, leaf through the Federal Register, or scrutinize U.S. Statutes at Large, not to mention the detailed budget documents. Evidence of the alleged connection rarely appears. Studies that have sought to find a relation between the growth of government and proxies for growing externality problems (e.g., population density, urbanization, ratio of manufacturing to agricultural activities) have found little or nothing (Borcherding 1977, p. 53; 1985, p. 368; Mueller 1987, p. 119).

The theory of government as fixer of externalities is often quite backwards. Governments themselves compose "the prototypical sector in which decision makers do *not* take accurate account of all the costs as well as all the benefits of each activity" (Yeager 1983, p. 125). In reality, the government is more likely to cause a negative externality than to reduce one. Since the recent revelations in Eastern Europe and the Soviet Union, everyone has become aware of the vast environmental destruction wreaked by government officials there, but one need not rely on these egregious cases to establish the point. According to studies of the United States cited by James Bennett and Manuel Johnson (1980, pp. 133–34),

> federal government agencies emit huge quantities of pollutants into the water and atmosphere. The U.S. Department of Defense alone discharges over 335 million gallons of human waste per day, of which

> 30 percent received secondary treatment or less. The Tennessee Valley Authority (TVA) is the country's largest sulfur dioxide polluter, accounting for 38 percent of total sulfur emissions in the Southeast U.S., and its compliance record with pollution laws is only 16 percent as compared to 74 percent for all utilities nationally.

Recent press reports tell us, and government spokesmen such as Energy Secretary James Watkins admit (*Wall Street Journal*, November 27, 1989), that the government's plants for manufacturing nuclear materials have been poisoning the surrounding air, land, and water for decades while hiding behind their top-secret national security classification. The Energy Department forecasts that the future expense of cleaning up this mess will accumulate to more than $80 billion (*Wall Street Journal*, December 12, 1988). Nor are the nuclear plants the only problem of this sort. Already 87 military installations have been placed on or proposed for the Superfund list of the nation's most dangerous toxic-waste sites, and more than a hundred other military facilities may be added to the list. A "Newsday" study concluded that "the armed forces have been slow to move, have resisted state regulators' efforts to force compliance with environmental laws, and continue to violate anti-pollution laws even as officials in Washington, D.C., insist their bases are trying to be better neighbors" (*Seattle Times*, February 5, 1990).

Still, one should not leap to the conclusion that the growth of government had *nothing* to do with programs in response to emerging externality problems, although one ought to refrain from immediately labeling those perceived problems "market failures." Historically, for example, urbanization created severe externality problems in relation to the spread of contagious diseases, and the (mainly local) governments' public health programs responded to these problems in a fashion that in retrospect seems remarkably successful (Higgs 1971, pp. 67–72; 1979; Meeker 1974). Other examples also might be found, perhaps in other areas where public health and safety are at stake. The point, however, is that such examples cannot bear much weight as significant explanations of the growth of government. They do not add up empirically to a big part of the relevant record.

Proposition 15

Government grows in order to supply public goods that the public demands but the free market won't supply.

As already indicated, this proposition belongs to the class of "market failure" explanations of the growth of government. Like all such explanations, it suffers from the infirmities of the behavioral black box. Empirically, however, it seems to possess greater warrant than its cousin, the externality proposition. Although many examples of public goods are problematic—they do not actually involve goods that are totally nonrival in consumption or nonpayers who cannot be excluded—at least one important case remains, namely, national defense. Especially when one conceives of defense as the deterrence of nuclear or other widely devastating attacks against national territory, it seems to be a genuine public good, one for which the free market would make insufficient provision. Nor is the necessity of government provision affirmed only by mainstream economists. Mises himself concluded that "in a world full of unswerving aggressors and enslavers . . . isolated attempts on the part of each individual to resist are doomed to failure, [and therefore] the only workable way is to organize resistance by the government." Mises went even further, supporting conscription of people to serve in the armed forces (1966, p. 282).

As indicated above, increases in military spending over the past 50 years account for a substantial share, more than a third, of the rise of federal government spending relative to GNP. The arms industries also have become the most heavily regulated sector of the U.S. economy (Kovacic 1990). It would seem, then, that Proposition 15 has a good deal, both theoretically and empirically, to recommend it to students of the growth of government. Of course, the empirical weight that this explanation will bear needs to be kept in perspective: defense spending, for example, now amounts to only about a quarter of federal spending, less than a fifth of all government spending, less than 6 percent of GNP (U.S. Office of Management and Budget 1989, pp. 51, 364), and the defense spending shares are substantially below their levels during the 1950s and 1960s (Higgs 1988b, pp. 18–22).

Before embracing Proposition 15 fully, however, one needs to consider a rather difficult question: how much of the observed increase in the government's military activity represents a response to the public good dilemma (the free-rider problem) and how much represents self-serving exploitation of the public's

insecurities by people making little or no contribution to the maintenance of genuine national security (the free-loader problem)?

No simple answer can be given, but some things are fairly obvious. Much military activity has served the interests not of the general public but of the government itself (Hummel and Lavoie 1990). The recent invasion of Panama is an example, as was the earlier invasion of Grenada. Far from seeking a "revelation" of the public's true demand for defensive actions and the derived demand for arms production, the national security establishment has engaged in a series of mendacious efforts to scare the public and stampede the taxpayers into supporting higher levels of military spending—just recall all the weapons "gaps" announced over the past 40 years, most of which were revealed in due course to be overblown or completely bogus (Higgs 1988b, pp. 11–19). Much military spending has done nothing to promote national security, for example, lavish officers' clubs and golf courses, cushy military retirement systems, and maintenance of obsolete facilities such as Fort Monroe, the fort with a moat. Members of Congress have twisted the defense program again and again to aid their quest for reelection (Higgs 1988a; 1989b; 1990a; and many of the chapters in the volume edited by Higgs [1990b]). Anyone who reads the newspapers, not to mention the literature on military procurement, knows that the big defense contractors, in league with their friends at the Pentagon and in Congress, have siphoned many billions of dollars in rents out of the public treasury during the past half-century, never more than during the bonanza of the 1980s (Stubbing 1985; Fitzgerald 1989).

In sum, it is obvious that the growth of government via increased military activities represents far more than a straightforward effort to achieve a solution to the public good problem. To a large extent, it represents a poorly disguised form of redistributive politics.

Proposition 16

Government grows in order to reduce the transaction costs inherent in a complex modern economy, thereby facilitating a high degree of division of labor and enhancing productivity.

I call this proposition, which is a more sophisticated variant of the Modernization Hypothesis, the theory of the Washington

School. Its prime proponent is Douglass C. North, long of the University of Washington (Seattle) and more recently of Washington University (St. Louis). North draws from theoretical work on measurement and transaction costs by Steven N. S. Cheung (formerly of the University of Washington) and Yoram Barzel (still there). Collaborating with North on empirical work connected with the theory has been John Wallis, who earned his Ph.D. at the University of Washington. The thesis began to take shape more than 10 years ago and appeared in North's *Structure and Change in Economic History* (1981, especially pp. 187–98 on the United States). Later papers (North and Wallis 1982; North 1985; Wallis and North 1986) clarified and extended the argument and presented empirical materials in support of it.

An early summary conveys the essence of the argument (North and Wallis 1982, p. 336):

> The wedding of science and technology in the late nineteenth century made possible a technology of production whose potential was only realizable with an enormous increase in the resources devoted to political and economic organization—the transactions sector of the economy. A substantial part of this increase has occurred in the market and through voluntary organization, and a substantial share has also been undertaken by government.

The government's part evidently has outpaced the market's part; hence the growth of government.

North's argument traces virtually everything back to a single aspect of societal modernization, the increase in specialization. That increase caused the rise in productivity, hence economic growth; it necessitated more "contracts across time and space and with unknown second parties," hence a demand for bigger government to supply "effective third party enforcement" (North 1989, p. 113); it fostered ideological divisions, hence the proliferation of politicized interest groups (North 1981, pp. 51, 196–98; 1985); it cheapened tax collection and hence shifted outward the supply schedule of government activities. (Becker [1985, p. 345] tells a similar tale.)

Although Wallis and North's empirical exercises in creative national income accounting are not compelling, partly because the empirical categories just don't match the theoretical counterparts (for some details, see Davis [1986]), there may be something to the Washington thesis. North continually

emphasizes that government has grown throughout the Western world and elsewhere over the past century; and, by conventional measures, government is bigger in the more developed countries than in the less developed. A good theory, it seems, ought to account for the apparently pervasive association of economic progress and growth of government in the West. Because rising specialization marks every case, it would appear to resolve the issue. Perhaps to some extent it does, but problems remain.

One difficulty is that the theory is *too* general. Although it seems to match the long-term trend in every Western country—and many others as well—it cannot account for the marked irregularities that have appeared in most cases. The specific shape of the historical profile must be explained by auxiliary theories or in an *ad hoc* manner. The abrupt growth of government that occurred in the United States during the world wars and the Great Depression, for instance, would seem to have little to do, in any immediate way, with changes in the degree of societal specialization (Higgs 1987a, pp. 123–236). Similar questions can be raised about the precise paths followed by other countries.

Another problem: the theory is rather vague, and the attempts to give it empirical substance only heighten one's misgivings in this regard. The concepts of "transaction cost" and "transaction sector" have been stretched to the breaking point. The distinction between "transaction" and "production transformation," though central to the thesis, is blurry at best (Davis 1986).

Further, the explanation of why remote transactions and other features of modern economic life could not be accommodated in the market, an explanation that appeals to "moral hazard, adverse selection, and the demand for public goods" (North 1985, p. 392), is offered almost in passing and needs a much more extensive argument before it can become persuasive. (See Lindbeck [1985, pp. 315–16] for trenchant criticism with regard to the alleged roles of adverse selection and moral hazard.) Myhrman (1985, p. 277) argues that while North's thesis may explain why governments got bigger during the early stages of economic growth, it does not account for why the growth of government has continued to exceed the growth of the private sector. (Davis [1986, p. 158] makes a similar point.)

Finally, stepping back from the theory and viewing it as a whole, one may get an eerie feeling of unreality. Many of us are convinced that, all things considered, modern governments—the

American and just about all the others—hugely *increase* the costs of transacting mutually beneficial exchanges in comparison with what those costs would be in a minimal or night-watchman state. In view of all the taxes, all the direct, highly politicized government participation in markets, all the regulations, all the laws infringing economic liberties on every side, how can anyone suppose that *on balance* the growth of government has reduced transaction costs and promoted economic growth? Perhaps cause and effect have been reversed in the Washington Thesis; perhaps only economically progressive societies can *afford* the deadweight costs of ever bigger governments.

Proposition 17

Government is nothing but an engine of redistribution.

Many of the most cited contributions to the literature make this assumption their point of departure (Meltzer and Richard 1978; 1981; 1983; Peltzman 1980; 1985; Becker 1983; 1985; Benson and Engen 1988; and others cited by Mueller 1987, pp. 122–28). Evidently analysts adopt the assumption because it facilitates the construction of tractable formal models. To simplify the analysis further, investigators usually assume that the redistribution runs from richer to poorer. There is something to be said for simple models, but in this case it is not much.

These models lack even the elementary saving grace of positivism: they do not generate predictions that fit the facts. (For criticism, see Higgs [1987a, pp. 12–15] and Mueller [1987, pp. 126–28].) Peltzman, in his influential 1980 article, claims to present empirical confirmation, but the claims are too ill-founded to be acceptable. Indeed, the econometric methods employed in that article—presumptuous proxy variables, *ad hoc* substitutions for "missing" data, unwarranted specification switches, *inter alia* —fill a chamber of horrors sufficient to discredit the entire undertaking. The methods employed in Peltzman's 1985 article warrant a similar evaluation.

More fundamentally, assuming that government just redistributes wealth simply isn't true, isn't even an approximation to the truth. It's hard for the hard-core anarchists to swallow, but governments in the West do provide some desired services. Deterrence of foreign aggression, a degree of local protection of life and property, a body of property law and a system of courts for resolving civil disputes, a public health

system, public water supplies and sewage disposal, the roads and the traffic rules—all seem to qualify as more or less public goods and as goods genuinely demanded by the overwhelming majority of the public. Of course, even these goods are supplied in ways that one might lodge many complaints against. But the point remains: they are not *just* means of redistribution, even though their financing, production, and distribution have many undeniable redistributive aspects.

National defense, perhaps the most important example, surely receives much political impetus from those who privately appropriate benefits from its provision (Higgs 1990a; Lee 1990; and other chapters in the volume edited by Higgs [1990b]). Still, not many citizens favor unilateral disarmament. Most people want the government to maintain a military establishment adequate to deter foreign aggression. (The evidence of public opinion polls and elections indicates that a substantial number also support military aggression against others, although one might apologize for at least some of those who maintain this position on the grounds that they have been duped to believe the aggression is actually defensive.) In any event, they do not support just giving money to the owners and employees of General Dynamics (GD) in the same way that they support Aid to Families with Dependent Children. Most of them want the military potency produced by the Trident submarines, M-1 tanks, and F-16 fighter planes; only a few of them care whether GD or somebody else supplies the weapons. For the general public, GD's rents are incidental, though of course they are far from incidental in the actual political process by which GD becomes the supplier (Goodwin 1985).

Proposition 18

The modern welfare state merely "filled the vacuum" left by the deterioration of private institutions.

This proposition is still another variant of the Modernization Hypothesis. Modern economic development, it is said, caused socio-economic transformations (e.g., urbanization, greater personal mobility, increased survival of the aged) that sapped the vitality of private institutions. Families, churches, and voluntary associations became less and less able to accomplish their traditional tasks. Hence, government increasingly substituted for them "as the principal institution assisting individuals in time of

economic or social misfortune" (Fuchs 1979, p. 13). Government had to hold the "safety net" when others no longer could or no longer would.

Certainly government activities in immense profusion—countless programs ranging from sex education to mental health care to the federal Foster Grandparents Program—can be viewed as illustrating this thesis. Perhaps the proposition contains more than a grain of truth. But as an explanation of the growth of government, the proposition by itself does not carry us far, and even that much is partly illusory.

A serious defect of the proposition is that once the alleged process of "vacuum filling" had got under way, if not before, the direction of causality must have run in both directions. Yes, perhaps certain socio-economic changes did, say, promote the breakdown of individual responsibility among family members. But the availability of governmentally provided substitute services lowered the cost of irresponsible private actions and hence increased their frequency. Government did not simply substitute for responsible private efforts; it also crowded them out. Without narrowing the focus to a specific activity, not much more can be said. But the crowding-out theory itself is logically unimpeachable, and those with normal eyesight and a little knowledge of history can see evidence of such crowding out on all sides. (See Wagner [1989] for an extended discussion and references.)

Of course, Proposition 18, as an explanation of the growth of government, presents us with yet another case of the black box. When we fill the box in a theoretically and empirically warranted manner, the nature of the explanation changes completely. Question: How do the kinds of people who need a government safety net—presumably those who are destitute, physically or mentally handicapped, aged and infirm, or otherwise in dire straits—exert enough political pressure to elicit the creation of a safety net by those who control the political process? Short answer: They don't. But notice the millions of middle-class administrators, school teachers, social workers, lawyers, urban planners, doctors, nurses, professional and technical specialists, and all the others who act as well paid providers and facilitators of governmentally funded services for the helpless, and then the politics of the welfare state becomes a lot plainer. Also plain is that the rise of the welfare state involved far more than unvarnished altruism (Weaver 1978; Higgs 1987a, pp. 248–51).

Not surprisingly, it involved a great deal of redistributive politics: redistribution not so much from the fortunate to the unfortunate as from the taxpayers to the bureaucrats, providers, and hangers-on. As Lindbeck (1985, p. 327) puts it, "the original 'welfare state,' designed mainly to provide basic economic security, has gradually developed into a free-for-all competition for favors from the state, with 'every politician trying to buy votes from everybody.'"

Conclusion

In the literature on the growth of government, much that is misguided can be seen as unwarranted reduction. This in turn can be seen as arising almost inevitably from the positivist pretensions that underlie modern social science in general and modern mainstream economics in particular.

The drive toward reduction takes several forms. First, analysts strive to reduce empirical reality to *one measure* of the explicandum or dependent variable. Second, they strive to reduce the theory to *one independent variable* that can carry the entire explanatory load. Third, they strive to reduce historical and geographical diversity so that *one general explanation* applies to all times and places. In sum, the goal appears to be an equation of the form $G = f(X)$, where G is one simple measure of the size of government, X is one simple explanatory variable, and f is a fixed-coefficients functional relation connecting the values of X and G by what amounts to a law of history.

This reductive quest is nothing more than a species of scientism, the attempt to conduct the study of man with the same methods employed to study nonhuman nature. Research in political economy is being carried out as if it were research in physics or chemistry. But people are not atoms; the political economy is not a molecule; and the growth of government is not analogous to the natural growth processes analyzed in biochemistry. The prevailing reductivism, which is both positivist and historicist, founders on the reality that people are purposive, choosing actors whose actions are shaped by their (changeable) beliefs and values and whose personal and societal histories are marked by contingencies with significant consequences, including path dependencies (Mises 1957; 1966; 1978; Rothbard 1979; Higgs 1987a).

Strange to say, one can describe a large part of the recent research on the growth of government as attempts by researchers

who neither know nor care much about history to discover laws of history. Small wonder that black boxes litter the field. But here, as in other areas of serious empirical research, there is no good substitute for knowing, quite literally, what we are talking about. One must, then, study history; one must comprehend the great variety of acting and interacting individuals whose actions compose our subject and the diverse and changing institutions that condition the actors' choices.

To this recommendation, a positivist might respond: If there are no laws of history to be discovered, what is the point of studying history? The answer is that there exists much valuable knowledge in the gap that separates unvariable law and utter chaos. Although no laws of history exist—indeed, as Mises (1957, p. 212) explained, "the notion of a law of historical change is self-contradictory"—the study of history can reveal patterns and probable relations. Mises (1957, pp. 264–84) called the search for this kind of understanding "thymology." He maintained that

> what thymology achieves is the elaboration of a catalogue of human traits. It can moreover establish the fact that certain traits appeared in the past as a rule in connection with certain other traits. But it can never know in advance with what weight the various factors will be operative in a definite future event.

So, even though one cannot rely on historical understanding to be apodictic, as one can rely on the pure logic of choice, which the Austrians call economic theory, one must, both in everyday life and in empirical research, constantly place bets. Although one cannot be certain that the relations on which one places the bets will (or did in the past) prevail, one confidently expects to come closer to the truth by taking thymological understanding into account than by closing one's eyes and throwing darts at the dartboard of all possibilities.

It is no accident that many of the leading lights of Austrian economics—Mises, Hayek, Rothbard—have taken historical understanding seriously and devoted much effort to historical research. Mises (1957, p. 293) went so far as to describe historical understanding as not only essential for practical action but worthwhile in another sense as well. "It opens the mind toward an understanding of human nature and destiny. It increases wisdom. It is the very essence of that much

misinterpreted concept, a liberal education."

In view of the wide extent to which the problematic propositions criticized above have been accepted by contributors to the recent literature on the growth of government, a Misesian might well reach the following conclusion. Many of the analysts thought they were formulating and testing economic theory, but in the Austrian sense they were not. Few of them thought they were writing economic history, but in the Austrian sense they were. Unfortunately, much of this inadvertently written economic history has been deeply flawed.

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An Evolutionary Contractarian View of Primitive Law: The Institutions and Incentives Arising Under Customary Indian Law

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The European conquest and absorption of native American Indian groups obviously produced tremendous changes in the way Indians live and interact with one another. One very important source of change in Indian life was the changes in the rules and institutions of Indian law. Few Indian groups had any sort of strong central legal authority before Europeans began to exert various types of influence on the evolution of Indian law. This does not mean that there was no law, however. Evolving unwritten social contracts among Indian groups had produced well-developed legal systems based on customary rules of conduct which emphasized individual rights and private property. Adjudication procedures were in place to solve disputes without violence. No state-like centralized authority applied sanctions, but sanctions were applied, primarily in the form of economic restitution. These sanctions were enforceable because of reciprocal arrangements between individuals for recognition of law, support of judgments, and community wide ostracism.[1] Such characteristics of primitive American Indian legal systems have been discovered through extensive study by anthropologists.

What can an economist add to the understanding of Indian law that has not already been said by anthropologists? Economic theory predicts human behavior by considering how individuals react to incentives and constraints in the context of rational choice models. In contrast, most anthropologists adopt an "empirical" approach to law: behavior is not predicted from a theoretical model, but rather observation presumably allows the

anthropologist to discern behavior (Hoebel 1954, p. 5). Thus, the following examination will emphasize the institutions and incentives which influence the provision of law and its enforcement, in order to see if anthropologists' observations support economic theory's predictions. In particular, predictions, based on economic theory, will be made as to (1) how a legal system could induce recognition of rules of conduct without strong centralized authority, (2) how institutions and procedures for adjudication and legal change could be voluntarily established, (3) and why a non-centralized legal system dominated by voluntarily established institutions and procedures should emphasize individual rights and private property. In other words, predictions about the characteristics of the implicit evolving social contract which underlies a customary law system will be made based on economic theory, so that a *generalizable characterization* of such legal systems can be developed. Examples of Indian legal systems as they have been reported by anthropologists will then be examined in light of the theoretical predictions.[2]

Customary Law as a Social Contract

If law is simply represented by any system of rules, as some have suggested,[3] then "morality" and law would appear to be synonymous. However, Lon Fuller (1964, p. 30) contended that "law," when more appropriately "viewed as a direction of purposive human effort, consists in the enterprise of subjecting human conduct to the governance of rules."[4] Law and morality are not synonymous. Indeed, law as a purposive human effort can facilitate efficiency-enhancing interaction by reducing uncertainty, as explained below, and therefore it consists of both rules of conduct and the mechanisms or process for applying those rules. Individuals must have incentives to recognize rules of conduct, for example, or the rules tend to become irrelevant, so institutions for enforcement are a necessary component of the enterprise of law. Similarly, when a situation arises in which the implications of existing rules are unclear, a dispute becomes likely, so dispute resolution institutions will be required. Furthermore, as conditions change new rules may be needed, and mechanisms for development of new rules and changes in old rules must exist. Thus, legal systems include mechanisms to induce recognition and acceptance of rules, as well as procedures for dispute resolution and legal change, and consequently, they

tend to evolve to display very similar structural characteristics (Fuller 1964, pp. 150–51). Fuller's definition of law is accepted here, in part because it allows the analysis of law to focus on the institutions involved in the production and enforcement of legal rules, and on the incentives which both lead to the development of and arise as a consequence of those institutions. That is, it lends itself to an economic analysis of law.[5]

Customary law

Individuals can be forced to recognize law, or they can be persuaded, thus voluntarily avoiding the proscribed behavior in recognition of personal benefits. Hayek (1973, pp. 96–97) explained that many issues of law are not "whether the parties have abused anybody's will, but whether their actions have conformed to expectations which other parties had reasonably formed because they corresponded to the practices on which the everyday conduct of the members of the group was based. The significance of customs here is that they give rise to expectations that guide people's actions, and what will be regarded as binding will therefore be those practices that everybody counts on being observed and which thereby condition the success of most activities." Customary law is recognized, not because it is backed by the power of some strong individual or institution, but because each individual recognizes the benefits of behaving in accordance with other individuals' expectations, *given* that others also behave as he expects. Alternatively, law can be coercively imposed from above by a minority.[6] Of course, such law will require much more force to maintain social order than is required when law develops from the bottom through mutual recognition and acceptance.

Reciprocities are the basic source both of the recognition of duty to obey law and of law enforcement in a customary law system. That is, individuals must "exchange" recognition of certain behavioral rules with one another for their mutual benefit. Individual *A* must agree (perhaps explicitly as through a contract, or perhaps implicitly through behavioral patterns that establish expectations) to act in a certain way in his relationship with *B* in exchange for *B* acting in a certain way in his relationships with *A*. Fuller (1964, pp. 23–24) suggested three conditions which make a duty clear and acceptable to those affected: First, the relationship between the parties immediately affected must be voluntary; second, both parties must gain from

the exchange; and third the parties must expect to interact fairly regularly so that the resulting duty can be reversible in the sense that what one individual is required to do at a particular time can be required of another at a different time.

Since the source of recognition of customary law is reciprocity, private property rights and the rights of individuals are likely to constitute the most important primary rules of conduct in such legal systems (Benson 1989a; 1990). After all, voluntarily recognition of laws and participation in their enforcement is likely to arise *only when substantial benefits from doing so can be internalized by each individual*. Individuals require incentives to become involved in any legal process, of course, and incentives can take the form of rewards (personal benefits) or punishments. Punishment is frequently the threat which induces recognition of law imposed from above, but when customary law prevails, incentives must be largely positive. Individuals must expect to gain as much or more than the costs they bear from voluntary involvement in the legal system. Protection of personal property and individual rights is a very attractive benefit.[7]

Under customary law, offenses are treated as torts (private wrongs or injuries) rather than crimes (offenses against the state, the tribe, or the "society" at large). This is inevitable since interaction between individuals is required for something to become an issue of law. Thus, a potential action by one person has to impact someone else before any question of legality can arise. Any action which is not clearly of this kind, such as what a person does alone, or in voluntary cooperation with someone else but in a manner which clearly harms no one, is not likely to become the subject of a rule of conduct under customary law. Indeed, Fuller (1981, p. 213) proposed that "customary law" might best be described as a "language of interaction." This function of facilitating interaction can only be accomplished with recognition of clear (although not necessarily written) codes of conduct enforced through reciprocally acceptable, well established adjudication arrangements accompanied by effective legal sanctions.

Customary law as an unwritten constitution

James Buchanan (1972a, p. 37) posed the following question: if government is dismantled, "how do rights re-emerge and come to command respect?" How do "laws" emerge that carry with them

general respect for their "legitimacy?" He contended that collective action would be necessary to devise a "social contract" or "constitution" designed to define the rights of the people in the first place and to establish the institutions to enforce those rights (1972a; 1972b). However, collective action for the production of law can be achieved through the process of individual agreements, with the resulting rules spreading to other members of a group if they are useful rules. For instance, Demsetz (1967) explained that property rights will be defined when the benefits of doing so cover the costs of defining and enforcing such rights. Such benefits may become evident because a dispute arises, for example, perhaps implying that existing rules do not adequately cover some new situation. The parties involved must expect the benefits from resolving the dispute (e.g., avoiding a violent confrontation), and of establishing a new rule, to outweigh the cost of resolving the dispute and enforcing the resulting judgment, or they would not take it to the adjudication system.

Dispute resolution actually can be a major source of legal change since in most types of interaction, situations arise wherein uncertainty exists as to what expectations are legitimate. Consequently, it becomes necessary to appeal to an arbitrator or mediator (the development of such institutions is discussed below) if violence is to be prevented. Such an adjudicator will often have to make more precise those rules about which differences of opinion exist, and at times even to supply new rules because no generally recognized rules exist to cover a new situation (Hayek 1973, p. 99). If the relevant group accepts the ruling it will affect other individuals' behavior as well: "Even in the absence of any formalized doctrine of stare decisis or res judicata, an adjudicative determination will normally enter in some degree into the litigants' future relations and into the future relations of other parties who see themselves as possible litigants before the same tribunal. Even if there is no statement by the tribunal of the reasons for its decision, some reason will be perceived or guessed at, and the parties will tend to govern their conduct accordingly" (Fuller 1981, p. 90).

An adjudicated decision becomes part of customary law only if it is seen as a desirable rule by all affected parties, however. It is not coercively imposed on a group by some authority backing the court. Thus, good rules which facilitate interaction tend to be selected over time, while bad decisions are ignored (Benson 1988). For new rules to be accepted by the members of an

affected group, they generally must build upon, and indeed, extend existing rules. That is, the fundamental principles of customary law (e.g., private property and individual rights) do not change.[8] They are simply extended to cover new situations. As Fuller emphasized, "Tradition is not something constant but the product of a process guided . . . by success" (1964, p. 90). Fuller's characterization of customary law is therefore quite consistent with Hayek's (1973) view of an evolving social contract.[9]

Dispute resolution is not the only source of legal evolution under customary law. Rules of conduct evolve in many ways as individuals interact with one another. Individuals may simply observe that others are behaving in a particular way in light of a new situation, and adopt similar behavior themselves, recognizing the benefit of avoiding a confrontation by trying to establish a different type of behavior. As a consequence of adopting such behavior, the individuals create an obligation to one another to continue the behavioral pattern, and a new rule of customary law has been created. Fuller (1981, pp. 227–28) explained:

> Where customary law does in fact spread we must not be mislead as to the process by which this extension takes place. It has sometimes been thought of as if it involved a kind of inarticulate expression of group will. . . . This kind of explanation abstracts from the interactional process underlying customary law and ignores their ever-present communicative aspect.

Thus, customary law evolves as the benefits of adopting new practices and customs are recognized by individuals.

Institutions for enforcement similarly evolve due to recognition of reciprocal benefits. Consequently, customary law is appropriately viewed (Fuller 1964, pp. 128–29) as:

> a branch of constitutional law, largely and properly developed outside the framework of our written constitutions. It is constitutional law in that it involves the allocation among various institutions . . . of legal power, that is, the authority to enact rules and to reach decisions that will be regarded as properly binding on those affected by them.

Consider the development of dispute resolution procedures. No state-like coercive authority exists in a customary system to force disputants into a court, so some other means of inducing disputants to peacefully resolve their disagreement must evolve. Since rules of obligation under customary law are in the nature of torts it is up to the aggrieved party to pursue prosecution. Consequently, individuals have strong reciprocal incentives to join with others to form mutual support groups for legal matters. [10] The resulting group contract makes group members obligated to aid any other member in a valid dispute, given that member has fulfilled his obligations to the group in the past. Thus, ability to obtain support in a dispute depends upon an exchange of reciprocal loyalty.

Reciprocal support groups give individuals a position of strength should a dispute arise. This does not mean that disputes are settled by warfare between groups, however. Violence is a potential means of solving a dispute, but it is a very costly one. After all, if the accuser and his support group attacks the accused, members of the accused's group are obliged to avenge the attack. Thus, group members (as well as non-group residents in the vicinity of those directly involved) are generally very anxious for a peaceful settlement in order to avoid an extended violent confrontation.[11] Consequently, arrangements and procedures for non-violent dispute resolution should evolve very quickly in customary law systems.

The impetus for accepting adjudication to settle a dispute in a customary legal system (as well as an authoritarian system[12]) is the ever present threat of force, but use of such force is certainly not likely to be the norm. Rather, an agreement between the parties must be negotiated. Frequently, a mutually acceptable arbitrator or mediator is chosen to consider the dispute. This individual (or group of individuals) will have no vested authority to impose a solution on disputants, however. The ruling, therefore must be acceptable to the groups to which both parties in the dispute belong. An arbitrator or mediator's only real power under such a system is that of persuasion.[13]

Since customary law is in the nature of tort law rather than criminal law, if the accused offender is determined to be guilty, the "punishment" tends to be economic in nature: restitution in the form of a fine or indemnity to be paid to the plaintiff by the offender. Other forms of punishment (e.g., imprisonment) are inefficient, after all, in that they are costly for the group to administer and do not generate sufficient benefits to restore a

victim. Liability, intent, the value of the damages, and the status of the offended person all may be considered in determining the indemnity. Every invasion of person or property is generally valued in terms of property.

A judgment under customary law that is acceptable to individuals in all the affected groups is typically enforceable because of an effective threat of total ostracism by the members of the entire community. Reciprocities between the groups, recognizing the high cost of refusal to accept good judgments, takes any individual who refuses such a judgement outside his support group, and he becomes an outcast, or outlaw. Fear of this severe boycott sanction means that the adjudicated solutions tend to be accepted, of course. Once again, the threat of violence does not, in itself, imply that violence must be the norm. Indeed, the threat of violent punishment is a significant deterrent to illegal behavior in every legal system, but as stressed above, customary legal systems have as one of their basic impetuses the desire by individuals to avoid violence.

We are now in a position to examine examples of customary law systems among American Indians. One group which remained relatively isolated from European influence at least until the second half of the nineteenth century was the Yurok Indians and their Northern California neighbors.

Yurok Law

The Yurok Indians of the nineteenth century lived along the lower reaches of the Klamath River and the nearby Pacific Coast (Kroeber 1925). Fishing and food gathering were major sources of subsistence, but sufficient production occurred to allow for a considerable amount of trade, relative to many other American Indian groups of the period (exchange was facilitated by a monetary system). In order to facilitate interaction, including trade, these Indians had “a welter of legal relationships in the realm of personal law” (Hoebel 1954, p. 52). In particular, as Goldsmidt (1951, p. 506) found, after studying the Yurok, Hupa, Karok and some of their Northern California neighbors, property was universally held in individual private ownership. Indeed, property was extremely important for the maintenance of personal status and prestige (Hoebel 1954, p. 52). Thus, private property rights were sharply defined with regard to both privileges and liabilities. Title considerations, for instance, included: (1) separation of title to different types of products; (2)

ownership rights within the territory of an alien group (e.g., Hupas owned property inside Yurok territory, etc.); and (3) the division of title between persons. Ownership was complete and transferable.

Consider an example. A canoe owner had exclusive rights of use of the canoe. If someone used a canoe without permission, or in some way misused or harmed the canoe, the owner could collect damages. In addition the owner could transfer the property rights to another through sale or as a gift. However, there were also well recognized duties or obligations which went with canoe ownership (Hoebel 1954, p. 57). For instance, a canoe owner was obliged to ferry a traveler across the river if it was requested. Refusal resulted in restitution to the traveler. In this regard, however, the traveler was liable for any damages suffered by the canoe owner as a consequence of ferrying. For instance, if the canoe owner's house burned down while he was ferrying a traveler, the traveler was liable for full damages. Property rights clearly could be quite complex.

Similarly, for instance, the owner of a fishing spot on the banks of the Klamath had exclusive use of the site. However, he could sell a temporary right of use to a second party if he wished. Extension of such a right carried with it a liability as well (Hoebel 1954, p. 55). The owner was responsible for seeing that the user was not injured while fishing. If a user slipped on a rock, for example, and suffered an injury, the owner had to pay damages. Ownership rights for a fishing spot could also be permanently divided in the sense that several individuals could hold limited ownership rights to the same spot, with each having exclusive rights (including liability) to its use during certain specified times.

In addition to rules of conduct, the Yurok and their neighbors also developed an enterprise of law. Socially, these Indians were organized in households and villages. There were no class or other inalienable group affiliations, and no vested authoritarian position—that is, *no state-like tribal government* with coercive power (Goldsmidt 1951, p. 511):

> We may dismiss the village and tribe with a word. Though persons were identified by their village of residence and their tribe of origin, neither of these groups had any direct claim upon the action of the individual, there was no village nor national government, no village or tribal action in wars.

> Significantly, the affiliation could effectively be broken by moving to a distance or to one of the other tribes within the orbit of the culture.

These Indians, nonetheless, had a well-developed system of private judging (Hoebel 1954, pp. 52–53; Landes and Posner 1979, p. 243). Each man in these tribes was a member of a "sweathouse group"—a clique of the men from three or more neighboring houses who shared a sudatoria (Goldsmidt 1951, p. 512). These groups often consisted of members of the same family, but family relationships were not necessary. An individual was free to join any group as long as others in the group agreed. The groups were more than just social organizations, however. They carried out religious rituals *and* they acted in mutual support in the case of a dispute. Each member had strong incentives to provide such support because at some point in the future he might find himself in a dispute and require the current disputant to reciprocate (the Yurok also believed that religious or supernatural benefits were achieved by joining such groups, and of course, other personal benefits were also associated with socializing with neighbors).

Fuller's three conditions for reciprocal recognition of a legal duty were clearly met within in the Yurok sweathouse groups. The arrangements were voluntarily entered into. An individual exchanged a commitment to support others in the case of a legal dispute, for the equivalent commitment from those other individuals for the same support should he find himself in such a dispute. And finally, the arrangement was symmetrical in the sense that each individual had strong incentives to support a victim in the event of a dispute, because he realized that he might require the same kind of backing in the future. The fact that men voluntarily entered into such reciprocal arrangements implies that the accompanying duties were clearly spelled out and generally fulfilled when a dispute arose.

It was up to the victim or his support group to institute proceedings against an offender, but formal procedures had to be followed. Victims did not have the right to seek revenge or collect damages directly. Rather, if a Yurok wanted to process a legal claim he would hire two, three or four "crossers"—non-relatives from a community other than his own. The defendant in the claim would also hire crossers and the entire group hired by both parties would act as go betweens, ascertaining claims and defenses and gathering evidence. The crossers would render a

judgment for damages after hearing all the evidence. Note that crossers were similar to modern arbitrators or mediators rather than public sector judges, because their judgments were not backed by the police powers of a centralized authority.

A large range of offenses were recognized by these Northern California tribes, ranging from murder to adultery, theft and poaching, to curses and minor insults (Goldsmidt 1951, p. 512). All offenses were against the person since there was no formalized social unit. Yurok law contained a clearly indicated fine or indemnity to be paid to the plaintiff by the offender, given the crossers' judgment was that the defendant was guilty. Liability, intent, the value of the damages and the status of the offended person were all considered in determining the indemnity. Every invasion of person or property could be valued in terms of property, however, and each required exact compensation. Again, law was clearly in the nature of modern tort law rather than criminal law.

The crossers' judgment was enforceable because there was an effective threat of total ostracism by the entire community of tribes. In the case of this Northern California society, if someone failed to pay the fine he automatically became the plaintiff's wage slave. If he refused to submit to this he became an outlaw which meant that anyone could kill him without any liability for the killing. In particular, if an offender became an outlaw, the offended individual's sweathouse group would back his effort for physical retribution. The rest of the "community" would not interfere, again through reciprocal recognition that any member of the society might at some time require such community support in ostracizing a law breaker. Fear of this severe boycott sanction meant that the crossers' judgment tended to be accepted, of course. As in other societies, then, obeying the Yurok's laws led to relatively predictable consequences. Disobeying, and the resulting ostracism by the community, meant living outside the social order, and the added uncertainty that entailed provided strong incentives to obey the laws, or yield to whatever punishment the crossers' proposed in the case of a violation. Recognition of the authority of Yurok law and support of the adjudication procedure that they developed was, therefore at least in part, a consequence of the reduced uncertainty that legal system provided.

If a victim chose not to follow the formal adjudicative procedures, then he violated the law and was liable for damages. Consider an example involving ownership rights to a beach.

Owners had to allow seal hunters access to the water, but in exchange the land owner was to receive the flippers of all sea lions caught on his beach. A case which took place during the 1860s involved a wealthy and powerful individual who owned about four miles of beach around his village (see Hoebel 1954, pp. 54–55; or Spott and Kroeber 1943, pp. 182–99). A particular seal hunter disregarded the owner's property rights on several occasions by failing to give him the sea lion flippers he had a right to, but rather than follow the formal procedures of law, the beach owner took revenge by assaulting the hunter's father and wounding him. The hunter's support group, consisting of members of his family in this case, then instituted a suit against the beach owner for damages. The crossers ruled that the assault damages were slightly less than the original damages that the beach owner could have claimed against the hunter, but under the circumstances both legal claims were nullified. Nonetheless, the hunter remained antagonistic against the beach owner, and two days later he cursed the beach owner. This was a violation of Yurok law, and the beach owner entered a legal claim. While the crossers were at work, however, a relative of the beach owner assaulted the hunter and killed him. Thus, a member of the beach owner's support group simultaneously disregarded due process while adjudication was under way, and took the life of a member of the society—both were very serious violations of Yurok law. At this point a blood feud might have broken out. However, the incentives to avoid such a costly action were strong, and the slain hunter's mother entered a legal claim for restitution. Specifically, she maintained that the beach owner's property rights to the flippers of sea lions killed on his beach should be transferred to her family. She won the award, and was backed by the community at large. Further violence was avoided. This case illustrates that even the very powerful and wealthy were subject to the law. Of course, it also illustrates that individuals broke the law and resorted to violence on occasion. But the same is true of any legal system. Members of urban gangs regularly kill members of rival gangs today, and public police kill hundreds of individuals annually who refuse to yield to the criminal justice system. The Yurok system did stop the violence from escalating further and endangering the social order of the community.

Naturally, it is difficult to judge the actual degree of certainty and efficiency of this primitive legal system. However, there is some indirect evidence. For one thing, these California

Indians were ". . . a busy and creative people . . . [and] poverty was not found here" (Goldsmidt 1951, pp. 513–14). If incentives were in place to induce "busy and creative" behavior it is likely that individuals and their private property rights were quite well protected. In fact, the very existence of the relatively complex customary system of private property indicates that the legal system was relatively efficient as compared to what it evolved from. As Hayek explained, individuals adopt and follow rules of conduct "because actions in accordance with them have proved more successful than those of competing individuals or groups" (1973, p. 18).[14]

In this regard, it should be stressed, however, that the success of one group over competing groups does not imply conquest through warfare. In the case of the Yurok, for instance, the earliest sweat-house groups probably proved to be an effective social arrangement for internalizing reciprocal legal and religious benefits, *relative* to previously existing arrangements. Others saw those benefits and either joined existing groups or copied their successful characteristics and formed new groups. In the process the arrangements may have been improved upon, become more formal (almost contractual) and effective. It is perfectly conceivable that neither members of the earliest groups nor those which followed even understood what particular aspect of the contract actually facilitated interactions that led to an improved social order—they may have viewed the religious function to be their main purpose and paid little attention to the consequence of their legal functions, for instance. Customary law and society develop spontaneously and conterminously. Those customs and associated legal institutions that survive are relatively efficient because the evolutionary process is one of voluntary "natural selection" where laws or procedures that serve social interaction relatively poorly are ultimately replaced by improved laws and procedures.

The discussion of the Yurok legal system has introduced several general features that probably characterized virtually all primitive Indian legal systems at some point prior to the pressures put on these legal systems by the arrival and continual westward movement of Europeans (the Yuroks were simply one of the last Indian groups to feel this pressure). Naturally, many of these legal systems have not and cannot be studied, so it cannot be said with certainty that all such systems displayed these features at some point in their development. Nonetheless, there are theoretical reasons to expect that they did and

anthropological studies of many primitive systems support these expectations.[15] These features are: (1) rules of conduct which emphasized a predominant concern for *individual rights and private property*, (2) the responsibility of law enforcement falling to the victim backed *by reciprocal arrangements for protection and support when a dispute arose*; (3) standard *adjudicative procedures* established in order *to avoid violent forms of dispute resolution*; (4) offenses treated as torts punishable by *economic payments in restitution*; (5) strong *incentives to yield to prescribed punishment* when guilty of an offense due to the reciprocally established *threat of social ostracism* which led to physical retribution; and (6) legal change arising through an *evolutionary process of developing customs and norms*. Let us turn to another example (among many) of the primitive Indian systems that anthropologists have studied —the Comanche.[16] We shall find that the same characteristics listed here apply, even though the actual institutions and procedures differed in some ways.

Nineteenth-Century Comanche Law

By the nineteenth century tremendous changes had already occurred in the life of the plains Indians, as a direct result of the movement of Europeans into America (Hoebel 1954, pp. 126–27). Before the arrival of the Spanish, for instance, these Indians were largely river bound, and rarely traveled over the plains. Thus, their lives were probably similar to the Yuroks in many ways. The introduction of horses by the Spanish allowed the plains Indians to significantly expand their hunting territories. Many became nomadic tepee-dwelling buffalo hunters as a consequence of this and other factors set in motion by the arrival of Europeans. One of those factors was British and French settlement of the eastern part of the continent which began to displace many of the Eastern woodland Indians. As these Indians moved west, conflicts between tribes began to occur. Previously peaceful Indians were forced to become warriors in an effort to protect their homes, property, and hunting territories. On top of this, the fur trade created an additional reason for this conflict. British companies gave guns to certain tribes and encouraged them to drive off tribes which traded with the French. The French responded in kind. Tribes with relatively poor arms were driven westward, and more new tribes entered the plains. Tribes native to the plains were displaced as a consequence. One of these tribes was the Comanche.

In the sixteenth century the Comanche were part of the Shoshonean group of tribes occupying the headwaters of the Missouri and Yellowstone Rivers. They were not at all warlike (Hoebel 1954, p. 129). The Shoshonean lived in isolated family bands that were economically self-sufficient. By the eighteenth century, the Comanche had split from the rest of the Shoshonean as they were pushed to the southern plains while the Shoshones were driven over the Rocky Mountains by tribes coming in from the east. This led to a tremendous change in the Comanche way of life, in part because the Comanche were one of the first Indian groups to acquire horses. Their numbers grew, and they became very militant as they strove to defend their newly claimed territory and wealth from other Indians and from the advancing Europeans. Military prowess became a source of considerable pride and prestige for the individual Comanche.

The Comanche population of the nineteenth century was distributed among a large number of loosely organized, autonomous bands. “The tribe was no more than a congerie of bands held together as a peace group by the bonds of common tongue and culture. There appears to have been no machinery for institutionalized political action on a tribal scale” (Hoebel 1967, p. 184). Beyond that, there was no clan organization and even kinship principles were weak. There was not even a formal organization for warfare. “War chiefs” were simply outstanding fighters with long records of accomplishments against enemies. Anyone was free to organize a war party *if* he could convince others to follow him, but such individuals had leadership roles only when others voluntarily followed, and only for the period of the raid (Hoebel 1954, p. 132). They had no authority in internal tribal matters such as law. There were also band headmen or “peace chiefs,” but they too had no formal authority. They were typically well-respected wise men of the band who made certain routine decisions regarding the day to day operation of the band, such as when and where to move the camp. However, “Anyone who did not like his decision simply ignored it. If in time a good many people ignored his announcements and preferred to stay behind with some other man of influence, or perhaps to move in another direction with other men, the chief had lost his following. He was no longer chief, and another had quietly superseded him” (Hoebel 1954, p. 132). A respected peace chief might have relatively more influence in important decisions of the band as well, because he was typically a wise man with considerable experience—people respected his opinion. However,

he had no special authority in such decisions, and all men of the band were free to have their say. In particular, he had no "law-speaking or law-enforcing authority" (Hoebel 1954, p. 133). Yet there was an implicit social contract establishing an enterprise of law.

In this apparently very unorganized society there was a very clear, widely held set of rules of conduct. These rules reflected individual rights to private property. Indeed, among the Comanche, "the individual is supreme in all things" (Hoebel 1954, p. 131). Some have suggested that the plains Indians did not recognize private property because private land holdings by individuals were not recognized. However, property rights are developed only after the benefits of doing so outweigh the costs (Demsetz 1967), and the nomadic hunting and gathering lifestyle of the plains Indians, particularly after the introduction of horses, meant that individual's rights to specific tracks of land would be worth very little. Furthermore, prior to settlement of the region by white men, land was still very abundant within the range of most of the plains tribes, so private property rights to land were largely unnecessary (groups of individuals, such as bands and clans claimed certain hunting territories, of course). Other goods (e.g., horses, weapons, food, etc.) were privately held.

Reciprocally recognized ostracism in the society provided the incentives which backed the rules regarding individual rights, just as with the Yurok. In fact, among the Comanche, a male who suffered a legal wrong had to take action against the offender or face social disgrace as a coward, so a form of social ostracism played a significant role in inducing victims to bring suit. For example, adultery and the taking of another's wife were considered as direct attacks against the husband. The husband had to respond to such an attack in order to maintain his reputation. "Ridicule was the weapon used by society to cause a man to proceed after the cause for action had become public" (Hoebel 1967, p. 189). Thus, the aggrieved could either confront the accused directly and publicly by stating the offense and demanding what he considered appropriate compensation for damages, or send a representative to prosecute the claim, implying the matter was not worth his personal attention, or form a group to prosecute. However, if an individual lacked self-confidence and/or had insufficient status to gather a prosecuting group, Comanche "legal procedure" allowed for two options. First, the plaintiff could ask a war chief—or "champion-at-law"—to act for him, and if this warrior agreed he would then be

obliged to see the process through to the end (see further discussion below). Or second, an old woman could be sent to prosecute, ". . . hoping through presenting his cause pitiably to touch the compassion of the offender and so gain larger damages than he himself would dare demand" (Hoebel 1967, p. 191).

Once the charges were made under any of the procedures noted above, the next step was bargaining. Thus, the rules of adjudication delineated a system more closely aligned with modern mediation than with arbitration. Adjudication was even less clearly associated with persons than it was under the Yurok system of crossers. Nonetheless, it existed. Widely held rules of adjudication procedure were followed. For instance, there were virtually no cases in which evidence or witnesses were presented. The accuser was expected to ascertain guilt before confronting the offender so no evidence was necessary. Of course, guilt could be denied, and it is not clear what the procedure was under such circumstances. The fact is that, "Denial of guilt by an accused . . . was so uncommon that there are not cases enough *to* draw sound conclusions" (Hoebel 1967, p. 192). Indeed, the defendant typically recognized that he would have to pay restitution when he committed an offense (Hoebel 1954, p. 134), since the Comanche rules of obligation were well known. He simply hoped to use the adjudication process to keep the payment light, while the plaintiff naturally hoped for a large payment. The plaintiff or his representatives typically would state his demands for damages with formal politeness in front of other members of the group, but there was no judge or arbitrator to determine the compensation to be paid. And unlike the Yurok's, there was no customary code of payments relating to various offenses. Therefore, cases could only be settled by mutual agreement reached through bargaining. Previous legal decisions might serve as a guide, of course, and in this respect Comanche law was case law (Hoebel 1954, p. 135).

As Hoebel (1967, p. 193) explained, "A reputation as a doughty slayer of enemies was a handy thing," since the solution reached in the bargaining process often reflected the relative skills of the two parties in warfare. In Comanche law, as in all law, the ultimate threat was violence. If the bargaining process broke down the parties had the right to use force. Nonetheless, the obvious implication drawn from this discussion that "might makes right" is clearly inappropriate in the Comanche case. As noted above, a plaintiff need not prosecute his claim by himself. Only those who were sure of their courage relative to the

defendant actually did so. If an offended individual was not confident of his bargaining strength he could gather his relatives (particularly his brothers) and perhaps other friends together to aid him in seeking compensation. This was a much less formal arrangement than the Yurok's sweathouse cliques, but a person's ability to put together a group for support still was clearly a reciprocal arrangement—friends and relatives were willing to provide support because they might need the plaintiff's support in some future dispute. Among the Comanche, however, this privilege was apparently not granted to the offender (Hoebel 1967, p. 196). Thus, the legal procedures gave added protection to the aggrieved.

Of course, this could lead to such a large show of force that the defendant could be cowed into paying unduly high restitution. One clear advantage of giving an overbalancing of force to the prosecuting side rather than the defenders side, of course, is that such a system provides a relatively strong deterrent to illegal behavior. Nonetheless, the over-balancing was not as great a problem as it might appear (Hoebel 1967, p. 196). One constraint on the size of a plaintiff's group, and therefore on the show of force, for instance, was that any friend or relative called upon to join the group received a share of the damages paid, and group participants' claims to shares of the compensation took precedent over the plaintiff's claim. Punishment was in the form of economic restitution, but if too large a group was gathered, the offended party might end up with virtually nothing as restitution for the harm done to him. Beyond that, the need for a large show of force meant that the plaintiff lost considerable prestige within the band. Thus, he had incentives to keep the support group in any dispute to a minimum.

The strongest reciprocal linkage among the Comanche was between brothers, and this was the primary source of support in a dispute. Some individuals had no brothers, perhaps because they had died in warfare, or perhaps because the individual had initially been captured from another tribe. The Comanche were constantly recouping their loses in warfare with captives taken as children. These children acquired full rights in Comanche society and many were adopted by Comanche families, thus establishing kinship linkages (Hoebel 1954, p. 137). Some captives were not adopted, however, and while they achieved free status, they never established the reciprocal kinship ties necessary in a dispute with a strong defendant. Nonetheless, even those injured

parties who could not gather a group for support had recourse, as noted earlier—"men whose status was so low that on the personal and kinship basis they were, in effect, without status were still guaranteed protection under the Comanche law . . . There was the institution of *champion-at-law*" (Hoebel 1967, p. 198). The champion-at-law was not an arbitrator or even a mediator. He served to represent a damage claim in the bargaining process and, if need be, in physical combat.

There were no payments to convince a warrior to act as a champion. He did not receive a share of the compensation paid by the offender. Threat of ridicule seems to have provided sufficient incentives, however, since any warrior who refused to serve as a champion was held to have done so because he feared the defendant. No war chief was willing to admit fear. Hoebel felt that the "institutional capitalization of these factors is an amazing piece of social engineering" (1967, p. 200). But as Fuller (1981, pp. 243–44) noted, one advantage of customary law is that it "does not limit itself to requiring or prohibiting precisely defined acts, but may also designate roles and functions, and then, when the occasion arises, hold those discharging these roles and functions to an accounting for their performances. . . . Stable interactional expectancies can arise with reference to roles and functions as well as to specific acts; a language of interaction will contain not only a vocabulary of deeds but also a basic grammar that will organize deeds into meaningful patterns."

Procedures developed by the Comanche were clearly designed to tip the scales of relative strength in such a way as to generate a bargained settlement—that is, to *avoid a violent confrontation*. The accused was not necessarily put at a tremendous disadvantage but there appears to have been sufficient force arrayed against him to convince him that he was likely to be better off bargaining in good faith. The ". . . Comanche legal system is therefore to be viewed as a not so badly balanced mechanism, which operated without the organization of government" (Hoebel 1967, p. 200). Given the primitive, warlike nature of nineteenth-century Comanche society, their unwritten social contract produced rules and legal institutions which represent a remarkably efficient, violence-free system of internal order.

Conclusions: Amendments Imposed on the Social Contract

As pressures from European settlement mounted, the way of life of American Indians changed dramatically. They were forced into military confrontations among themselves and with the advancing white settlers. The resulting changes set the stage for amendments to implicit social contracts within some tribes, even before the American government subjugated them, suppressed their law, and put them on reservations. For example, some tribes began to organize and centralize authority, primarily for warfare, and this centralization frequently had legal ramifications. Consider the Cheyenne, for instance. Before 1600 they were a food-gathering society residing around the lakes near the headwaters of the Mississippi River (Hoebel 1954, p. 144). They were pushed westward during the seventeenth century and sought sanctuary along the Missouri river in the Dakotas, where they built earth-lodge villages and adopted corn farming. During the eighteenth century they were pushed further and became a nomadic horse tribe of the plains. Unlike the Comanche, however, the Cheyenne clearly recognized the advantages of organization for warfare. They developed a formalized military system consisting of six "soldier societies," and the beginnings of a centralized tribal government in the form of tenured chiefs in a tribal council. Law took on a tribal, or communal nature as a consequence of the growing power of the soldier societies and tribal council. Hoebel suggested that there were "social purposes" of Cheyenne law by the nineteenth century (1954, p. 130), but this simply means that the individual and his rights were no longer paramount in all things. Indeed, individuals were considered to be subordinate to supernatural forces and spirit beings, who in turn were represented by the central tribal council; this council presumably had ultimate authority over all other elements in Cheyenne society (Hoebel 1954, pp. 142–43). [17]

Cheyenne bands scattered during the winter months, but during the summer they joined together as a tribe. Here the tribal council of 44 chiefs ruled. These chiefs were appointed for specific tenure (unlike chiefs among the Comanche, for example), and each chief, upon completion of his tenure, appointed his own successor. If a chief died his successor was appointed by the other chiefs. These council members were the individual bands' peace chiefs as well, and one duty of the chief was to act as a mediator in disputes. Thus, justice was becoming centralized. The soldier societies also developed legal functions. Initially, this was limited to the maintenance of order on communal hunts and

during tribal ceremonies, but "in the dynamic flow of crisis and cultural change in which the Cheyenne were caught in the nineteenth century the military societies were steadily expanding the area of their legal powers . . . the Cheyenne military societies *assumed jurisdiction* in a large variety of dispute and misbehavior situations . . ." (Hoebel 1954, p. 155, emphasis added). They made new law and frequently enforced their decisions with physical punishment and or banishment.[18]

The Cheyenne legal system prior to the advent of this outside pressure apparently was, like most North American Indians' legal systems, characterized by a social contract which established decentralized institutions and customary law, emphasizing individual rights and private property.[19] The social contract was amended, not by mutual recognition of all affected parties arising out of reciprocity, but by the use of organized power which came about as a consequence of external forces resulting from the advancing tide of European settlement.[20] The consequences of such amendments can be seen even today. The institutions of American Indian law that have developed on reservations since the federal government began to loosen its control over reservation Indians and their property rights in the early to mid 1970s are dominated by the centralized authority of tribal governments with their tribal councils, courts and tribal police. Beyond that, many of the property rights on reservations are increasingly designated as tribal or communal, under the control of the centralized tribal governments. This is exemplified by a large increase in tribal ownership of reservation lands (see Anderson and Lueck 1989), but tribal governments are also making decisions regarding the allocation of many other economic resources on reservations for activities like large development projects. Cornell (1987, pp. 63–64) points out that many tribal councils cite a commitment to preserving Indian culture and traditions as a primary justification for not releasing control over tribal resources to individual Indians, and for not decentralizing reservation institutions. If today's Indian political leaders mean maintaining the traditions and culture inherited from the very brief period of Indian history during which external forces led to centralization and increasing emphasis on communal rights, then for the most part, they are really speaking of a culture which was already tremendously influenced by the coming of the white man. If Indian leaders truly wish to preserve Indian tradition as it was when Europeans began to influence Indian society, however, then they should be *reestablishing*

private property rights and decentralizing the legal system.

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[1] As E. Adamson Hoebel (1954, p. 294), who is responsible for some of the most important anthropological studies of American Indian law, explained, in virtually all primitive groups:

> The community group, although it may be ethnologically a segment of a tribe is autonomous and politically independent. There is no tribal state. Leadership resides in family or local group headmen who have little coercive authority and are hence lacking in both the means to exploit and the means to judge. They are not explicitly elected to office; rather, they lead by the tacit consent of their followers, and they lose their leadership when their people begin no longer to accept their suggestions . . . As it is, their leadership is confined to action in routine matters. The patriarchal tyrant of the primitive horde is nothing but a figment of nineteenth-century speculation . . . But primitive anarchy does not mean disorder. Anarchy as

> synonymous with disorder occurs only temporarily in complex societies when in a social cataclysm the regulating restraints of government and law are suddenly and disastrously removed.

[2] This is not the first time that primitive Indian legal systems have been analyzed from an economic perspective. Baden, Stroup and Thurman (1981) examined the resource management incentives of various American Indian tribes, for example, while Demsetz (1967) explained the incentives to establish property rights and applied his analysis with examples from American Indian history, and Johnsen (1986) explored the formation and protection of property rights among the Kwakiutl Indians. The presentation below follows the lead of these studies, but goes beyond the emphasis on incentives for and the process of property right formation to discuss the *legal institutions* formed for the enforcement of rights, adjudication of disputes, and legal change.

[3] For an example from the anthropological literature, see Malinowski (1926).

[4] This is but one definition or "theory" of law, however. For example, Friedman (1951, p. 281) proposed that "the rule of law simply means the 'existence of public order.' It means *organized government*, operating through the various instruments and channels of *legal command*" (emphasis added). Friedman's perception of the law falls under the legal positivist (or "New Analytical Juristo") umbrella which typically identifies law with the legal institutions that are observed: generally the state (see Hart [1961] for a forceful modern exposition of the legal positivist view in the tradition of Hobbes and Austin). Fuller, on the other hand, held an evolutionary (or "natural law") perspective. One question emphasized below, of course, is whether state-like coercive power is required for effective law. Thus, one purpose of the following analysis is to support a natural law theory and reject legal positivist definitions of law which assume such a requirement.

[5] There are other reasons for adopting this definition as well. See note 4 above, for example, and Benson (1990) for more details.

[6] For more detailed discussion of the differences between customary and authoritarian law, see Benson (1990).

[7] Private property is not a European or capitalist invention, nor is it exclusive to free market economic systems. It

is a key characteristic of all societies wherein custom is the primary source of law and reciprocity is the primary impetus for recognition. Thus, for example, private property has been a central component of primitive legal systems, at least until authority begins to be centralized and backed by organized coercive power that can be used to attenuate and transfer such rights (Benson 1989a; 1990). As Hayek (1973, p. 108) explained, it is an

> erroneous idea that property had at some late stage been 'invented' and that before that there had existed an earlier state of primitive communism. This myth has been completely refuted by anthropological research. There can be no question now that the recognition of property preceded the rise of even the most primitive cultures, and that certainly all that we call civilization has grown up on the basis of that spontaneous order of actions which is made possible by the delimitation of protected domains of individuals and groups.

[8] As Epstein (1980, p. 266) explained, for example:

> the merits of freedom of contract in no way depend upon the accidents of time and place. Acceptance of that basic principle will not however put an end to all contractual disputes. It remains to discover the terms of given contracts, usually gathered from language itself, and the circumstances of its formation and performance. Even with these aids, many contractual gaps will remain, and the courts will be obliged, especially with partially executed contracts, to fashion the terms which the parties have not fashioned themselves. To fill the gaps, the courts have looked often to the custom or industry practice. The judicial practice makes good sense and for our purposes introduces an element of dynamism into the system . . . But it by no means follows that conduct in conformity with the custom of one generation is acceptable conduct in the next. The principles for the implication of terms, I believe, remain constant over generations. Yet the specific rules of conduct so implied will vary with time and with place.

The basic rules of private property and freedom of contract characterize customary law systems. As such systems evolve, the need for extensions of these basic principles to cover unanticipated circumstances always arise, however, and the customary law adapts through spontaneous collaboration, building on the existing base of substantive principles.

[9] Buchanan has been critical of some evolutionist analysis of the development of legal constraints, of course. For example, (Buchanan 1989, p. 44):

> A generalization of the evolutionist paradigm may suggest that, although institutions of social interaction do change through time, these changes can only emerge through the long process of cultural evolution. According to this perception, it is not legitimate to infer that basic institutions of social order, basic rules for the socio-economic-legal-political "game," can be "chosen" in any manner analogous to the choices of options that are available to persons, in a collective decision process, within an existing set of institutional rules.

However, in the case of customary legal systems which spontaneously evolve, all changes in the institutions and rules reflect individual choices. Rules and institutions can be "deliberately chosen" (see Benson [1988] for an example of a deliberately induced change in customary law) in a manner which is very analogous to one particular type of collective decision—Wicksell's unanimity or consensus rule. If a new rule or institutional arrangement is acceptable by all the affected parties it becomes part of customary law. The outcome of this process of constitutional choice is not "government" as popularly conceived, perhaps even by those who advocate a constitutionally limited government such as Buchanan, but individuals still end up being "governed" by a set of enforceable rules of conduct.

[10] The makeup of such groups may reflect family (as it frequently was in primitive societies [Hoebel 1954; Barton 1967; Benson 1989a]), religion (as in some primitive groups [Goldsmidt 1951]), geographic proximity (e.g., as in Anglo-Saxon England [Benson 1990]), functional similarity (as with commercial law [Trakman 1983; Berman 1983; Benson 1989b]), contractual arrangements (e.g., as in medieval Ireland, and in medieval Iceland [Peden 1977; Friedman 1979], and see

Anderson and Hill [1979], Umbeck [1981a] and Benson [1989c] for examples from American history, such as mining camps, land clubs, and wagon trains of the eighteenth-century West), or some combination of the these sources of recognition and trust.

[11] In fact, under customary law a great number of rules of adjudication typically prevent a direct physical confrontation between the two parties in a dispute as long as some other means of working towards a settlement is available (e.g., see Barton 1967; Pospisil 1971; or Benson 1989a).

[12] The threat of violence is ultimately what backs any system of property rights (Umbeck 1981a; 1981b).

[13] In this light, Fuller (1981, p. 134) observed that "A serious study of mediation can serve . . . to offset the tendency of modern thought to assume that all social order must be imposed by some kind of 'authority.' When we perceive how a mediator, claiming no 'authority,' can help the parties give order and coherence to their relationship, we may in the process come to realize . . . that social order can often arise directly out of the interactions it seems to govern and direct."

[14] Actual examples of changes in Yurok law are not documented. This is, unfortunately, true of much of the anthropology literature, although not all of it (Benson 1988). As Pospisil explained, "Since many societies have been studied for a relatively brief period (one or two consecutive years), and since many investigators have been heavily influenced by the early sociological dogma that divorces the individual from the 'social process,' it follows that there are very few accounts of volitional innovations [in primitive law]" (1971, p. 215). Nonetheless, crossers, in the process of settling disputes, were likely to, on occasion, make new rules.

There is, in fact, a more fundamental reason to expect that the laws of the Yurok could and did change. After all, those laws were not imposed on this society by some sovereign. They *developed* or *evolved* internally. Clearly the Indians of Northern California were a very homogeneous group by the time their laws and legal procedures evolved to the level described above, but this homogeneity had to develop in conjunction with an evolving process of interaction and reciprocity facilitated by customary law.

[15] Legal systems all over the world have, at one time or another, been characterizable in the same way that the Indian systems discussed above were characterized. Some anthropologists and legal scholars distinguish between "stages"

of legal development, for instance, and would put such customary systems in one or more of the stages occurring before centralization of political power and formal institutions of government arise (e.g., Malinowski 1926; Diamond 1950). Also see note 14 above in this regard, as well as Benson (1988; 1989a).

[16] Hoebel explained that the Comanche provides only one example of many such primitive societies where law existed without a political state (1967, p. 188).

[17] This is very similar to the development of kingship in Europe, where kings claimed that they had legal authority because they were descendants of gods, or later under Christianity, because they had divine rights to rule (Benson 1990; Berman 1983).

[18] The importance of military power in the early development of centralized legal authority is also similar to what occurred under European kings (see note 17 above), as is the increasing use of physical punishment instead of economic restitution (Benson 1990). With the rise of coercive authority, punishment becomes more arbitrary.

[19] This cannot be stated with certainty, but see footnote 15 above and the textual discussion to which it refers.

[20] One weakness in a customary social contract established under a unanimity rule (see note 9 above) is an apparent inability to prevent amendments imposed by powerful minorities when they become organized enough to exert their will. Of course, it is not clear that any constitution can prevent such actions once groups organize sufficiently to become powerful. Thus, an important feature of a social contract, assuming the normative goal of preserving individual liberties, should be the establishment of institutions and constraints which limit the incentives to organize and centralize power. A customary social contract can be quite effective in that regard, in the absence of external pressures such as military invasions by other organized groups (Benson 1990).

Austrian Capital and Interest Theory: Wieser's Contribution and the Menger Tradition

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Doctrinal investigation has now established that fundamental theoretical points of divergence separated the founder of the Austrian economics tradition, Carl Menger, and another leading Austrian economist, Eugen von Böhm-Bawerk. Böhm-Bawerk's capital and interest theory, in particular, stressed a degree of classical materiality and adopted a level of aggregation sharply in conflict with the basis of Menger's contribution (Endres 1987). As Streissler and Weber (1973, p. 231) speculate: "Böhm-Bawerk's Menger cannot be the whole Menger." Menger's successor in the chair of economics in Vienna was Friedrich Wieser.[1] On the occasion of the centenary of one of Wieser's principal contributions to economic theory—*Natural Value* (1889)—the time seems apposite to assess whether, and to what extent, the economic-theoretic legacy of Carl Menger endured in Wieser's work.[2] Standard renditions of early Austrian economics in history of economic thought textbooks usually suggest that Wieser's work can be placed squarely in the Menger tradition.[3] Indeed, going from Wieser's (1923) biographical account of Menger and from Wieser's (1891) survey of Austrian value theory, we should not be led to suspect otherwise.[4] However, Wieser's place in furthering the tradition of economic theory begun by Menger is impugned in Streissler's revealing analysis of Menger's contribution. Streissler (1972, pp. 429, 430) suggests that Menger's followers in the Austrian tradition, including Wieser, progressively "escaped" their master over time and "assimilated other traditions" with the consequence that "much of what was genuinely Menger's tradition got lost."[5]

It has been said of Wieser that he "occupies a position of indisputable importance in the history of economics" and that he "presented one of the best theories of capital which had emerged" in his time (Stigler 1941, pp. 158, 177).[6] Yet Wieser's (1889) theory of capital and interest which is later enunciated and extended in Wieser (1891 and 1914) is mostly

still unappreciated in the literature.[7] Instead, there has been extensive analysis of the putative apotheosis of "Austrian" capital and interest theory provided originally by Böhm-Bawerk in 1888 and as later refined by Wicksell (e.g., Kregel, 1976, pp. 28–33; Blaug 1978, pp. 498–569; Brems 1988). As well, Streissler (1972, pp. 434–36) concentrates exclusively on those elements in Böhm-Bawerk's capital and interest theory which possibly displeased Menger. To anticipate one of our conclusions, Streissler leaves out of account Menger's probable *sympathy* for Wieser's formulations of the capital and interest problem.[8]

Accordingly, in this article we give special consideration to Wieser's much-neglected capital and interest theory in order to assess its origins and composition, and ultimately to estimate the extent of Wieser's departure from the Menger tradition. We compare, as and where the detail of our exposition demands, Wieser's theory of capital and interest with other contemporary Austrian and non-Austrian treatments of that subject. Our attention will also be focused on the relations between Wieser's theory and the broad directions given by Menger for the construction of an adequate theory of capital and interest—a theory which, regrettably, Menger (1888 and 1950) left very much inchoate.

Wieser's Concept of Capital

The protean nature of the term "capital" in both economic theory and everyday use, necessitates extended discussion of the term in Wieser's work. Menger (1888) insists that economists should take cognizance of the popular, everyday concept of capital as a pecuniary magnitude; capital in this view is, for the *individual*, a fund of purchasing power which consists of money and productive assets calculated in terms of money.[9] Wieser (1889, p. 125 1n) complains, in deference to Menger's concept, that the popular concept is too broad because it encapsulates "all the parent wealth of an acquisitive economy existing in or calculated in money, without respect to the technical nature of the instruments of acquisition." Wieser searches for a universal capital concept applicable in a communistic state as well as in a private, acquisitive economy.[10] Thus, "to take note of those forms of capital which serve in the formation of income outside of production" as loosely implied in Menger's concept, is "too closely connect[ed] with the specific condition of the existing economic order of things" (Wieser 1889, p. 125 1n).[11] Wieser

rejects identification of the subsistence fund with capital *à la* Jevons and Böhm-Bawerk. The subsistence fund exists to maintain labor whereas capital must be associated with things upon which laborers employ their labor power. Therefore, the form of capital—"natural" or "productive" capital as Wieser terms it—is confined to "perishable or . . . movable means of production," in other words, to producers' technical means of production. Computations of the value of such capital may be made in monetary units. The implication is that Menger was led astray in identifying the monetary valuation of capital as substantially identical to the enduring content of productive or natural capital as Wieser (1914, pp. 296–98) understands it. Wicksell (1893, pp. 104–05) concurs with Wieser's view and adopts Wieser's definition in his own work.[12] Hayek (1941, p. 46) also finds Wieser's definition useful (see Figure 1).

Kinds of Resources	**Permanent (non-consumable)**	**Non-permanent (consumable)**
Non-producible ("original")	a	b
Producible ("augmentable")	c	d

Figure 1
Hayek's Delineation of Alternative Types of Capital
Source: F. A. Hayek, *The Pure Theory of Capital* (Chicago: University of Chicago Press, 1941), p. 58 2n.

Chronologically speaking, as far as definitions are concerned Wieser, Wicksell, and Hayek restrict the form and content of capital to *b* and *d* in Figure 1. Restricting the capital concept to non-permanent resources enables Wieser to state, and to attempt to solve, the "capital problem" under a specific set of stationary economy conditions.

The Capital and Interest Problem in a Stationary Economy

For Wieser, "one of the most important and difficult problems of economic theory [is] . . . to explain the fact that capital yields a net return" (1889, p. 124). Three sets of economic circumstances are distinguished. First, he conjectures that there was a period in economic history where there was "almost no capital," zero property in capital and therefore "zero of return from capital."

Second, and more pertinent to the economic system under consideration in *Natural Value*, there was the stationary economy case defined by a constant, positive net return to capital; a positive, "prevailing" or natural rate of interest; neutral time preference; and zero capital accumulation (1889, pp. 149–50). Third, a "progressing" or growing economy case is distinguished where there is a positive, possibly increasing, net return to capital; a positive, but fluctuating rate of interest which depends on the rate of technical change; and net capital accumulation (1889, p. 50; 1914, pp. 134, 348).[13]

Following Hayek's terminology in Figure 1 capital for Wieser is a stock of non-permanent resources which are periodically consumed and reproduced. Capital is designated "production" or "natural" if it yields a net return. Productive capital may permit production in a progressing economy to be maintained at a permanently higher level than would be possible without it. In a stationary economy, where there is no net capital accumulation (after reproduction and maintenance), the net return of capital is transformed into consumption goods (Wieser 1914, pp. 71, 134).[14] Capital productivity may have either a physical or value basis. Both physical and value productivity relate to Wieser's concept of the net return:

> Physical productivity exists where the *amount* of goods which form the gross return is greater than the amount of capital goods destroyed . . . Value productivity exists where the value of the gross return is greater than the value of the capital consumed. (1889, p. 126, his emphasis)

Proof of physical productivity is a necessary precondition for proof of value productivity. To resolve the capital problem the economist's ultimate task is to show that capital has value productivity.

In formulating the capital problem for the stationary economy Wieser postulates (implicitly) that all capital is completely consumed in the hypothetical production interval. The production process is repetitive but *not* statical—in the sense that production takes place in a time interval and in the sense that there is not strict simultaneity between the use of inputs and the production of outputs. *All* output arrives at the *end* of the production process, that is to say, at the end of the life of the capital goods. In short, we have a point input-point output theory of production. The amount of capital in use, both in terms

of volume and quality, is fixed for the purpose of simplification; there are fixed production coefficients and diminishing returns are inadmissable (Wieser 1889, pp. 125–44).[15] Output prices at the beginning of the production interval are expected to be constant, and in conditions of perfect certainty in the stationary economy, such expectations cannot be disappointed. One consequence of constant output prices is that physical and value productivity must be proportional. Wieser's theory of imputation is developed under these assumptions as early as 1884, and indicates that a portion of output must be assigned to capital. Following Thünen, capital is *asserted* to have a given net physical productivity, otherwise it would not be employed (Wieser 1884, pp. 139–41; 1889, pp. 126, 131).[16] Capital produces a gross physical product some of which—a physical surplus—is not consumed in production. In value terms the value of capital cannot exceed the value of the gross product. In Wieser's example, the

> materials . . . out of which . . . bread is produced, cannot possibly be worth more than the bread itself. And those things from which the materials . . . themselves are produced, and which, consequently, are the producers of bread one stage removed, have, in the prospective gross return—the perishable bread—a maximum limit of value. (1889, p. 140)

The physical or net return produced cannot wholly be absorbed by capital reproduction; thus if "from the value of 105, 5 are set aside as fruits which may be consumed without preventing the full replacement of capital, only the remainder of 100 can be reckoned as capital value" (1889, pp. 140–41).

In commenting on Wieser's 'solution' of the capital problem, Stigler (1941, p. 177) complains from a standard neoclassical equilibrium perspective that the assumption of constant output value

> eliminates the problem of the relation of physical to value productivity, and consequently ignores also the problem of effects of variations of factor supplies on their relative shares of the product.

Wieser's stationary economy is *not* formulated as a Walrasian or Marshallian-type equilibrium. He does not, in particular, envision inputs, including capital, along fixed market supply *schedules*

with the stationary behavior of the amounts of the factors actively used in production emerging *pari passu* with the fixity of all the unknowns of a solution as a consequence of a determinate general equilibrium system. This point is missed in Dobb (1973, p. 195) which, in evaluating Stigler's criticism of Wieser's 'solution,' maintains that Wieser may have been aware of the possibility that "an appropriate equilibrium-condition (e.g. equality of costs and revenue) can be postulated to allow for some *mutual adjustment* of product-prices and output and prices of producers' goods *in the course of reaching equilibrium*" (emphasis added). However, no such simultaneous mutual adjustment or equilibrating process is evident in Wieser's stationary economy. Wieser's (1889, pp. 86–92) elucidation of factor pricing in the "general imputation" process (where factors have alternative uses) provides the main ground for doubting the applicability of Marshallian or Walrasian equilibrium notions to his work. He emphasizes discrete, manifold, distinguishable units of producers' goods. In the stationary economy capital goods are not always readily substitutable with other factors; they exhibit strong degrees of complementarity and indivisibility.[17] As is well known, his "general imputation" theory assumes a number of unique optimal production coefficients—a number exactly equal to the number of factors. The assumption of fixed coefficients makes no allowance for variations in factor supplies during or between production intervals. Furthermore, the exclusive determinants or 'causes' of factor costs are final demands for consumer goods. (Thus, for instance, labor supply could not vary along some given supply schedule subject to the disutility of labor).[18] Brems (1986, p. 11) wrongly characterizes Austrian imputation theory, including Wieser's as,

> dealing with static general equilibria. In such equilibria, mathematics—even the rudimentary mathematics used by Walras—would have taught them [Menger, Wieser and Böhm-Bawerk] the lesson that a variable is neither the "cause" nor the "effect" of any other. All variables are determined on an equal footing and simultaneously, and all are the effects of the only causes found in the model, i.e., its parameters.

Following Menger in spirit and workmanship, Wieser's construction of imputation theory attempts in principle to remain consistent with the underlying ultimate or generative causes of

economic phenomena, that is, to isolate the simplest elements from the complexity of everything real. This Austrian philosophical position rejected any notion of *strictly mathematical determination* of variables in a static general equilibrium system. As demonstrated in the Menger-Walras correspondence:

> Having been taught by his father to regard universal concomitance and exact proportionality [between *raretés* and prices] as the criteria of causality, Léon Walras felt that his construction of an overall system of simultaneous equations bound together by the marginal utility principle had proved that *rareté* was the cause of value. Menger, on the other hand, thought that the object of economic research was to discover those laws governing market phenomena which can be traced back to their ultimate genetic determinants in man's . . . nature. Mathematics cannot do this. . . . (Jaffé 1976, pp. 521–22)

Wieser was also a captive of Menger's philosophic outlook. Wieser's method, like Menger's, was causal-genetic rather than mathematical-functional and causal relations were sequential for both writers.

The assumption of fixed production coefficients affects Wieser's results in the strong case, stationary economy context. It is precisely in this context that Wieser's capital and interest theory is developed. Beyond the strong case, Wieser (1889, pp. 89–90), like Menger (1950, pp. 162–63), recognizes both the diversity of possible factor combinations and the likelihood that these would outnumber the types of producers' goods available. He does not pursue the possibility of a determinate, static, general equilibrium solution which would have dealt with these complications. Stigler (1941, p, 170) therefore labels Wieser's theory of imputation "distasteful" since it is "overdeterminate" and derivation of a "stable equilibrium" solution is rendered impossible. Wieser's very recognition of heterogeneity in the sphere of production implies that equilibrium solutions for factor pricing of the kind desired by Stigler could not capture demonstrably more fluid and more concrete situations where factor combinations exhibited extreme diversity. Indeed, argues Wieser (1889, 90n),

> [a]mong all the different kinds of goods employed

> in production, it would be difficult to find one which . . . would always be combined with others according to the same unalterably fixed formula.

Moreover, in acknowledging that factor combinations are changing and changeable (Wieser 1889, 90n), it is implied that the problem of factor pricing may only systematically be discussed as a disequilibrating process.[19] Lastly in this connection, to suggest, following Stigler (1941, p. 170), that Wieser's assumption of constant output prices is equivalent in content to assuming that final demands are infinitely elastic along a determinate, continuous, demand schedule, attributes more to Wieser's work than is textually supportable. Demand *schedules* are not evident in Wieser's sketch of the stationary economy; the potential for 'stationary'-like movements along either a fixed demand or supply schedule as a consequence of an *emergent*, equilibrium solution is not contemplated by Wieser since he reduced notions of supply and demand to *single* point, price-quantity relations. The economy is already at rest; factors are already optimally arranged as far as Wieser is concerned.[20]

We turn now to the related problem of interest on capital. How does Wieser explain it? Interest on capital and 'profit' coincide in the stationary economy.[21] Interest expresses some "definite relation between capital value and net return." An interest *rate* is the percentage of net increment to capital employed in a specific production interval. In a stationary economy in a large number of "connected" cases of production *the* rate of interest is the general percentage of increment to all capital in the market (Wieser 1889, pp. 141, 144). Wieser is guarded about generalizing the rate of interest to all forms of property, perhaps heeding Menger's earlier warning (Menger 1888, p. 181). Wieser restricts his analysis of interest to producers' capital.[22] Nevertheless there are allusions in *Natural Value* to possible equalization of interest rates in the strong stationary economy case, between interest on various forms of producers' capital and on consumption loans, and, on another level, equalization between money market rates and rates ruling in markets for different types of producers' capital. Effectively, the demand and supply of money and the demand and supply of producers' capital are regarded as identical. In the stationary case, the equalized natural rate of interest is determined independently of monetary factors, and solely by the rate of return on capital invested in producers' goods. The

amount and value of capital goods is brought into strict conformity with the costs of producing them, thus regulating the interest rate (Wieser 1889, pp. 145, 155ff).

Time preference is allowed to vary between individuals but the net societal effect is to value present goods as equal to future goods of like quantity and quality. Time preference is therefore neutral and not apparently relevant in explaining *the existence* of a positive rate of interest (Wieser 1889, pp. 16–19; 1914, p. 131). Instead Wieser adopts another ground for *explaining* interest as if it were a sufficient condition for a positive rate of interest to obtain in a stationary economy as he conceives it. That is, he appeals to the inherent productivity of capital as a cause of the differences in valuation in the present and in the future.[23] Wieser's productivity theory of interest is founded upon the assumption that the net physical productivity of capital, which cannot directly be observed, has been established by imputation, supplemented if necessary by introspection if the logic of his imputation theory is not fully accepted.[24] A net physical return on capital creates a value discount on the future. For Wieser, *present* possession of capital was equivalent to having received a net return from the use of that capital in the immediately *preceding* production interval. In a stationary economy possession of capital at a *future* date (the end of the next production interval) guaranteed the same net return but at the *end* of that interval.[25] Therefore, if

> *wants are continuously to find the same satisfaction, equal amounts of return* must continuously be produced. And if equal amounts of return are continuously produced, capital must remain continuously the same in substance. But if capital is actually to remain the same in substance, and so is able to yield continuously *the same returns*, this must find expression in a valuation which ascribes to capital a higher value, the *earlier* point in time it comes into our possession. For the earlier point of time, the earlier and consequently the greater, the return that may be expected. (Wieser 1889, p. 143, emphasis added)

This passage is hardly unambiguous. Indeed, Wieser might be mistakenly arraigned for introducing dynamic elements into his theory of interest which contradicts conditions outlined earlier for production in a stationary economy. The notion of

'continuous' renewal of capital substance is misleading if taken too literally. To remain consistent with his concept of stationariness we must think of discrete, hypothetical production intervals. Whatever the length of the production interval the economy "shows neither progress nor retrogression." Constant returns in *value* terms for any particular stationary economy are ultimately determined by "future need values" which do not change (Wieser 1914, pp. 71, 141). Capital in Wieser's sense is used-up completely in each interval and, from interval-to-interval, in order for production to *recur*, interest presumably exists in order to ensure reallocation of the same 'capital substance' to the same uses as in previous intervals. This is to say also, that a positive net yield on capital is required to ensure capital reproduction and therefore to keep the 'stationary' economy 'stationary' in Wieser's sense. For heuristic purposes the stationary intervals themselves may potentially have different hypothetical durations which completely depend, correspondingly, on the assumed physical productivity of capital.

We are now in a better position to comprehend the preceding passage quoted from *Natural Value* (p. 143). In that passage, Wieser is implicitly comparing recurring production processes in a stationary context; each process yields the same constant *physical* product at the *end* of each production interval, but each is characterized by different production intervals and therefore by different qualities of capital.[26] Wieser suggests, in other words, that capital employed in a shorter production interval and which yields the same physical rate of return in each recurring interval, has a higher *value* productivity than capital with the same physical productivity but which takes a longer production interval. This interpretation has two important implications. First, Wieser *presupposes* a positive interest rate; he does not prove that the interest rate will be positive. Second, a higher opportunity cost of waiting is entailed for the same physical returns that arrive at the end of a longer production interval. Interpreted in this way, Wieser's 'explanation' of interest in his model of the stationary economy does not admit diminishing returns. By contrast, in Böhm-Bawerk's well-known explanation of the reason for a positive rate of interest, present capital goods yield a larger physical product than an equal quantity of future capital goods at a future date applied to roundabout production because of diminishing returns from a lengthening production interval. Parenthetically, there is a "period of production" notion in Wieser's theory although *not*

one which involves the *introduction* of more productive time-consuming processes. Wieser's production interval is one characterized by a given production process yielding constant physical returns.

Despite Wieser's attempt to assert neutral time preference, we cannot avoid the implication in his stationary economy that a degree of impatience is involved on the part of producers who have rights of possession (entrepreneurs or central planners as the case demands) over a given volume of capital of the same quality (as opposed to capital of lesser quality) which is merely periodically duplicated. Furthermore, it seems for Wieser that these possessors avowedly desire quicker physical returns, and thence greater value returns, over successive recurring production intervals. In respect of *consumers* in a stationary economy Wieser is more explicit but does not recognize an inconsistency with his earlier pronouncements repudiating any significant role for time preference:

> consumption goods are available only as such and are useless for anything else. However, the latter may be turned over into consumption goods *more or less slowly*. The *more rapidly they are despatched*, the sooner will the new production process have to be set on foot. (Wieser 1914, p. 132, emphasis added)

His position on the existence of interest in a stationary economy would have been more defensible if he had given time preference a more central role. Instead, the order of his 'explanation' of interest makes productivity causal and primary; time discount is merely the resultant. Capital productivity, in other words, has exclusive influence on comparison of present and future gratifications. The burden of Wieser's *explanation* of interest therefore rests precariously on the existence of a technical net productivity of capital.[27]

Capital and the Trend of Interest in a Progressing Economy

In reading Wieser's work we find that the stationary and progressing economy form two separate, though not competing, stages of exposition. Fragmentary discussion of the progressing economy is evident at frequent points in *Natural Value*. It is more fully enunciated in *Social Economics*, a work recently dubbed "the

definitive textbook of the Austrian School" for the early decades of the twentieth century (Streissler 1987, p. 921). In a dynamic "progressing social economy" discussed extensively in *Social Economics*, capital is both reproduced and augmented (Wieser 1914, p. 71).

In outlining the simple stationary economy in *Natural Value* and again in the early sections of *Social Economics* Wieser always appears to be ready to break out of the strong case theorizing which is required of him. First, his discussion of the physical productivity of capital shows acute awareness of the *varieties* of capital goods which complicate calculations of a return to capital *as a whole* even though such a return may be imagined in principle (Wieser 1889, p. 133). Second, competition will assist in generating movement toward a uniform, natural rate of interest across the economy, but institutional impediments often conspire against such an outcome. He exclaims, for example, that

> the individualism of our present economic order distributes production among individual undertakings . . . yet at how many points do we find great gaps; how many dislocations through excessive accumulation of means of production at the wrong places; how often things go too quickly, how often not fast enough! (1889, p. 145)

Third, in circumstances of "private ownership" the money markets and capital goods markets are not always well-synchronized; under a "communistic regime" the central planner's calculation of *a* general interest rate may be easier in the absence of a private commercial money market (1889, p. 144). Private money markets are buffeted by alternating and irregular periods of "intensive activity" and of "quiescent business" such that commercial money rates of interest can exhibit a high variance in the short period, that is, "within a year" (Wieser 1914, p. 348). Time horizons and associated contractual obligations in the market for money credit destined for more permanent productive investment are much longer and substantially different from horizons which normally obtain in the market for consumption loans. Wieser is therefore driven to doubt the applicability of his Law of the Equalization of Price, and of interest equalization in particular, in the dynamic, progressing economy. He doubts the existence of a single loan interest rate which through the action of strong equilibrating forces, is adjusted into conformity with a common market rate of

interest on all forms of income generating assets, broadly conceived. In the case of money and capital markets:

> [e]ven with complete security of the loans, the *interests of the different groups are too diverse* as regards the period of the loan and a number of other conditions for a central market to form in which the law of the unity of price might prevail. (Wieser 1914, p. 304, emphasis added)

An undeniable implication here is Wieser's leaning toward the Marxian view that interest rates on money capital are determined temporarily and perhaps permanently by causes which are independent of what happens to the rate of interest on producer's capital.[28] As well, Wieser is also aware of Menger's view expounded in "Zur Theorie des Kapitals" (1888), which insists that the rate of interest on money markets, the yield on industrial capital, and the yield on other categories of income bearing assets "need separate explanation each according to its nature and its different origins. The problem of the return on property (*Vermögensertrag*) is, for practical purposes . . . in no way synonymous with the problem of interest" (Menger 1888, p. 181). Wieser's sympathy toward both the Marxian and Mengerian views places his theory of interest, especially in *Social Economics*, outside the typical marginalist tradition in economics which included Jevons and Walras and which recognized first, that money rates of interest could vary only temporarily from some natural rate, and second that the money rate was determined exclusively by the rate of return on various forms of producers' capital. *Per contra*, Wieser leaves the way open for the possibility of monetary influences on the latter. No longer can we be sure after reading relevant sections of *Social Economics* that a permanent change in the money market interest rate would affect costs of production in the same manner, and would ultimately amount to the same thing as, a permanent, equivalent change in the rate of interest (or profit) on producers' capital.[29]

Wieser's Law of the Equalization of Price (*Gesetz des Priessaus gleiches*) is certainly an important analytical device in the *Ursprung* and in *Natural Value*. Streissler (1972, p. 438) interprets the law as "rather evocative of a process leading to equilibrium, not of equilibrium itself." The fact that Wieser jettisons his Law in respect of pricing in money and capital markets in the progressing economy context in *Social Economics*,

adds further weight to the proposition that he *not* be classified as a typical, fledgling, equilibrium economist who wished generally to *determine* equilibrium price and analyze equilibrium positions. His affinity with Menger in this connection is more striking than has been recognized hitherto.[30]

In *Natural Value* there are allusions to "solitary" instances of rises in interest on a particular form of capital input (perhaps because of a one-off invention but Wieser is not explicit), while the prevailing rate of interest remains unaltered on other capital goods. Furthermore, alterations in the prevailing rate may result from "changes in supply, in demand [and] in technique" (1889, pp. 147, 150). *Universally* adopted inventions, for example, "would cause a general rise in the net return to capital" *relative* to "those capitals which had no part in the effects of the invention" (1889, p. 150). In a progressing economy an increase in the amount of capital of the same kind as used before necessarily leads to a decline in the interest rate; a simultaneous increase in new varieties of "specific capital" will counterbalance this effect (1914, p. 140). Here Wieser is clearly aware of the fact that inventions and improvements are not introduced at one fell swoop. Wieser is noncommittal about the certainty and regularity of changes in the quality of capital; it is precisely this outlook which lends itself to an open-ended serial process analysis rather than equilibrium theorizing. Indeed, such a process comes to the fore in Wieser's distinction between interest on capital and entrepreneurial profit—the latter being positive only in the progressing economy (1914, pp. 355–56). For Wieser, profit is not to be confused with *regular* wages of management, although such wages form part of entrepreneurs' income. Economic progress requires rare skills—necessary for "a specific command of capital[;] . . . specific in its unique character or else in its magnitude." These skills return a profit so long as they have not become "common property." Entrepreneurs also secure a preferred market position of a specific character for their enterprise. In their superior leadership they were originally "pioneers of unusual ability and training, combining technical knowledge and capacity with market experience and organizing power" (1914, pp. 356, 357). Such power coupled with the "talent of economic leadership" often gets its return from capital gains on property; from audacious innovations; from promotion of joint stock companies and from various forms of "creative speculation" and arbitrage activity which assist in the process of price *formation* (rather than full determination in a mathematical

sense) in a progressing economy (1914, pp. 357–66).

In the case of diverse types of *fixed* capital where "instead of one single future return there are several returns," Wieser maintains that in the ideal stationary economy case these returns are determined by discounting using the uniform natural rate of interest determined in respect of circulating capital. However, Wieser leaves room for expectations and uncertainty. The complications introduced by "uncertainty [as to] . . . whether the returns expected will actually be received at all" made calculation of the value of fixed capital subject to some uniform interest rate, more difficult in the progressing economy. Insurance is mentioned as one way out of the dilemma, although Wieser does not indicate that such a device could be effective in all cases where uncertainty appears (1889, p. 152). In addition, vast aggregations of, indivisible items of fixed capital ("mammoth capital") in a dynamic, advanced capitalist economy tend to thwart competitive pressures making for a natural, equilibrium rate of interest on the use of such capital (Wieser 1914, pp. 209–10).

The process of new capital formation in a progressing economy where there is widespread monetary calculation and exchange is represented in Wieser's work as a complex time consuming exercise "distributed over a large number of individuals" (1914, pp. 298, 299–303). It involves distinct capitalistic and entrepreneurial activities. In the first place, a supply of new savings has to be forthcoming although the *economic* mechanism to encourage savings such as an interest rate incentive, is not given much emphasis.[31] Second, "money capitalists" advance money capital to consumers and to "speculating" capital-employing entrepreneurs. The latter, in advanced forms of capitalistic economic organization, may also assume the role of money capitalists. Entrepreneurs cannot usually employ productive capital until capital goods are purchased from capital-producing entrepreneurs, who in turn may also require money credit from money capitalists in order to make their enterprises into going concerns. In short, money and credit facilitate the accumulation of productive capital in Wieser's sense. Money and credit could also potentially prove an obstacle to capital accumulation depending on the conditions—including power relationships and state regulations—of trading on financial markets.[32] There are rudiments here of a monetary theory of the rate of interest (or profit) on productive capital; it is merely a glimpse made apparent by Wieser's

terminology. Finally, only when capital-employing entrepreneurs actually realize a (previously prospective) net gain from the use of productive capital can capital formation be said to have taken place (Wieser 1914, p. 299).

The long-run movement of *the* interest rate on capital in the progressing economy is not well charted in Wieser's analysis. Indubitably, he follows English and German classical economists in believing that the rate of interest displays a clear, downward secular trend.[33] In *Natural Value* he argues that the interest rate "rises from the beginning" and goes on "growing so long as the economic world thrives" (1889, p. 151). This is apparently contradicted in *Social Economics* where it is insisted that "[d]uring *the entire course* of economic development the trend of the rate of productive interest is downward" (emphasis added). Despite all technical progress, continues Wieser, "the increase of capital reduces its marginal yield" (1914, p. 348).[34] Wieser's meaning is hardly straightforward; the meaning lies between as much as within the lines. Successive increases of capital of the *same* quality would, it appears, lead to diminishing returns. Is this Wieser's likely meaning, otherwise technical progress could carry on indefinitely to keep up the trend of interest rates or at least keep the interest rate from falling? Textual interpretation is not assisted by another passing statement Wieser (1914, p. 357) makes implying that there is an intrinsic limit on investment opportunities in a progressing economy—a limit approached as productive capital becomes more abundant. Nowhere, incidentally, does Wieser suggest when remarking on the likelihood of a falling rate of interest in a progressing economy, that the interest rate would eventually fall to zero, and the possibility that a zero rate may be approached asymptotically is not broached (1889, p. 151; 1914, p. 348). At least partial reconciliation of Wieser's scattered statements on this matter rest on drawing a distinction (which he often does) between isolated "specific capital" investments incorporating particular inventions on the one hand, and "universally effective invention" or the most generally adopted technique on the other (1889, p. 150). The former are not sufficient to keep up the general interest rate, although individual entrepreneurs who first adopt a new technique would, for a while, reap the higher net profit return on specific capital investments. Wieser's distinction is probably due to his reading of Marx, to whom Wieser pays tribute in the *Ursprung* (1884). Streissler (1987, p. 921) notices that some of Wieser's "terminology" owes something to Marx; here we are

suggesting that Wieser's general outlook on long run economic development presupposes a law of the falling rate of interest or profit which had classical and of course, Marxian connotations. Of these connotations Wieser was doubtless aware. He does not exaggerate the differences between his economic-theoretic innovations and those of his classical predecessors.[35] Wieser (1889, pp. 200ff) definitely aims to refute the labor theory of value and Marxian exploitation theory, although the refutation was nowhere near as successful and uncompromising as Böhm-Bawerk's well-known critique. And, of course, Wieser is a critic of Ricardian theory although it should be remembered that he uses *classical* differential theory to 'explain' returns to factors other than land in his analyses of "specific imputation" problems where factors had no alternative uses.

Wieser's Hybrid Capital and Interest Theory in Retrospect

On the occasion of the third edition of *History and Critique of Interest Theories*, Böhm-Bawerk (1914, pp. 411ff) pays obeisance to the "marked individuality" of Wieser's capital and interest theory although he is not prepared to accept its validity. Wieser (1914) appears to have remained impervious to Böhm-Bawerk's earlier criticisms, thus inciting Böhm-Bawerk (1914, p. 484 40n) to provide another critique. We have already mentioned Wieser's penchant to assume, implicitly, what he proposes to prove in attempting to *separate* a net return of capital from the net return attributable to other factors. Böhm-Bawerk (1914, p. 415) expresses this problem with Wieser's "proof" as follows:

> It is true that a *net return of production* . . . is concededly present when the total gross return yielded by all three collaborating factors exceeds the value of the capital consumed. But a *net return of capital* is not present until the individual *aliquot share* which is attributed to capital out of the gross return exceeds the capital consumed. And the existence of the first condition, by very reason of the radical difference in the presuppositions, leaves absolutely no ground for inferring the existence of the second.

Böhm-Bawerk grants that Wieser's "general imputation" theory

ascertains the portions contributed by the various factors to *gross* product. A theory of interest on capital must, by contrast, show the portion of *net* product contributed by the factor "capital." Wieser always maintains, by assumption, that capital in the stationary economy would not be employed if it did not produce net physical and value productivity. Such an assumption rests, in the final analysis, on introspective knowledge—on adequate *understanding* of producers' concrete *plans* which always include an "interest" category. Böhm-Bawerk (1914, p. 415) notices that Wieser may wish to fall back on this ground, *viz*., the supposition that the economist "knows as a fact within our experience that the portion of the gross return attributable to capital exceeds the amount of capital consumed." On the demand side Wieser had already given much weight to the economist's casual, introspective knowledge in constructing and evaluating the theory of consumers' wants and diminishing marginal utility. However, in this connection, Böhm-Bawerk (1912, p. 430 81n) warns that Wieser appears "to go somewhat too far" in relying on the methods used by "psychological laymen." These methods, according to Böhm-Bawerk, Wieser uses as explanatory devices when the powers of pure psychology (*Wissenschaftliche*) and of pure economic theory provide a sounder basis for a proper scientific treatment. Böhm-Bawerk (1912, p. 195) had originally judged that Wieser meant only that the "training of universal experience" offered "relatively superficial facts" which economists needed to explain with *other* methods. Now he was no longer so sure of that judgment.

If Wieser's capital and interest theory cannot firmly be located in the Böhm-Bawerkian, 'Austrian' tradition then what were its doctrinal origins? An heirloom from von Thünen—a simple productivity theory of capital—is Wieser's explicit point of departure. Wieser's imputation theory, from which his theory of capital and interest is further developed, is motivated by lacunae in Menger's approach to imputation based on the "loss principle." Wieser values capital inputs assuming fixed coefficients while simultaneously capturing important aspects of interdependence between production processes and aspects of factor complementarity. Böhm-Bawerk, on the other hand, avoids explicit analysis of interdependence between production processes, instead reducing capital inputs to dated labor quantities. In the theory of the *stationary economy*, Wieser (a) does not give coordinate rank and mutual influence as between technical productivity and time preference; (b) he conceives of

the interest problem as connected only with produced means of production as did German classical economists; and (c) he systematically formulates by way of imputation theory, the specific productivity or productive contribution of each factor input—the productivity of capital, in particular, serving to 'explain' both the amount yielded by a group of capital goods and the rate of yield calculated on the valuation of the principal or capital substance. In respect of (a) he is at one with Menger but inconsistent with Böhm-Bawerk. Wieser's orientation in both (b) and (c) earned the fervid denunciation of F. A. Fetter (1914), the Austro-American theorist and contemporary of Wieser who developed interest theory along pure time preference lines. As for (c), Wieser has many points in common with J. B. Clark (Fetter 1927, p. 272). Lastly, in considering the mixed origins and allegiances of Wieser's capital and interest theory, our study would not be complete without investigating F.H. Knight's (1950, p. 31) tribute to Wieser's theory as being far "sounder" than other Austrian theories on the subject. First, for Knight, time preference plays no role in the determination of the rate of interest—a rate which in his view always remains positive since, conceptually, a zero limit could not be reached. Second, Knight argues that the ability of capital to yield services—its productivity—becomes the basis for interest, the rate of which is defined as the "anticipated productivity ratio" (Knight 1916, p. 298). Third, Knight (1934) also conceives of production as involving a collection of highly specific, complementary capital goods. These three facets of Knight's capital and interest theory have much in common with Wieser's, so it comes as no surprise that Knight liked Wieser's theory.

It remains for us to draw attention to the place of Wieser's capital and interest theory and certain other related components of his economic thought, in the early Austrian tradition. Noteworthy is Hennings's (1986, p. 232) authoritative survey which makes out a case, first, for distinguishing Wieser and Böhm-Bawerk on the reasoning that Wieser places "less emphasis" on the temporal nature of production than Böhm-Bawerk.[36] Following our account of Wieser's theory, this interpretation deserves qualification. Hennings's claim is valid in relation to the stationary economy model; Wieser's concept of stationariness implicitly excludes consideration of the effects of temporal integration of production processes in the Böhm-Bawerkian sense. In Wieser's stationary economy the Law of the Equalization of Price prevails and the separation of monetary

from real variables is complete. However, close textual study reveals Wieser's impatience with attempts at explaining and refining the logic of the stationary case. He is led perforce to consider at length production in a progressing economy where temporal issues, indeed real historical changes, are pervasive.

Hennings's (1986, p. 237) second conclusion is that "Menger, Böhm-Bawerk and to a lesser extent Wieser, were much more concerned with disequilibrium processes" than early equilibrium economists who dealt with production theory. Again, this is not an accurate portrayal of Wieser's concerns relative to Menger's and Böhm-Bawerk's, especially if his *Social Economics* is given the studious attention it deserves. It should be remembered that *Social Economics* was Wieser's "last and ripest message on pure theory" (Schumpeter 1951, p. 300). Our explanation, which includes consideration of *Social Economics*, demonstrates Wieser's concern for everchanging production plans and uncovers his suggestive hints relating to the strategic influence of monetary factors on these plans in the progressing economy. We have seen how Wieser's capital and interest theory is a special hybrid, composed in other words, of mixed doctrinal elements, although on many fundamental points his work remains closer to Menger's than Böhm-Bawerk's. Wieser's avowed intention not to overgeneralize the interest concept suggests, like Menger, uneasiness with the notion of interest as a broad macroeconomic category. Very much like Menger, Wieser justifies a return to capital from its function as a unique cooperating element in production. While process analysis in the *Ursprung* and in *Natural Value* is diffuse and subdued, Wieser nevertheless makes some portentous digressions on such matters as the diversity of factor combinations; the tendency of factor combinations to change and on the general discontinuous nature of production functions. Furthermore, Wieser is not generally inclined to reason in terms of continuous, determinate schedules of demand and supply. In *Social Economics* Wieser's more generous allowance for disequilibrium processes *à la* Menger is exemplary.

It would be misleading to draw the comparisons between Wieser and Menger too favorably such that the former might be placed squarely in the Menger tradition. Nonetheless, the existing historical record has neglected points of theoretical convergence between these two leading 'first generation' Austrians. After all, Menger was not moved to make the charge of a 'great error' in regard to Wieser's construction of a capital and interest theory, as he was to do in Böhm-Bawerk's case

(Schumpeter 1954, p. 847n). Wieser not only remained loyal to Menger's subjective theory of value; he heeded Menger's fragmentary adumbrations for developing a coherent theory of capital and interest. Wieser subsequently produced a hybrid theory which revealed certain distinguishing characteristics inherited from Menger. These characteristics were particularly discernible, although not exclusively so, in the variant of Wieser's theory which applied to a progressing economy. Wieser's break from the Menger tradition was therefore neither as fundamental nor as decisive as Böhm-Bawerk's.

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[1] For two recent general appreciations of Wieser and his work see Streissler 1986 and 1987.

[2] Wieser 1889 was an elaboration and refinement of Wieser 1884. The latter is well-known for introducing the equi-marginal principle into the theory of production and for its subjective cost theory.

[3] For example, Hutchison (1953, p. 153) argues that Wieser (1889) bears "strong family resemblances to Menger's *Grundsätze*." Rothschild (1973, p. 209) is of the view that "Wieser built on his [Menger's] foundations."

[4] See also the "Preface" in Wieser (1889, especially pp. xxxiv–xxxv).

[5] An example, as Streissler and Weber (1973, p. 227 4n) explain, is Menger's monetary theory for which Wieser, when rewriting Menger's article on "Money" for the *Handwörterbuch der Staatswissenschaften* substituted an entirely different version.

[6] Cf. Knight (1950, p. 31), who praises Wieser's capital theory, regarding it as "sounder" than both Menger's and Böhm-Bawerk's views on the subject. Knight (1935, p. 158) also pays tribute to Wieser's theory of interest.

[7] Two exceptions in recent literature are Rothschild (1973) and Streissler (1987) which touch *tangentially* on matters of concern in this article.

[8] To be sure, Streissler and Weber (1973, p. 229) allude, all too briefly, to one crucial theoretical point of separation between Menger and Wieser: Menger's "vision of production was a time consuming multi-stage process—an approach that did not appeal to Wieser."

[9] On Menger's concept compared with Böhm-Bawerk's see Endres (1987).

[10] Cf. Wieser (1914, p. 62): "All references . . . to the nature of capital must be such as will meet the approval not only of the supporters of the existing order but also the most radical apostles of socialistic views. To accomplish this, it is necessary to eliminate from the current, practical concept every reference to the pecuniary form of capital and to private property."

[11] Cf. Schumpeter's (1934, pp. 120–21) remarks on Menger's concept. For Schumpeter capital includes various means of payment and other circulating media which serve to provide entrepreneurs with control over capital goods.

[12] In drawing a distinction between capital and non-capital, Wicksell (1893, p. 105) rejects Böhm-Bawerk's division between the aggregate of intermediate goods (social capital) and a national subsistence fund (national capital) in favor of Wieser's view that capital "must be more related to the 'consumability and mobility' and therefore ready availability and utilization of capital-goods in the narrower sense."

[13] The stationary and progressing cases are often discussed side-by-side in Wieser's work. For example, see the discussion of capital value and interest in *Natural Value* (1889, Book 4) and in *Social Economics* (1914, pp. 29–35).

[14] In a stationary economy "capital is used only to bring forth consumption goods. In a progressing society it is also used to bring about an increase of productive commodities" (Wieser 1914, p. 71).

[15] It is as if Wieser is maintaining that the conditions of capital supply are fixed by nature. Cf. Stigler (1941, p. 174), who states rather imprecisely that "the total supply of capital" is assumed fixed in Wieser's theory. Wieser, it should be emphasized did not assume that the amounts of capital in use could be varied in a stationary economy; there was no given supply *schedule* of capital evident in Wieser's stationary economy model. Similarly, Robbins (1930, p. 208) states that Wieser was "assuming fixity of supply" by which, Robbins proceeds to explain correctly, is meant that a fixed volume and quality of capital is assumed to be in use. No allowance is made by Wieser for flexible supplies along a given capital supply schedule; instead, he reasons in terms of *single* point price-quantity relations.

[16] Wieser comes dangerously close to assuming what he originally aims to prove at this point. See Böhm-Bawerk's (1914) criticisms of Wieser's procedure, also detailed in the "Wieser's Hybrid Capital and Interest Theory in Retrospect" section below.

[17] As Rothschild (1973, p. 219) observes, Wieser could be regarded as a forerunner of economists in the twentieth century who reasoned in terms of a finite number of production plans and in terms of discontinuities or "corners" in aggregate production functions (e.g., Leontief, linear activity analysts).

[18] See Edgeworth's review of *Natural Value* in Edgeworth (1925, pp. 51–52). For a more recent account see Rothschild (1973, p. 216).

[19] Mathematical refinement and "analytical sophistication" may well have allowed Wieser to produce a more

determinate, equilibrium (even Wicksellian) solution for this imputation theory, as Rothschild (1973, pp. 220–23) demonstrates. Considering what Wieser (1914) has to offer, it is seriously to be doubted whether Wieser would have been comfortable with intellectual concentration on the stationary economy and the general imputation theory with which stationariness was associated. Wieser (1914) hardly shows unstinting devotion to equilibrium theorizing.

[20] Cf. one of Dobb's (1973, p. 196) suggested interpretations of Wieser's procedure where it is conjectured that it resembled Marshallian short-period equilibrium analysis. Again, this interpretation cannot be sustained since the Marshallian short-period allowed producers' decisions to alter quantities of inputs supplied with respect to price and marginal cost (Marshall 1920, pp. 314–15, 412).

[21] In the dynamic, progressive economy, interest and profit become different income categories. See the "Capital and the Trend of Interest in a Progressing Economy" section of this paper.

[22] It is essential to recall Wieser's concept of natural capital at this point. It excluded durable consumption goods including "material possessions of service trades and goods rented for use [e.g., dwellings] and including loan-capital for lending on these goods" (Wieser 1914, p. 297).

[23] That the asserted technical productivity of capital is neither a necessary nor a sufficient condition for explaining the existence of a positive rate of interest in a stationary economy (following Irving Fisher) is now very well known, and need not detain us here. For a standard textbook treatment see Blaug (1978, pp. 531–32).

[24] Wieser would not have been deterred by criticisms of his imputation theory. His case that capital yields a net return and that interest represents the net increment of capital could, he believed, be clinched by facts gleaned by the method of introspective psychology. In "testimony to . . . [the] correctness" of his capital and interest theory Wieser had merely submitted "axioms which every layman recognises," "axioms of ripened experience" (1889, pp. 143–44).

[25] Thus "capital which, in twelve months from the date of possession yields the same gross return (say 105) and the same net return (say 5), is valued at the date of possession at the same amount (say 100). It is, nevertheless, not a matter of indifference whether the capital comes into possession now or only at the end

of the twelve months inasmuch as possession now guarantees a return of interest besides" (Wieser 1889, pp. 142–43).

[26] This conclusion is in broad agreement with Wieser's theory of imputation which uses fixed coefficients. Every form of capital of better quality than another has a higher return imputed to it. In comparing qualities of capital it is the net return that decides the imputation (Wieser 1889, pp. 131–33).

[27] All this relates to interest on productive capital. Interest on consumption loans cannot be *explained* by productivity as Wieser (1891, p. 116 1n) expressly recognizes. Wieser explains interest on consumption loans in *psychological* terms, comparing the needs of debtors with those of creditors.

[28] Incidentally, Hilferding's *Das Finanzkapital* (2nd edition) is listed among Wieser's (1914, p. 238) references in the section on money and credit.

[29] On the disjunction between "interest" and "profit" (or the rate of return on producers' capital) in the history of economic thought, see Panico (1987).

[30] For an account of Menger's departure from equilibrium economics in the strict sense, see Streissler (1972), Mirowski (1984, pp. 370–72) and Vaughn (1989).

[31] Ethical reasons for saving are instead brought to account, *viz.*, the "spirit of self-denial" and "deprivation" (1914, p. 300). An interest rate factor is mentioned *en passant* much later (1914, p. 350).

[32] Wieser's position is remarkably close to Menger's on this matter. Both appreciate the function of *money* as a mediator and potential obstacle to the trade in capital goods. See Menger (1936, p. 59). It is disappointing as Roll (1936, p. 456) correctly reports, that Menger's "description of the role of money in the capital market is . . . not as suggestive of further analysis as other parts" of Menger's work on money.

[33] Cf. Schumpeter (1934), originally published in 1911, which is not mentioned in Wieser's (1914) references (e.g., 1914, p. 30) where it might have been expected. Schumpeter, by the way, labels the classical line of the secular trend of interest as a "dogma" (1934, p. 210).

[34] Cf. also Wieser (1914, p. 350): "the rate of interest is lowered owing to the continuous increase of capital."

[35] As Wieser (1889, p. xxxiv) admits in respect of the German classical school: "in great part, the German school long ago formulated the conceptions, leaving for us only the task of filling them out. . . ."

[36] Streissler and Weber (1973, p. 229) concur with Hennings insofar as they maintain that Wieser would not have liked Menger's view of production as a time consuming, multi-stage process.

New Classical and Old Austrian Economics: Equilibrium Business Cycle Theory in Perspective

Roger W. Garrison

The recent flourishing of New Classical economics, and especially its Equilibrium Business Cycle Theory (EBCT), has given a fresh hearing to the Old—but still developing—Austrian Business Cycle Theory (ABCT). While the New and the Old differ radically in both substance and methods, they exhibit a certain formal congruency that has captured the attention of both schools. The formal similarities between EBCT and ABCT invites a point-by-point comparison, but the comparison itself dramatizes differences between the two views in a way that adds to the integrity and plausibility of the Austrian theory.

In modern macroeconomic literature, the label EBCT is applied sometimes so broadly as to include New Keynesian as well as New Classical constructions and sometimes so narrowly as to preclude the very developments within the New Classical school that are most closely related to ABCT. So-called Real Business Cycle Theory, in which cyclical movements of macroeconomic variables are characterized by both market clearing and Pareto optimality, is sometimes designated as the only true equilibrium construction. The comparison of New Classical and Old Austrian theories is best facilitated by letting EBCT refer to those theories in which (a) individuals make the best use of the information available to them and (b) an informational deficiency temporarily masks the interventions of the monetary authority. As exposited by Robert Lucas (1981), Robert Barro (1981) and others, EBCT so conceived accounts for business cycles in terms of the actions of market participants confronted with what has come to be known as a signal-extraction problem. Difficulties in interpreting price signals during a monetary expansion also lie at the root of ABCT as introduced by Ludwig von Mises (1953) and developed by Friedrich A. Hayek (1967).

Comparing Lucas's EBCT with Hayek's ABCT, R. W. van Zijp (1990) argues that Lucas is not a Hayekian on the grounds of the differing goals of the two theorists. Hayek sought to explain the business cycle in terms of a multitude of partially conflicting individual plans; Lucas seeks to predict the behavior of the "representative individual" during the course of the business cycle (p. 20). Kim Kyun (1988) provides an historical perspective by finding links between modern EBCT and business-cycle theories of the inter-war period. He concludes that the New Classical economists have so revolutionized the style of argument that their ability to challenge old views and deal with key issues is seriously restricted (pp. 112–14). William Butos (1985) assesses the claims that Hayek pioneered modern EBCT and finds them misleading. While Hayek took the equilibrium relationships established by price theory as the point of departure for his business-cycle theory, the technique-bound EBC theories take those same relationships to be effective constraints throughout the course of the business cycle (pp. 337 and 341). These treatments of the relationship between EBCT and ABCT are mutually reinforcing and are consistent with my own Austrian perspective on New Classicism (Garrison 1986, pp 443–45; 1989, pp. 19–23).

Substance and Method

It is possible to describe a business cycle in such general terms that the description is consistent with both EBCT and ABCT yet distinct from, say, Keynesian and Marxian theories. The common ground can most easily be identified in terms of the reactions of market participants to a price change whose origins are possibly real, possibly monetary, or possibly both. Similarities between EBCT and ABCT reveal themselves despite the fact that the particular price featured in the two theorists is the price of output (in EBCT) and the price of credit (in ABCT).[1] Points of congruency derive from the fact, emphasized in each theory, that market participants cannot easily (or costlessly) distinguish between the real and the monetary component of the change.

The appropriateness of the response to the price change clearly depends upon the origin, or cause, of the change. An alteration in the underlying economic realities requires accommodation in real terms; monetary manipulation does not. Until the true nature of the price change is known, market participants will respond, at least in part, as if its causes were

real. If the price change is, in fact, purely of monetary origins, then market participants will eventually readjust their activities in recognition of the actual, and pre-existing, economic realities. Thus, both EBCT and ABCT allow for a certain non-trivial and systematic non-neutrality of money during the period the economy is adjusting to an increased money supply.[2]

If EBC models could be taken at face value, the substantive differences between these models and Austrian theory would be easy to identify. In their most basic formulations (e.g., Barro 1981, pp. 80–83; and Hayek 1967, pp. 69–100), the initial response by market participants takes the form of an increase in labor services in response to high nominal output prices (in the EBC model); of an inherently unsustainable capital restructuring in response to an artificially low interest rate (in ABC theory). The subsequent response takes the form of a reversion to the initial level of labor services (in the EBC model), of a time-consuming liquidation of malinvested capital (in ABC theory). If these differences were the essential ones separating EBCT and ABCT, then the two theories could rightly be viewed as variations on a theme. And there is even some overlap in the variations as evidenced by discussions in the Austrian literature (e.g., Hayek 1967 and 1975) of the misdirection of labor and by developments within New Classicism which incorporate a capital stock variable (e.g., Lucas 1981, p. 179ff) and even "time-to-build" considerations (Kydland and Prescott [1982], as discussed by Lucas [1987]). Seemingly, EBCT and ABCT have much common ground.

But EBC models are not to be taken at face value. An EBC model is not offered as a theoretical account of some actual or possible historical episode. Rather, EBCT is only a modeling technique designed to demonstrate that a model economy can exhibit cyclical patterns in macroeconomic variables without violating the constraints imposed by general equilibrium theory. Equilibrium conditions hold for the model economy throughout the course of the cycle. In the New Classical view, the constraint imposed by the logic of general equilibrium confers theoretical respectability on the model; econometric testing as suggested by exercising the model economy and performed on extended time-series data descriptive of the real-world economy establish the model's empirical relevance.

This New Classical technique is foreign to ABCT, which treats the business cycle as an instance of systematic intertemporal *dis*equilibrium. In the Austrian formulation, the

very language used to describe the course of the cycle is the language of disequilibrium: credit expansion suppresses the rate of interest below its natural level; the artificially low interest rate results in forced saving, which unduly restricts consumption; capital is malinvested; the boom is unsustainable; entrepreneurial errors are revealed in the inevitable bust. These notions cannot be described in the language of equilibrium without doing violence to their meaning.

Old and New Uses of Equilibrium

The Austrians, particularly Hayek, have made explicit but limited use of the concept of equilibrium in the exposition of their business-cycle theory. But, as van Zijp, Kim, and Butos have noted or implied, the limited use made does not qualify ABCT as a specific instance of EBCT. For the Austrians, the appropriate role for some suitable equilibrium construct is mandated by a self-evident methodological consideration: Any account of the origins of phenomena characteristic of business cycles, such as an uncoordinated capital structure, massive unemployment of labor, and other instances of widespread resource idleness, cannot assume those phenomena to exist at the beginning of the account. Theory, in short, is logically incapable of explaining what it assumes. Hayek (1948, p. 34) undoubtedly had Keynes in mind when he insisted that before we can even ask how things can go wrong, we need to understand how things could ever go right.

The very meaning of disequilibrium in the context of business-cycle theory derives from its being compared to some relevant equilibrium. That is, adopting a suitable equilibrium concept establishes the initial conditions and facilitates the analysis of an ensuing disequilibrium caused, say, by the central bank's cheap-credit policy. It allows our understanding of the particular kind of disequilibrium associated with the business cycle to be dovetailed with our understanding of the equilibrium that would have prevailed in the absence of the monetary disturbance.

This essential but limited role for an equilibrium concept is not at all what the New Classical economists have in mind. For them (e.g., Lucas 1981, pp. 287 and *passim*), the concept of disequilibrium is of no use in understanding business cycles. The phrase "equilibrium theory" is pleonastic and means, simply, "theory"; "disequilibrium theory" is self-contradictory and can

only mean "non-theory." The methodological precept that underlies EBCT is that each phase of the business cycle can be understood as an equilibrium set of prices and quantities, or it cannot be understood at all.

The all-inclusiveness of the equilibrium concept in New Classicism warns against comparisons of EBCT and ABCT that ignore the radically different methodological contexts. For instance, the inevitable bust that figures importantly in ABCT cannot easily be translated into the language of EBCT. For the Austrians, "equilibrium bust" is a term at war with itself; for the New Classicists, "disequilibrium bust" can only mean an unexplainable downturn (cf. Lucas 1981, pp. 225 and 231).

The Evenly Rotating Economy and the Fully Articulated Artificial Economy

Criticism of even the limited use of equilibrium made by the Austrian theorists can help to assess the fruitfulness of "equilibrium theorizing" in each context. Cowen and Fink (1985) find a contradiction between ABCT and the assumed initial conditions that link business-cycle theory with established price theory. They base their case on the most thorough-going concept of equilibrium in the Austrian literature, the Evenly Rotating Economy (ERE) so designated by Mises (1966, pp. 244–50). The complete coordination of all economic activities, which defines the ERE, precludes disequilibrium of any sort. The ERE allows for no uncertainty and hence has no role for the real-world institutions that help market participants deal with uncertainty. Monetary institutions and even money itself are no part of the ERE—hence the contradiction between a theory of money-induced disequilibrium grafted onto a concept of moneyless general equilibrium.

All Cowen and Fink have shown, however, is that Mises's ERE is not the appropriate equilibrium concept to serve as the initial conditions for ABCT. It is not necessary for the initial conditions to preclude *all* kinds of disequilibria but only to preclude systematic intertemporal disequilibrium—the kind of disequilibrium for which the theory itself accounts. This limited equilibrium construct complies fully with both the logic and the spirit of ABCT.

In view of the differing uses of equilibrium constructs in EBCT and in ABCT, contradictions of the sort identified by Cowen and Fink are much more telling against EBCT. The

equilibrium construct that underlies both the initial conditions and all subsequent phases of the business cycle is a clear rival for the ERE in terms of its severity and other-worldliness. The cyclical variations that mimic the ups and downs in a real-world economy play themselves out in the context of a "Fully Articulated Artificial Economy" (FAAE), in which all markets continuously clear (as in Lucas 1981, pp. 271 and *passim*; and in Barro 1981, p. 81–83).

In order that full articulation be possible, the FAAE must assume away virtually all the features that give economics its subject matter. The FAAE disallows diversity among market participants in terms of knowledge and entrepreneurial ability. Output typically takes the form of a single service indistinguishable from the labor that renders it. The price system is non-existent except in the trivial sense of the ratio of output to leisure. And except in some similarly trivial sense, there is no role in the FAAE for a monetary institution or even for money itself. Yet, a monetary impulse is what triggers the cyclical variation of output and prices. Money is injected into an artificial economy that has no non-trivial use for money.[3]

Any attempt to articulate the process through which a hypothetical monetary injection affects output and prices in the artificial economy inevitably draws on our understanding of how actual monetary injections affect the real-world economy. The characteristic effects of an actual monetary injection derive largely from the nature and limitations of the price system. Broadly conceived, the price system serves as a communications network, but any individual price signal, by itself, may be ambiguous. This limitation in the ability of the price system to communicate real changes in economic conditions underlies monetary theory from Richard Cantillon to David Hume to Friedrich Hayek. Hayek's "The Use of Knowledge in Society," (in Hayek 1948) virtually redefines the economic problem as a communications problem inherent in a society in which knowledge is widely dispersed among market participants.

Specifically underlying EBCT is the fact that market participants have no timely and failsafe method of distinguishing between real and monetary components of a price change. But a FAAE in which there is no dispersion of knowledge and only one output has little need for communications and even less scope for ambiguity. The communications network exists, if at all, in its most degenerate form.

Scope for ambiguity of a price change is incorporated into

EBC models by a technique originated by Edmund Phelps (1970, pp. 6–7). A global economy consists of numerous local, or island, economies, such that inter-island communication lags intra-island communication. Such models allow economic agents to observe price changes on their own island instantly and price changes on other islands belatedly. Ambiguity about the true meaning of price changes characterizes the period marked by the instantly perceived and the belatedly received price information.

Economic agents would react one way if a particular price change is attributable to monetary expansion, which is presumed to affect all islands equally, and another way if the change is attributable to underlying economic conditions, which is presumed to affect only the one island. But during the wait for the inter-island information, which will clarify the meaning of the local price change, economic agents must react in *some* way. Possible reactions during the period of partial information is constrained by the assumptions of optimizing behavior and continuous market clearing. The supposed behavior of the model's agents, however, depends upon whether the implicit reasoning has a supply or a demand orientation (Friedman 1978, p. 76). That is, a supply-side adjustment plus assumed market clearing and a demand-side adjustment plus assumed market clearing imply different behavior and different outcomes. While the virtue of the FAAE is believed to lie in its being fully articulated, the behavior of its inhabitants varies substantially from one model to another and invariably leaves much to the imagination.

Difficulties in understanding why agents in the FAAE would use money at all are transformed into difficulties in understanding how (or why) these agents would react to monetary expansion. Accounts of their supposed behavior derive their plausibility from—rather than confer their plausibility upon—our understanding of the effects of monetary expansion in real-world economies. The FAAE, then, which contains just the sort of contradiction identified by Cowen and Fink, cannot help us understand the real world. Rather, it is the implicit and intuitive understanding of the effects of actual monetary expansions that has concealed the contradictory construction of the EBC models.

The Wicksell Connection

Except for Marxian theories, nearly all modern theories of the business cycle have essential elements that trace back to Knut

Wicksell's turn-of-the-century writings on interest and prices. Austrians, New Classicists, Monetarists, and even Keynesians can legitimately claim a kinship on this basis. Accordingly, the recognition that both the Austrians and the New Classicists have a Swedish ancestry does not translate into a meaningful claim that the two schools are essentially similar. To the contrary, identifying their particular relationships to Wicksellian ideas, like comparing the two formally similar business-cycle theories themselves, reveals more differences than similarities.

Central to Wicksell's treatment of the relationship between prices and interest was the distinction between the natural rate of interest and bank rate of interest and the recognition that the bank rate can diverge from the natural rate. These are the ideas that directly influenced Mises and subsequent Austrian theorists. The institutional setting in which the interest rate reflects both the intertemporal preferences of market participants and the actions of policy makers, then, figures importantly in the Austrian account of the artificial boom and inevitable bust. Fritz Machlup (1976, p. 23) accurately summarized the Austrian view with the statement that "*monetary* factors *cause* the cycle but *real* phenomena *constitute* it." But to establish the essential difference between the Austrians and the New Classicists, it needs to be added that the focus of the Austrian theory is on the actual market process that translates the monetary cause into the real phenomena and hence on the institutional setting in which this process plays itself out.

The New Classicists deliberately abstract from institutional considerations and specifically deny, on the basis of empirical evidence, that the interest rate plays a significant role in cyclical fluctuations (Lucas 1981, p. 237 15n). Thus, Wicksell's *Interest and Prices* is at best only half relevant to EBCT. More relevant, in establishing the Wicksell connection, is Ragnar Frisch's (1933) work on "impulse and propagation." This separation of issues in Frisch's writing formally parallels Machlup's characterization of the Austrian view, but the difference in the extent of the separation translates into a fundamental difference between EBCT and ABCT.

Frisch (1933, p. 198), took as his inspiration a metaphor that he attributed to Wicksell. Cyclical fluctuations in economic activity is mimicked by the motion of a child's rocking horse. The metaphor is intended to suggest that understanding the horse's rocking, or even its propensity to rock, requires an analysis of its structure. Further, the questions "What sets the

horse to rocking?" and "What are the structural parameters that underlie its rocking motion?" are completely separate. The impulse that causes the motion need not have any particular relationship to the activated propagation mechanism that constitutes the motion. Taking the Wicksellian metaphor as their cue, the New Classicists are led away from the pre-eminent Austrian concern about the actual market process that transforms cause into effect and towards the belief that a full specification of the economy's structure, which is possible only in the context of an artificial economy, can shed light on an effect whose nature is fundamentally independent of the cause.[4]

Dichotomizing the analysis as it relates either to questions about the impulse that initiates cyclical movements or to questions about the economic structure in which cyclical movements can occur has allowed for developments within New Classicism that transcend the traditional categories of business cycle theories. Theories traditionally categorized as "monetary" and "non-monetary" can now belong to the same category. Within the context of New Classicism, Real Business-Cycle Theory (RBCT) is distinguished mainly in terms of the nature of the impulse that is thought to set the economic structure into its cyclical motion. In RBCT, business cycles are initiated by real supply shocks rather than by monetary shocks. And while the hard-drawn version of RBCT's propagation mechanism (Long and Plosser 1983), assigns no role at all to money, more accommodating accounts (King and Plosser 1984) allow for money and credit to become involved through "reverse causation."

Dispute or agnosticism about the true nature of the impulse has only a minimal effect on the empirical research inspired by the monetary EBCT or the non-monetary RBCT. Lucas (1987, p. 70–71), for instance, favors the former over the latter on the basis of the comparison of the amplitude of cyclical fluctuations with the magnitude of nineteenth- and twentieth-century supply shocks. The fact that monetary considerations can be ruled in or ruled out on such grounds suggests that money and monetary institutions are not nearly so central to New Classical theory as they are to Wicksellian and Old Austrian theories.

Broadly Historical or Narrowly Empirical Analysis

Fundamental differences between the process analysis of ABCT and the structural analysis of EBCT imply corresponding

differences in the respective historical, or empirical, treatments of cyclical fluctuations. The Austrian theory finds empirical expression in actual historical episodes in which a credit-driven boom is followed by an economywide bust. The policies of the Federal Reserve System during the 1920s in the light of the subsequent crash in 1929, for example, provide primary raw materials for an historical study. The theory establishes the causal connection between the boom and the bust and explains many of the features of both, such as the movements of capital-goods prices relative to consumer-goods prices during the boom, the high real interest rate immediately preceding the bust, and the disproportionately low value of long-term capital goods during the depression.

In the spirit of Mises (1969), theory and history are shown to yield complementary accounts of a particular instance of boom and bust, an instance that is understood to have occurred independent of our theoretical understanding of it. And the process analysis that provides the theoretical understanding requires, as its empirical complement, an economic history that gives full play to monetary institutions, policy goals, and beliefs held by opinion makers, public officials and key Federal Reserve operatives, as well as to the more narrowly conceived macroeconomic data.

The structural approach of EBCT leads to a fundamentally different kind of empirical research. Wicksell's rocking horse can help to explain. The motion of the rocking horse can be understood and predicted exclusively on the basis of knowledge of its structure. And in principle, as applied literally to a rocking horse, knowledge of the structure can be acquired without the horse rocking at all. Values of a few structural parameters, such as weight, center of gravity, and curvature of the runners, are enough to fully specify the parameters of the horse's motion.

Structural properties of the economy, however, cannot be measured independently of relative movements of economic variables. But the relative movements needed for the identification of the economic structure need not be movements that any contemporary historian has identified as a boom-bust cycle in the sense of ABCT. All that is required is that there be enough variation in the independent variables to allow for statistically significant estimates of the system's parametric values. In other words, the metaphorical rocking horse cannot be observed directly by econometricians. Available data consist only of the points of contact between runners and floor. Thus,

inferring the structure from the data requires that there be some movement in these points of contact.

Since the needed variation in the independent variables falls as the sample size increases, the prospects for identifying the economic structure increase with the length of the period that serves as the basis for the empirical research. The typical data base used is the time series of macroeconomic variables from the end of World War II to the latest quarter for which data are available. Parameter estimates, then, are based upon data for the entire period whether or not the constituent sub-periods were part of a noticeable or a not-so-noticeable cyclical episode. Revealingly, the most noticeable of all cyclical episodes, the Great Depression, is viewed by New Classicists as an outlier that defies explanation by existing economic analysis (Lucas 1981, p. 284).

Contrasting examples of Austrian-based historical research and New Classicist-based empirical research are easily identified. Lionel Robbins's *The Great Depression* (1934) and Murray Rothbard's *America's Great Depression* (1975) clearly exemplify the analysis of a particular historical episode as the empirical counterpart of ABCT. The econometric testing of hypotheses consistent with EBCT is exemplified by Robert Barro's "Unanticipated Money Growth and Economic Activity in the United States" (in Barro 1981) and Thomas Sargent's "A Classical Model for the United States" (1976), both of which test an extended time series for relative movements in macroeconomic variables thought to be characteristic of cyclical activity. An interesting hybrid is Charles Wainhouse's "Empirical Evidence for Hayek's Theory of Economic Fluctuations," in which a number of hypotheses derived from ABCT are tested on the basis of monthly data for the period January 1959 through June 1981. There seems to be no hybrid of the other sort, in which EBCT is shown to illuminate some historical account of a particular cyclical episode.

Concluding Remarks

EBCT in its Lucas and Barro formulations and ABCT as spelled out by Mises and Hayek have a certain formal similarity. The two theories both owe something—though something different—to Knut Wicksell. Policy implications of the two theories, not discussed in this article, are clearly similar. Yet, in terms of the well recognized methodological distinctions that separate the

Austrian school from the modern orthodoxy, EBCT and ABCT are worlds apart. Theorists who are more at home with ABCT than with EBCT will do well, though, to monitor developments of EBCT. These New Classical models continue to provide a forum for Old Austrian ideas.

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[1] The difference in terms of the particular price featured in the two theories accounts for an anonymous referee's observation that in EBCT the cycle is initiated by a rise in the interest rate [in the sense of a greater spread between input and output prices], while in ABCT the cycle is initiated by a fall in the interest rate [in the sense of cheaper credit].

[2] Extending the comparison to encompass Monetarism would involve too great a detour. In general, the qualifier "non-trivial" distinguishes this general description from the Monetarist view, which characteristically trivializes all short-run monetary non-neutralities with the label "first-round effects." Otherwise, the Friedman-Phelps treatment of short-run and long-run Phillips curves identifies a market process similar to the ones identified by EBCT and ABCT. This similarity is the focus of Bellante and Garrison (1988). But for an argument that the Friedman-Phelps dynamics is not an integral part of Monetarism, see Garrison (1991).

[3] Garrison (1989, p. 21) discusses what, in effect, is the Cowen-and-Fink contradiction in the context of Barro's back-scratching economy. Lucas (1987) attempts to "motivate the use of money" (p. 74) by introducing the concept of "cash goods," which—for reasons plausible enough to participants in the real-world economy—can be purchased only with cash.

[4] In his historical perspective Kim (1988) gives some play to Frisch and the rocking horse as a link between Wicksell and EBCT and argues that EBCT is a "child of the Cowles Commission method," which was the method pioneered by Frisch.

Marxism, Capitalism and Mercantilism

David Osterfeld

Traders Versus the State: Anthropological Approaches to Unofficial Economics, by Gracia Clark (Boulder, Colo.: Westview Press, 1988).

Traders Versus the State: Anthropological Approaches to Unofficial Economics is at once both a frustrating book to read and a fascinating book to review. One might suppose from its title that the book deals with conflict between government officials on the one hand and those engaged in trading or merchandising on the other. And one might suppose from reading the subtitle that the book focuses on the activities of those in the "black" or "informal" markets. The book, however, does not deal with trade or traders, as such, but with the activities of the small-scale street vendor. Nor is its focus solely on the "illegal" or "black market" or "informal sector" activities. Several of the articles deal specifically with the activities of "licensed street vendors." The meaning of "unofficial" is made clear in the introductory chapter by Gracia Clark.

The purpose of the book is to analyze the "petty commodity mode of production." The term "traders" is restricted to those engaged in small-scale production and commerce, in particular the street vendors; the term "unofficial" means those economic activities that pose a threat to the position of the more established, capital-intensive middle- and upper-class merchants. The activities of the "petty commodity traders" jeopardize the established positions of the "capitalists" or "bourgeoisie." Since the latter tend to control the state, they are able not only to defend their own position by using the coercive arm of the state to regulate and control the activities of the petty traders but, according to Johanna Lessinger (p. 141), they are even able to enhance their positions by using the state to "appropriate the often sizeable patches of real estate on which existing markets are located," thereby facilitating "the process of capitalist

development." Thus, she concludes, "the process of capitalist development has a very direct role in accentuating class differences," as the bourgeoisie continually solidify and improve their positions at the expense of the poor, whose position deteriorates over time. The origins and growth of "petty commerce" is traceable, according to Florence Babb (p. 30), "to the contradictory, and uneven development of capitalism. . . ." In short, the real enemies of the "traders," who are actually small scale street vendors, is not so much the state but the "bourgeoisie" who control the state and use it for their own purposes. *Traders Versus the State* would be more accurately entitled: *Street Vendors Versus the Middle Class Merchants*. A more appropriate subtitle would be: *A Marxist Viewpoint*.

The lengths to which one can go in order to blame all evils on "capitalism" is illustrated in the article on the "Informal Trade Sector in Tanzania" by Donna Kerner. Kerner notes that President Julius Nyerere committed Tanzania to a policy of "socialist development" as early as 1967, required peasants to market their food crops through "parastatal crop authorities," i.e., state-run marketing boards; introduced a policy of massive price controls; and nationalized the banks and nearly all businesses and labor unions. These policies resulted in massive shortages and extensive black market activities.

The government responded to the economic crisis by mandating that "every able-bodied citizen" be "engaged in productive labor," and defining "labor" so as to exclude traders or "intermediaries." It then began a massive campaign of arresting "jobless loiterers" and sending them to work on government-owned plantations. Within three months well over 15,000 "random arrests" had been made. This only aggravated the shortages, making the economic crisis more severe.

The government responded to the extensive black-market activities by introducing a program known as "The War Against Economic Sabotage." The program mobilized the police and military to arrest nearly everyone engaged in trade as an "enemy of socialism." Eventually, with economic output below 50%, many essential items completely disappearing, and the country on the brink of massive starvation, Tanzania, under pressure from the World Bank and the IMF, abandoned many of its interventionist policies. The result, according to Kerner, is that "recent reports indicate that imported and local goods now flood the government stores." Yet, astonishingly, the Tanzanian tragedy is blamed not on Nyerere's commitment to socialism; nor

is it blamed on the interventionist measures designed to eliminate private trading. It is blamed on *capitalism*! Tanzania exists on "the periphery of international capitalism," she says, and what took place in that country represents "a distorted form of capitalism."

The Marxist jargon that permeates most of the articles in *Traders Versus the State* is irritating, as is the Leninist penchant for referring to any multinational corporation such as Purina or Nestle as a "monopoly." (Although the two notable exceptions are the superb articles on the economics and strategies of street hawking in Hong Kong by Josephine and Alan Smart. The articles deal with such things as the use of roof-top spotters, armed with walkie-talkies, to provide hawkers with a sort of early-warning system when the police are approaching. The articles, it should be noted, are devoid of ideological terminology.) But in order to understand the book's significance it is first necessary to clarify two distinct approaches or "paradigms" to political economy: the Marxist and the classical liberal.

Marxism, Liberalism and Power

Nearly all the articles in *Traders Versus the State* are based on the Marxist paradigm. There are numerous references to class conflict and the contradictions of capitalism. Economics is viewed as a system of power relations, or as a zero-sum game, in which one person's gain is offset by another's loss. Since both the market and the state are tools which are used by the wealthy elite to protect and enhance their own privileged positions by oppressing and exploiting the poorer, working class, there is no need to distinguish between them. The market no less than the state is an institution infused with power relationships.

This, of course, is in direct contrast to the liberal paradigm in which power relations simply do not exist on the market. The market is nothing more than the nexus of voluntary exchange. And precisely because it is voluntary, any exchange must therefore be to the mutual benefit of all parties concerned; if this were not the case, then the exchange would not be consummated. Thus, for the liberal, exchange is a positive-sum process.

Capitalism and Mercantilism

But these two outlooks are not as incompatible as they may appear at first. For the liberal free trade is positive-sum, but coerced trade is not. While the market is a purely voluntary institution, it is in the state—the apparatus of compulsion and control—that power is concentrated. This means that the distinction between the market and the state, far from being meaningless as it is for the Marxist, is, for the liberal, fundamental. Since the Marxist views both the market and the state as nothing more than alternative methods by which the ruling class is able to dominate and exploit the rest of society, he is unable to distinguish between the market process itself, and the effect of government restrictions on the market. And this, in turn, means that the Marxist cannot distinguish between what is commonly referred to as capitalism, or a system of free trade, and mercantilism, or a system in which the operation of the market is impeded by extensive government restrictions for the benefit of the ruling group. It is important to realize that it is not simply that the Marxist does not distinguish between capitalism and mercantilism. It is that the Marxist paradigm quite literally renders him *incapable* of making such a distinction. As Robert Schenk (1986, p. 676) has put it:

> At the center of neoclassical analysis is mutually advantageous exchange. At the center of radical [Marxist] analysis are power relationships in the form of class conflicts. Any framework or paradigm focuses attention on certain features of the subject under investigation. Imperialism, exploitation and alienation flow readily from a framework emphasizing power. . . . To extend the framework of power relationships into socialism would deny the essence of what radicals want to achieve with socialism—a society without power relationships. . . . [But] if a theory of socialism is based on a framework other than power relations, another problem will arise. Trying to integrate such a theory with the core of radical analysis could force changes in the original paradigm. For example, the radical literature has rejected theories of market socialism because they need the concept of voluntary exchange, and voluntary exchange does not fit well with radical analysis.

In contrast, the strength of the liberal paradigm lies in

precisely its ability to provide an analytical distinction between voluntarism and power, market, and government. This distinction has been at the center of liberal thought from its very inception. Adam Smith, for example, wrote his massive *Wealth of Nations* specifically to refute the doctrine of mercantilism. Smith argues that under mercantilism monopolistic privileges were granted to a few favored firms, permitting them to sell at exorbitant prices, while tariffs were enacted to keep out foreign competitors. But if a nation were to eliminate imports it would need to have its own exclusive colonies in order to obtain raw materials. The power of the state, of course, was ideally suited to carve out and police the resulting colonial system. Smith charged that the mercantilist system not only hurt those in the colonies but the workers in the mother country as well. Its only beneficiaries, he says, were "the rich and powerful." Permitting the colonists to buy only from merchants in the mother country enabled those merchants to sell at monopoly prices in the colonies. The colonists, therefore, were unable to pay for the administration of colonial government as well, so the workers in the home-country were heavily taxed to defray this cost, thereby perpetuating the profits of the state-favored merchants. The effect of mercantilism, said Smith, was that "the interest of one little order of men in one country" was promoted at the expense of "the interests of all other orders of men in that country and of all other orders of men in all other countries" (Smith 1776, p. 578). What Smith urged was the replacement of mercantilism by free trade. This, of course, would logically entail the abandonment of the entire colonial empire and Smith did not shrink from drawing that conclusion.

One finds similar statements in the writings of other early liberal thinkers including J. B. Say, Charles Comte, and Charles Donoyer in France (Weinberg 1978; Liggio 1977), John Trenchard and Thomas Gordon (1965; this is the first reprinting of the *Cato Papers* since 1755), and Richard Cobden and John Bright (Read 1968) in England, and William Leggett and the Locofocos (Leggett 1984; Dorfman 1946, pp. 652–61; Hofstadter 1948, pp. 45–62) as well as the quasi-liberal, John C. Calhoun (1953; see also Hofstadter 1948, pp. 68–92) in America, to name but a few. Moreover, the distinction between market and government, between voluntarism and power, has remained at the core of liberal thought down to the present. For example, Ludwig von Mises has written (1978, pp. 3–4) that:

> Our age is full of serious conflicts of economic interests. But these conflicts are not inherent in the operation of the unhampered capitalist economy. They are the necessary outcome of government policies interfering with the operation of the market . . . They are brought about by the fact that mankind has gone back to group privileges and thereby to a new caste system.

While Mises sees peace as the necessary precondition for free trade, mercantilism, he says tersely, is "the philosophy of war." Similarly, Murray Rothbard (1970, pp. 194–96) draws a sharp contrast between the market principle, personified by individual freedom, mutual harmony and peace, and the state, or "the hegemonic principle," characterized by "coercion," the "benefit of one group at the expense of another," "caste conflict," and "war." Similarly, Milton Friedman is fond of drawing attention to the fact that while such policies as tariffs are "pro-business," they are "anti-free trade."

The inability of the Marxist paradigm to distinguish between capitalism and mercantilism has resulted in an unfortunate terminological confusion which has meant that classical liberals and Marxists have often talked past one another when they were, in fact, in substantial agreement, at least on certain key issues regarding the state, such as its role in generating class conflict and turning trade into a situation in which one group benefits at the expense of another. This is precisely the case with *Traders Versus the State*. What the authors of *Traders Versus the State* condemn as "capitalism" is nearly identical to what liberals criticize as "mercantilism."

Interventionism and Social Conflict

The problem, so graphically underscored in *Traders Versus the State*, is that in today's world, trade, especially in the Third World, is seldom free. The significance of *Traders Versus the State* is to show that in those societies in which the economy is highly politicized, where what one gets is determined largely if not solely by the state, one cannot say that "I am going to live my life in this way and allow others to live their lives in their own way." Rather, one must say that "In order to live my life in this way I must first get control of the state and impose my lifestyle on everyone else." As a result, control of the state becomes a

prerequisite for obtaining any of one's goals. The result is that what would otherwise be handled by peaceful cooperation between individuals is transformed into bitter conflict between groups for control of the state. What would otherwise be handled through the mechanism of voluntary exchange for mutual benefit is turned into coerced exchange in which one individual or group benefits itself at the expense of everyone else.

A vital question is who is likely to get control of the state? As the articles by Florence Babb on Peru and Barbara Lessinger on India make clear, it is the wealthy merchants, or "capitalists," who are often in a position to use their wealth to gain control of the state. But it is here that the distinction between capitalism as an economic system and the actions of the so-called "capitalists" is fundamental. The "capitalists" have little interest in free trade, as such; their goal is to make money. In fact, it is because the never-ending threat of competition on the free market renders their position perpetually insecure that the "capitalists" strive to control the state. Put differently, far from the market being an institution of power on a par with the state, as the Marxists believe, the only reason the "capitalists" seek to control the state is precisely because the vaunted notion of "market power" or "economic domination" simply does not exist on the unhampered market. Thus, it is only through control of the state that the "capitalists" are able to control access to the market, thereby institutionalizing their economic positions.

But, perhaps ironically, *Traders Versus the State* also shows that the state may, and has, been dominated by a very different group. This group despises trading not for pragmatic but for ideological reasons, viz., because of its commitment to socialism or communism. Traders are seen as useless intermediaries and trade as exploitation which must be stamped out. The extent to which the war against trading will be taken by its ideological enemies—including the demolition of markets and the beating and even killing of the traders—is graphically documented in the articles by Donna Kerner on Tanzania and Gracia Clark on Ghana.

Conclusion

Two things come through crystal clear in *Traders Versus the State*. The first is that regardless of whether the state is controlled by the wealthy capitalists or the ideological socialists, the result of government economic intervention is the same: massive

shortages, extensive black-market activities and social conflict. As Clark says of the situation in Ghana, "price controls brought chaos" (p. 63). The second is that when the controls are lifted all three of the problems are reduced in intensity or even relieved altogether. As Babb has observed, with "the elimination of many price controls" in Tanzania, "goods now flood the government shops" (p. 51). These are certainly astonishing conclusions for a book written largely from a Marxist perspective.

In the final analysis, the authors' candid acknowledgement of the indispensable role of the free market says far more about the intellectual bankruptcy of Marxian economics than a dozen books on that topic.

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Discovery, Capitalism, and Distributive Justice. By Israel M. Kirzner. New York: Basil Blackwell, 1989.

Israel Kirzner is a name familiar to all readers of the *Review of Austrian Economics*. Kirzner's association with Austrian economics began with the inception of his long and distinguished career. He attended Ludwig von Mises's seminar at New York University for many years and received his doctorate under the aegis of the great Austrian. His thesis concerns the history of doctrine, and another of his works is a textbook on price theory. But the bulk of Kirzner's career has centered around entrepreneurship. His books and articles on the entrepreneur have secured his standing as the leading Austrian authority in this area.

A dominant theme runs through Kirzner's many contributions on his chosen topic. The entrepreneur, as Kirzner sees matters, is engaged in a process of discovery. He does not combine resources that already exist to produce goods whose patterns everyone knows. If he did, the existence of profit would be mysterious. Instead, he brings new resources into existence. Further, the class of entrepreneurs must not be confined to a relatively narrow group of businessmen. Kirzner regards the need for entrepreneurship as universal. Everyone must constantly adjust to unpredictable circumstances in an ever-changing world.

With the details of Kirzner's view of the entrepreneur, and his account of the market as a selective agent, we are not primarily concerned here. Though much of *Discovery, Capitalism, and Distributive Justice* is devoted to an account of precisely the topics just mentioned, the book's key theme (discovery?) lies elsewhere. Kirzner believes that his approach to entrepreneurship can be used to help resolve the much-debated issue of distributive justice.

Kirzner advocates what he terms the "finders-keepers" principle. If someone picks up an unowned sea shell at the beach, does he not become its owner (p. 69)? After all, he found it: even if other people admire the shell and wish it were theirs, the discoverer has been first in the field.

One might initially object to Kirzner that "finders-keepers" covers only the exceptional case—does it apply to anything besides small objects that stand ripe for the picking? Kirzner emphatically disagrees, and it is here that his view of the entrepreneur enters the scene. Someone who devises a new use

for a good or service has in effect brought that good into existence. Kirzner of course does not ascribe to human beings the divine prerogative of creating matter out of nothing. Rather, he holds that someone who discovers a new use for a resource has brought the resource (not the matter of which it is composed) into being. Until someone realized that oil can be used as fuel, it had not begun to exist. The fact that it lay in the ground for untold thousands of years before its economic "creation" counts for nothing.

Kirzner uses this view of economic creation to extend the finders-keepers rule. Far from applying only to the odd object that someone picks up, the principle has near universal application. Whenever someone thinks of a new use for something, he has created an economic good. Finders-keepers applies and he owns what he has made.

Kirzner does not claim that his extension of finders-keepers suffices for a complete account of property rights. Quite the contrary, he thinks of it as a supplement to property rights accounts based on self-ownership, such as the theories of Murray Rothbard and Robert Nozick. It is, however, a supplement that threatens to devour the views it has been devised to aid.

Before turning to Kirzner's application of finders-keepers to natural rights, a preliminary task of analysis confronts us. How strong is the case for Kirzner's principle? To begin with the ordinary version of finders-keepers, before Kirzner extends it through his doctrine of resource creation, a crucial ambiguity lies at hand.

Someone who first picks up a stray object usually is recognized as its owner: so far, so good. But is this just a rule-of-thumb that applies only within a theory of property which has been constructed on other grounds, or does it apply whenever an unowned object is discovered? On the first alternative, finders-keepers is simply a summary of certain rules within a legal code. A rule might, for example, provide that if one discovers a wallet whose owner cannot be identified, one must first report the incident to the police. If no one claims it within a month's time, the finder owns it. This procedure is simply an artifact of a particular legal system. Other legal codes might well handle the situation in a different way, e.g., by using lost property to reduce the tax burden.

On the second alternative, which Kirzner clearly favors, matters look different. Here, any object that someone first acquires becomes his. Finders-keepers is here not a mere

addendum to a legal system but the sum and substance of the law code. If this is what Kirzner has in mind, in what sense has he arrived at an alternative to the standard Lockean account? As contemporary Lockean theories conceive of things, land and natural resources start unowned: the first person to meet the requirement of the principle of initial acquisition becomes the owner of what he has taken. Kirzner's finders-keepers doctrine, taken this way, just is a version of Lockean property rights.

I do not regard this as an objection to Kirzner, since the Lockean account seems to me correct. But Kirzner presents finders-keepers as an important supplement to the Lockean account, not a restatement of it. Although himself attracted to the Lockean view, he thinks that many people have moral intuitions that prevent them from fully accepting this doctrine. He notes, for example, that some people will refuse to accept exchanges based on wrong information as fully voluntary. People who take this position will reject the moral Nozick draws from his Wilt Chamberlain example. They will not agree that all bargains that begin from a just starting point preserve justice. They will instead wish to impose much more rigid requirements for voluntary exchange than libertarians have in mind.

Kirzner believes that finders-keepers enables advocates of a libertarian system to avoid a direct confrontation with these non-libertarian intuitions. Since nearly everyone accepts the finders-keepers rule, no direct challenge to moral intuitions need take place.

But this requires that finders-keepers be a different principle from a Lockean rule of acquisition. Otherwise, he would have no other reply than garden-variety Lockeans do to the moral intuitions he wishes to circumvent. What then is the difference between finders-keepers and other Lockean accounts? If finders-keepers is taken in a way sufficiently broad to have critical bite, I cannot see that it counts as anything but a variant of Lockean property-rights theory. Kirzner's obvious reply is to move between the horns of my dilemma. He might claim that finders-keepers has moral force independent of particular legal systems. At the same time, the principle is not a full-fledged theory of justice. I shall address this reply at a later point.

Kirzner might also reply that this objection misses the crucial point. On his view, the creator of a new use for a resource brings the good into existence. This position does not feature in the standard Lockean presentations. Here lies the key to the mystery: once the creativity of the entrepreneurial discover is

taken to heart, the true power of finders-keepers stands apparent. The structure of Kirzner's argument can be set out like this: (1) practically everyone acknowledges the finders-keepers rule; (2) the scope of the rule is far-reaching, because the discoverer of a new use for a resource creates the resource; (3) the finders-keepers rule resolves issues of distributive justice in a way Lockeans will favor, but without relying on controversial moral assumptions. The sketch of the argument I have just presented does not purport to be a rigorous deduction. I have devised numbered premises simply for convenience.

This argument is less than fully convincing, although its force cannot be dismissed. If people come to realize that finders-keepers has much greater scope than they at first imagined, it does not follow that they will accept the new, extended finders-keepers rule. They may instead think that the principle calls for a more precise and limited statement than they had initially thought necessary. Kirzner appears to think that someone who has non-libertarian intuitions will reason in this way: "Market exchanges are often not fully voluntary. How can Nozick and his friends fail to see so obvious a point? But what's this? There are Kirznerian entrepreneurs present in every exchange. Finders-keepers! Now my non-libertarian intuitions have been shown up as the illusions they are."

Perhaps some people will reason in this way; but it is not apparent why they must. If some people's non-libertarian views about voluntary exchange override the strength of ordinary Lockean property rights, why will bringing in finders-keepers change matters? These people may still hold to their original opposition to the free market.

Kirzner's argument is however not without merit. Non-libertarians who feel the force of his finders-keepers rule will face a challenge to their views. It is because Kirzner believes that his principle has overwhelming intuitive plausibility that he believes that its acknowledgement will overcome anticapitalist qualms. The crucial question then becomes: exactly how plausible is Kirzner's principle?

As I have already suggested, analysis of finders-keepers should follow a twofold path. First, the ordinary-language sense of finders-keepers is just a rule-of-thumb about how to handle lost objects. Though here I have little to oppose to Kirzner's intuitions than my own contrary ones, finders-keepers as usually taken seems no great shakes. If a dime drops out of someone's pocket without his noticing it, perhaps the person who finds it

becomes its new owner (p. 151). But suppose a wallet containing $10,000 and a number of credit cards falls from the same pocket. Will most people say that anyone who finds it becomes its new owner? I hardly think so. And in cases where people do accept finders-keepers, how do we know that it has moral force independent of particular legal systems? If a legal system used other rules for dealing with lost objects, is it obvious that we would think these morally wrong?

But once more I may be accused of failing to grasp the essence of Kirzner's case. It is not just ordinary-language finders-keepers that he favors, but finders-keepers combined with his view of the discoverer as creator. Exactly at this point, I fear, lies one of my two most radical dissents from Kirzner's provocative analysis. It is not at all evident to me that someone who thinks of a new use for a resource does in fact own it. (I am at this point not challenging Kirzner's position that the entrepreneur creates new resources: I am instead questioning the implications about ownership which he draws from his view.) Does the first person who thought of commercial television own all subsequent television sets? How much money is the fortunate heir of the inventor of the wheel entitled to receive? If Kirzner protests that he wishes his principle of creativity to be more directly tied to physical production than my examples presuppose, what in his finders-keepers principle justifies this restriction?

Suppose however that we place to one side any unusual examples. Let us assume that Kirzner's theory resembles other libertarian accounts of the items it picks out as subject to ownership. Kirzner states: "I do not really wish to say that the first discoverer of a resource should be declared its just owner even if he did not raise a finger to take possession of what he has found or discovered" (p. 172). Regardless, then, of whether Kirzner's discovery principle justifies this restriction, no further cases will be presented that ignore it.

We are at last in a position to treat the decisive point. Is it in fact obvious that creators ought to own what they have made? In Kirzner's doctrine, an inventor seems, if anyone is, to be entitled to own what his ingenuity has devised (see pp. 158–59). But do people regard it as morally outrageous that inventors receive only limited patents? In point of fact, this issue of inventors' rights is a much-disputed one. Though I find plausible Rothbard's opposition to patents, the point here is not whether Rothbard, Kirzner, or some other scholar holds the correct view of the issue. Rather, the existence of moral dispute is what to my mind

Kirzner has neglected. He thinks that once people realize the creativity of the entrepreneur, they will accept his finders-keepers principle. They will do so even if they have certain moral intuitions of an anti-libertarian sort. But it is just false that everyone recognizes the intuitive force of Kirzner's principle. Even if he is right, he is not obviously right.

There is a connected issue where I find myself at odds with Kirzner. He seems entirely right to emphasize that without creative persons, little or no production can occur. How does it follow from this, though, that the entrepreneur brings into existence the use of a resource? Kirzner's argument confuses a necessary with a sufficient condition. Until someone had the idea of using oil for fuel, oil did not exist as fuel: equally, however, the idea without its physical embodiment does not suffice. Both are necessary. Kirzner's fallacy is analogous to the Marxist claim that labor is the source of value, since labor is almost always needed to create an economic good.

If this point is correct, then the extension Kirzner wishes to make from ordinary-language finders-keepers to his own comprehensive version lacks a basis. Even if Kirzner is right that first finders of objects acquire them, finders-keepers will not directly apply to those who devise new uses for things. These people have not brought anything besides their own ideas into existence: they cannot then claim to own physical assets on the ground that they have created them.

The objections raised above do not, if successful, throw finders-keepers entirely out of court. To the extent one finds the principle intuitively plausible, it can provide a useful supplement to Lockean theories of property. Kirzner has in my view radically overestimated the scope and power of finders-keepers; but his insightful and provocative analysis is an important contribution to the theory of distributive justice.

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More Heat Than Light: Economics as Social Physics, Physics as Nature's Economics. By Philip Mirowski. Cambridge: Cambridge University Press, 1989.

Few books on the history of economics begin with a discussion of physics, but Mirowski's brilliant work is no ordinary book. He contends that economics, culminating in the currently dominant neoclassical school, has throughout its history been controlled by a metaphor. Most economists regard their discipline as a science; since, in the common understanding, physics is the best developed of the sciences, economics ought to be modeled on physics. Mirowski's radical thesis is that the model of physics has determined in detail the sum and substance of economic theory from the Physiocrats down to the present.

Mirowski has an even more ambitious goal than the presentation of his revolutionary view of economics. He writes not as a detached observer but as a vigorous partisan. He strongly opposes the control of economics by physics. Economists, in pursuit of their futile ideal of rigor, have misunderstood physics and generated "science, falsely so-called." Mirowski himself has enlisted in the institutionalist camp, but his own views of correct theory do not receive much discussion in *More Heat Than Light*.[1] He comes not to praise neoclassicism, but to bury it.

Mirowski contends that conservation principles are the *leitmotif* in the growth of modern physics. Very roughly, a conservation principle requires that some quantity, e.g., mass or energy, be kept constant in a given system. To take a case often used by nineteenth-century physicists, a perpetual motion machine disobeys the law of energy conservation since it requires new energy to be generated out of nothing.

Mirowski once more writes not as a mere observer of the scene. He thinks that physics has placed undue reliance on conservation laws. They cannot be exactly stated; and the proofs of the laws, e.g., the impossibility of perpetual motion, rest more on assertion than argument. Even more importantly, a look at the history of physics shows that conservation principles have died "the death of a thousand qualifications."[2]

The sad tale begins with Descartes, who according to Mirowski made the conservation of mass basic to his program of reducing the physical world to matter in motion. I am inclined to

think that Mirowski overemphasizes Descartes' philosophical adherence to conservation of mass. He did not believe that minds were physical. One of the minds, namely God, creates the physical world and constantly upholds it. Further, even within physics itself, Descartes's "extension" bears closer resemblance than Mirowski allows to the field concept that in his view emerged only in the nineteenth century.[3]

Oddly, Newton plays no role in our author's version of the story of physics, on the ground that he did not explicitly use conservation principles (p. 404). But readers inclined to complain that physics without Newton is like *Hamlet* without the Danish prince, will be surprised at the coherence and complexity of Mirowski's account. The importance of conservation laws lies principally in the fact that they allow the use of certain mathematical techniques, such as variational principles.

The fly-in-the-ointment is that the conservation laws had to be constantly modified and restricted, since otherwise they fail to work. Instead of operating with physical substance, physics in the nineteenth century turned to the impalpable notion of the field. The use of the field concept made possible the employment of powerful mathematical tools, such as Hamiltonians and Lagrange equations, at the cost of considerable difficulty in the statement of exactly what was supposed to be conserved.

Other developments, such as the rise of entropy, required further restrictions on conservation. Physicists at the beginning of the twentieth century could no longer readily console themselves over the surrender of conservation with their ever-refined formalism. Henri Poincarè showed that only under certain very limited conditions can the mathematical methods cited above be used. As the reader will by now expect, the rise of special and general relativity and quantum mechanics in the present century has further complicated the story and altered the meaning of conservation laws. Mirowski goes so far as to suggest that physicists have really abandoned conservation but cling to an outworn metaphor.

All very interesting, no doubt; but what has this to do with economics? Mirowski's answer is practically everything. Economists have directly translated the models of physics in use in their time into economic categories. (Incidentally, this does not exclude the influence of economic concepts in physics.) Why, e.g., did Adam Smith define wealth as stock (p. 166)? Not because this definition was dictated to him by his observation of the economy. Quite the contrary, he was influenced by Cartesian

physics, and stock, in Smith's view the substance of value, corresponds to the mass that is conserved in Cartesian physics.

Is Mirowski correct? I find it hard to decide. Smith does not say that he was transferring a physical concept to economic theory; and, even if he did, it does not follow that Smith's description of the economy is inaccurate. Mirowski emphatically dissents; in his view, the actual economical world plays only a limited role in economic theorizing. On Mirowski's behalf, however much one may think him mistaken about a particular economist, his piling up of case after case of parallelism between physics and economics will impress even the most skeptical reader.

Smith, as briefly suggested, believed that economic value was a substance. This notion dominated classical economics. Although Mirowski thinks extremely highly of Marx, calling him "an epoch-making economist" (p. 179), he shows very effectively that resort to value as substance proved Marx's undoing.

Once more the question arises: did Marx use this notion of value because he was consciously seeking a model of the economy based on the physical sciences? The case seems to me suggestive but unproven. Mirowski stands on much firmer ground, however, in his treatment of the neoclassicals.

When the field concept came to dominate physics, many scientists in a flush of enthusiasm thought that a new discipline, energetics, would prove capable of unifying both the physical and the social sciences. As the name suggests, energy was the key to the mystery; and here the application to economics is clear and straightforward. Utility, the basic concept of neoclassical theory, is identical with energy.

Mirowski's claim is startling, but he documents to the hilt that Léon Walras and William Stanley Jevons, both of whom had scientific backgrounds, directly intended to use the physics of their day to transform economics into an exact science. Even more clearly, Irving Fisher, whose 1892 doctoral dissertation at Yale remains, if the reader will forgive me, a classic of neoclassicism, made crystal clear his goal. Fisher himself drew detailed parallels between mechanics and economics. His thesis was written, not under the supervision of an economist, but with J. Willard Gibbs, one of the greatest of all American physicists, as its director.

In the neoclassical view, utility is a vector-field corresponding to energy. Mirowski ably shows how the entire neoclassical edifice falls into place once one grasps this basic

idea. But this does not vindicate neoclassicism: far from it. Utility has to be regarded as an entity separate from the goods and services people consume, in a way that defies common sense. Such eminent neoclassicals as Milton Friedman were at one time skeptical about the validity of this notion of utility (p. 366).

An obvious neoclassical rejoinder is that whatever the intuitive implausibility of utility as a field concept, the system works. Mirowski dissents and challenges the school at its point of greatest pride, its use of advanced mathematics. He finds in the neoclassical system a profusion of incorrect assumptions and arbitrary errors. I cannot present at length the technical details of Mirowski's case but can indicate only a few of its highlights. The system is unable to explain production: it is goods and services that are produced, not energy or utility. Neoclassicals have been unable effectively to account for production through their field concept. Further, the system wrongly assumes that utility must have certain features needed to make mathematical manipulation easier. Unless these features are present, the powerful Hamiltonian techniques mentioned earlier cannot be used. But the assumption that utility has these features is without basis. Further, the system depends on the law of one price, another assumption Mirowski considers arbitrary. Hermann Laurent, a noted mathematician, pointed out some of these errors to Walras; but Walras could not grasp the points at issue.

Mirowski's criticisms appear penetrating and will give neoclassicals a difficult time. I am not entirely convinced, however, by his objections to the law of one price. This law states that a single price for each commodity tends to prevail on the market. Mirowski seems right that the law is, from the point of view of mathematics, arbitrary. But he too readily dismisses the "common-sense" point that competition among traders will eliminate differences in prices. For once one can retort to Mirowski that his vague references to strategic considerations and game theory (p. 236) are no substitute for a rigorous refutation of the law.

Of course, common-sense arguments have no place in a system that purports to be completely mathematical, and to the extent that neoclassicism has this goal, Mirowski's challenge to the law of single price is perfectly justified. But does contemporary economics altogether eschew arguments not based on physics? It will hardly do to dismiss the use of such arguments just because they do not conform to Mirowski's own picture of neoclassicism.

Regardless of this and other details, Mirowski's case is formidable. How can economics escape its longstanding bewitchment by physics? Readers familiar with Austrian economics cannot fail to note that the Austrian school avoids all of the errors that Mirowski finds in both classical substance accounts of value and neoclassical energetic theories of utility. Mirowski rightly notes that Carl Menger "cannot be considered a neoclassical economist" (p. 261), since he repudiated the imitation of physical science. But evidently viewing Menger's path as leading nowhere, he does not give a detailed analysis of the Austrian system. (Elsewhere, he refers briefly to Hayek but never to Mises.) Had Mirowski done so, he would have found the answer to his difficulties. In the Austrian view, exchange takes place only where each party values the good he gains more than the good he surrenders. By repudiating the spurious principle that exchange is an equality, the problem of conservation of utility disappears. Further, the best developed version of Austrianism, that of Mises and Murray Rothbard, views utility as simply a ranking of goods. It is not a mysterious substance or field; and there is no problem of integrating production and distribution. The theory always operates with preferences for concrete goods and services, not the quintessence "utility" to which Mirowski objects. With this school, I suggest, not with the institutionalism Mirowski favors, lies the future of economics.

There is much else in this outstanding work that merits discussion. Influenced by the anthropologist Mary Douglas, Mirowski believes that both economics and physics take many of their concepts from the human body; and he presents an elaborate scheme of the evolution of these concepts. Further, he views theories as metaphors that are imposed on reality. Like Donald McCloskey and Richard Rorty, he rejects a realistic theory of knowledge. I do not think this is the place to discuss these views at length, and any attempt to do so is handicapped by the failure of our author to define "metaphor." One question that does come to mind, however, is this: is not Mirowski's continual claim that precisely the same conservation laws are present in both physics and economics itself an instance of just the sort of domination by the metaphor of conservation he complains of in others? For Mirowski, it is apparently the conservation laws that must be conserved.

The book is immensely stimulating and suggestive. It is must reading for all economists and intellectual historians.

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[1] His institutionalism is discussed in more detail in his *Against Mechanism: Protecting Economics from Science* (Tottowa: Rowman & Littlefield, 1988), esp. pp. 57–93, 106–33, and 191–232.

[2] This is a phrase used by the philosopher Antony Flew.

[3] A minority view, favored by Hiram Caton, does take Descartes to be a materialist, but Mirowski does not refer to this interpretation.

The Myth of Scientific Public Policy. By Robert Formaini. New Brunswick, N.J.: Transaction Books, 1990.

Robert Formaini's illuminating work throws into question a key doctrine of social planners not satisfied with the free market. A common argument for the market emphasizes consumer sovereignty: the goods and services produced in a free economy will be those demanded by consumers, since profit-making entrepreneurs have every incentive to produce what consumers wish. Those who will not or cannot do so find themselves rapidly replaced by those more alive to the market's signals.

Against this, many supporters of government planning claim that the free market does not stand alone in its ability to give rise to desirable programs. Quite the contrary, scientific measures of analysis permit objective scientists to determine which programs best promote social welfare. Among the most important of the methods that are alleged to achieve these wondrous results, risk evaluation and cost-benefit analysis rank foremost. Formaini exposes the pretensions of these pseudo-scientific techniques with withering criticism.

Risk evaluation can be used either by itself or as part of cost-benefit analysis. It attempts to answer questions such as: what are the chances there will be a meltdown at a nuclear plant? or, how likely is an epidemic of influenza? Unless problems of this sort can be solved, scientific analysis of public projects cannot succeed. If the designers of a nuclear plant do not know the likelihood of a meltdown, they will be unable to assess the costs of building the plant. Formaini raises a far-reaching difficulty for all such attempts: no consensus exists on the nature of probability.

To some, probability is an objective matter. The chance, e.g., of drawing a particular card out of a well-shuffled deck is 1 out of 52, no more and no less. The figure has not been arrived at by empirical testing: instead, it follows from the mathematical theory of chances, whose axioms are *a priori*. Formaini, unsympathetic to this approach, raises two problems for it. First, it depends upon the existence of complete information: in the example just given, one must know that there are 52 equally likely possibilities. In cases that risk evaluators commonly deal with, however, full information cannot be obtained. Second, any actual results are consistent with the theory. If a very improbable

event occurs, the theory has not ruled it out. Since the rules of probability are "true by definition," the theory cannot be falsified.

The first of Formaini's points is well put, but I am not quite sure that I grasp what he has in mind in the second objection. Why is it a difficulty in the theory that it cannot be falsified? Incidentally, it is not quite right to say that the theory is made true by definition. (How incidentally *can* something be made true by definition?—a famous question posed by Quine.) The theory is based on certain axioms, which, though knowable *a priori*, are not definitions: of course, Formaini is right that definitions are also needed. I may well have misunderstood Formaini's point: he might mean that the question of the theory's application to "real world" cases is not settled by the theory itself. If so, he is perfectly correct.[1]

But these are mere quibbles. The view just discussed by no means stands alone in the field. The Bayesian approach, toward which Formaini is more sympathetic, regards probability as dependent on subjective estimates. It does not operate from an *a priori* basis but instead looks to the facts of a particular case. If a Bayesian claims that the chance of getting heads on the toss of a coin is 1-in-2, he will base his assertion on the evidence of past tosses of that coin. His estimates are always subject to revision as further information comes to light.

The dispute between the two views is not a theoretical issue with no practical relevance. As Formaini shows, the two variant approaches sometimes arrive at different estimates of probability for the same case. If so, the scientific pretensions of non-market decision makers already seem shaky. If no consensus exists on the way to estimate probability, how can it be claimed that there is a scientifically objective way of calculating benefits and costs?

The main thrust of Formaini's argument strikes to the essence. Furthermore, the theories must confront additional objections besides the ones our author has effectively urged against them. Ludwig von Mises contended that the calculus of probability, which he termed class probability, does not apply to individual events at all. To revert to our instance of the deck of cards, Mises would contend that one can properly speak only about the mathematical chances of classes of events. Nothing about an individual event, the drawing of a particular card, follows from class probability.

Even if one does not accept Mises's characteristically radical and incisive proposal, another severe problem faces the theory.

This point is especially prominent in the work of a writer of quite another stripe than Mises: John Maynard Keynes. In the *Treatise on Probability*, Keynes shows that the application of the theory to single events depends on a controversial and seemingly arbitrary assumption, the principle of insufficient reason.

And what about the Bayesian approach? Here I think that more might have been made of the fact that Bayes's theorem requires that one assign a prior probability. The choice of this figure can radically affect one's results, but it can be picked only on an arbitrary basis.

Formaini also proposes an improvement in the way probability estimates are applied. He suggests that the analyst modify his estimate by the degree of confidence he has in his calculation. "A simple formula can be added to probability calculations to allow for uncertainty attaching either to the data or the theory through which the data is [sic] manipulated" (p. 21). If one uses the Bayesian approach, has not uncertainty in the data already been considered in the calculation? So far as uncertainty about the theory one uses is concerned, Formaini's suggestion threatens to produce a regress. How is one to estimate one's certainty? How certain, again, is this calculation? Must we discount yet again for uncertainty? This problem was raised long ago by David Hume.

Formaini goes on to suggest that if a good event is expected, one should discount the likelihood of the event's occurrence; if one predicts something bad, the likelihood should be increased. Once again, I fear that I have misunderstood. It is not apparent why certainty about one's calculation should vary directly with the badness of an event, and inversely with the goodness; and in any case one cannot be more certain than $p = 1$, which will result in the original sum calculated, not an increase. But more likely Formaini intends the discount for the nature of the predicted event as another step in the calculation, not as a consequence of the certainty estimate. If so, he gives no justification for this additional step.

An objection that might be raised to Formaini is that his case is in a sense too good. If probability calculations lack a firm basis, why does this count against non-market methods of decisions alone? Is it not necessary for entrepreneurs in the market to calculate risk? Will not precisely the same problems of estimation confront private decision makers? Although the book does not directly address this problem, Formaini has the resources adequately to deal with it.

The response in fact emerges in the third chapter. Before this, however, Formaini briefly sets forward the method of the Austrian School. His second chapter accomplishes a great deal, covering in a succinct and accurate way the foundation of the Austrian School; its conflict with the German Historical School; the Austrian deductive method; the use of *verstehen*; and the development of Austrian economics in the twentieth century. (Incidentally, it was not the German Historical School, as Formaini thinks, who proclaimed themselves "intellectual bodyguards of the House of Hohenzollern." Though its members would have enthusiastically assented, the statement comes from Emil DuBois-Reymond. Also, Hayek did not leave Austria owing to the Nazis (p. 27); he was named to a chair at the London School of Economics in 1931. In addition, Karl Popper does not think that the inductive methods of science can falsify a theory, nor does he claim that a well-corroborated theory is true [p. 33]. His best-known doctrine is the utter rejection of induction.)

The book's third chapter, "A Subjectivist Evaluation of Cost-Benefit Analysis," is the best in the book. In painstaking detail, Formaini shows the numerous problems that confront cost-benefit analysis in the vain efforts of its proponents to elevate it to the rank of objective science. For one thing, a social discount rate must be estimated. This rate determines how much future benefits are to be lowered when conducting a cost-benefit analysis. If, e.g., someone proposes that a subway be constructed that will be able to carry passengers for 50 years, one cannot simply add together the benefits from travel 50 years' worth of passengers will receive. Future benefits are not worth as much as present gains: but how much less? As Formaini shows, there is no good way of telling.

Further, cost-benefit analysis usually rests on the assumption that perfect competition is a welfare ideal. In the Austrian view, this assumption is without basis. Why is a particular market structure more desirable than whatever is actually to be found on the free market?

To this the neoclassical have a ready answer. They claim that monopoly results in a welfare loss; further, any deviation from perfect competition imposes at least a degree of monopoly.

Formaini's response is forthright. The "welfare loss" in question depends on hypothetical preferences that are ascribed to people. The Austrians refuse to adopt this conception of preference, which they regard as arbitrary. The only acceptable conception of preference, as Austrians see matters, is

demonstrated preference. If an actor does something, one can say that at the moment he preferred the choice he made to any alternative available to him. On this view of preference, the claim that a welfare loss is caused by monopoly cannot get off the ground. Neither can alleged benefits from public goods expenditures be demonstrated. Of course, paying taxes that are used for public projects does not demonstrate a preference for these projects, since these subventions are exacted by coercion. The powerful tool of demonstrated preference enables the Austrian approach to respond to the objection I raised earlier. There is no special free market way of calculating probability, and the establishment of a free economy does not resolve the difficulties of probability discussed earlier. But we can say that if people on the market engage in a project, they have demonstrated a willingness to assume whatever risks are involved in that project.

The problems inherent in cost-benefit analysis are many and various. The welfare criteria that cost-benefit analysis analysts use are either ineffective or questionable. The Pareto criterion, according to which a project can be undertaken if at least one person is made better off and no one worse off, rules out almost all state activity. Thus resort is frequently made to the Kaldor-Hicks principle, which allows changes if the gainers from a project are able to compensate the losers. The criterion does not mandate actual compensation: it thus sacrifices the welfare of the losers to the winners. Formaini notes that sometimes planners attempt to add up total benefits and total costs: a project will go forward if benefits exceed costs to a greater extent than for any alternative. This procedure is not a “watered-down” version of Kaldor-Hicks, as the author claims (p. 55), since application of the latter criterion need not maximize welfare.

In a final chapter, Formaini gives a detailed account of the swine-flu vaccination program, a major debacle of 1976. The constant errors of the bureaucrats responsible for this program cast a grim light of humor over the pretensions of cost-benefit analysis to be scientific. The government medical establishment conjured up a swine-flu epidemic out of a handful of flu cases. Their prevention measures for the non-existent epidemic cost hundreds of people their lives.

In a brief postscript, the author sums up the lessons of his outstanding study. Ethics provides a much more solid basis for decision on whether public projects should be built than the supposed objective discipline of cost-benefit analysis. I wish that

Formaini had explained in detail his reasons for thinking that *Brown v. Board of Education* was decided in a morally correct way (p. 95). Common sense is a better guide than dubious expert assessments.

I have sometimes, I fear, been unjust to Formaini in the preceding remarks. For reasons of temperament, I tend to emphasize points of disagreement. But my overall reaction to this excellent book is one of wholehearted assent.

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[1] The passage that I have difficulty interpreting is on page 22.

The Great Depression of 1946

Richard K. Vedder and Lowell Gallaway

It seems inevitable that some Ph.D. student in economics some time soon will pick up a recent copy of the *Economic Report of the President* looking for a dissertation topic and learn that there was a Great Depression in 1946, a topic which he or she will then analyze using all the tools of modern economic analysis. The student will read that real gross national product in 1946 fell 19 percent, the largest single decrease in annual output in the century of recorded annual GNP data.[1] He or she will also learn quickly that from 1944 to 1947, real output fell by 22.7 percent. Looking up population figures, the student will observe that per capita output actually declined by more than one-fourth in real terms over the three years of conversion from war to peace, and did not regain the pre-depression (1944) level until 1964.[2]

From all of this the student will no doubt conclude that the heretofore neglected Great Depression of 1946 was the worst cyclical downturn in modern American economic history, and that by some measures it had a greater disruptive impact on the American economy than the earlier, more celebrated Great Depression of 1929–41. For example, in the earlier downturn, real per capita GNP surpassed the 1929 peak levels within 12 years, compared with 20 years it took to surpass the 1944 peak after the 1946 depression. Moreover, while the 1929–33 downturn was quantitatively a bit larger (30 percent vs. 23 percent), no single year exhibited a decline of the magnitude of that witnessed in 1946.

If the student is typical of most economics students today, he or she will lack a historical perspective. Therefore, that individual no doubt will fail to observe that the Great Depression of 1946 has been worsening every decade. In 1960, when *Historical Statistics of the United States, Colonial Times to 1957* was published, the reported decline in real GNP in 1946 was but 7.8 percent, and for the three years 1944–47 just 9.8 percent, hardly a great depression.[3] When the next edition of *Historical Statistics* was published in 1975, however, the 1946 decline was a more robust 12 percent, and the total business cycle downturn (1944–47) saw a drop in real output of 14.2 percent.[4]

By 1981, when the Department of Commerce reported revised national income data, the 1946 drop had reached a truly "depressing" 14.7 percent, with the episodic decline reaching 17.4 percent.[5] Five years later, in 1986, the 1946 depression truly earned the label of "great" when the latest revisions in statistics revealed the 19 percent drop discussed above. *The Great Depression of 1946 seems to be getting constantly worse, and if current trends continue should soon pass the 1929 depression in magnitude by any criteria*.

If our mythical student looks further in the *Economic Report of the President*, he or she will get even more puzzled and, perhaps, excited. The student will learn that the sharp decline in GNP occurred with unemployment rates below four percent, far below the normal peacetime rate in the twentieth century, either before or after the 1946 "depression."

He or she will also learn that this relatively full employment was achieved despite an extraordinarily contractionary fiscal policy. The federal budget deficit on a national income accounts basis in 1944 was some $54.5 billion, equal to 25.8 percent of GNP. That would be the equivalent in 1990 (in relation to GNP) of a deficit of about $1,400 billion. By 1947, the federal budget was in *surplus* by $13.4 billion, or 5.7 percent of GNP. The equivalent today (in relation to GNP) would be well over a $300 billion surplus. Among other things, the government in pursuing this extraordinarily contractionary fiscal policy fired (or "released from employment") roughly 20 percent of the total labor force. All of this had little impact on unemployment.

We know of no episode in American economic history that more keenly illustrates several insights from Austrian economics than the 1944–47 business-cycle experience. The ultimate irony is that the modern historical interpretation of that era suggests that it was a period that demonstrated the superiority of Keynesian economic doctrines. It was in this period that the death knell came to residual sentiments among the American economics profession that market coordination is the most appropriate and efficient means to assure reasonably "full" employment of productive resources. Politically, it was during this period that the federal government institutionalized Keynesian-style macroeconomic intervention with the Employment Act of 1946.

Despite the statistics cited above, conventional modern wisdom is that the transition from war to peace proceeded without a major downturn after World War II, and certainly

there was no “depression.”[6] Our subsequent discussion will show that interpretation is essentially correct. However, it is generally accepted that the smooth economic conversion resulted from “pent up” demand for consumer goods offsetting the reduction in defense spending. In other words, the Keynesian prescription that “demand creates its own supply” worked after World War II.

After studying this historical episode, we conclude the following:

(1) Conventional wisdom is correct on one thing: there was no depression in 1946, or anything resembling one.

(2) Accordingly, aggregate economic statistics need to be viewed with a skeptical eye, particularly in periods such as this where there are pronounced governmental interventions in markets.

(3) The failure of the nation to enter a depression after 1944, however, reflected not pent-up consumer demand so much as the dramatically ameliorative effects of changing relative prices on the macroeconomy.

(4) The smooth transition to peace was accomplished despite the existence of a fiscal policy that was the very antithesis of Keynesian economic prescriptions to deal with falling aggregate demand. The most dramatically contractionary fiscal policy in modern American history failed to materially alter the pace of economic activity.

(5) Keynesian economics triumphed in politics and among academic economists at the very time that empirical evidence was clearly exposing its explanatory weaknesses. The very empiricist-quantitative economists who rhetorically were selling the new economics of Keynes on the grounds that the evidence of the 1929–41 downturn showed the empirical bankruptcy of market-oriented economic doctrines were ignoring, perhaps deliberately, the 1944–47 empirical evidence that was devastating to the Keynesian paradigm.

(6) A market-Austrian interpretation of this historical episode is very much more in keeping with the evidence.

Statistics *Do* Lie

Some official Department of Commerce statistics on this historical episode as they were published in 1960, and as they were published in 1990, are included in table 1. Note that every single series has somewhat different numbers in 1990 than in

1960. Changes are comparatively minor for money GNP, the civilian unemployment rate, and civilian unemployment, but they are substantial for price changes as measured by the GNP price deflator and, as a consequence, for real GNP. Table 2 summarizes the percent change in the five statistics over the 1944–47 period.

Between 1960 and 1990, government economists approximately doubled their estimate of the inflation occurring from 1944 to 1947, thereby causing the estimated real GNP decline to more than double.

Table 1
Some Key Economic Indicators as Reported in 1960 and in 1990

	Data Reported in 1960		*Data Reported in 1990*	
Indicator	***1944***	***1947***	***1944***	***1947***
Civilian Unemployment Rate	1.2%	3.6%	1.2%	3.9%
Civilian Unemployment	670[a]	2,142[a]	670[a]	2,311[a]
GNP Price Deflator	115[b]	141[b]	15.3[c]	22.1[c]
Money GNP	$211.4[d]	$234.9[d]	$211.4[d]	$235.3[d]
Real GNP	$183.6[b]	$165.6[b]	$1,380.6[c]	$1,066.7[c]

[a]In thousands
[b]1929 dollars
[c]1982 dollars
[d]In billions
Sources: 1960 Data: *Historical Statistics of the United States, Colonial Times to 1957*; 1990 Data: *Economic Report of the President, 1990*.

Table 2
Percent Changes in Key U. S. Economic Indicators, 1944–1947

Indicator	***1960 Data***	***1990 Data***

Civilian Unemployment Rate	+200.0%	+225.0%
Civilian Unemployment (No.)	+219.7%	+244.9%
GNP Price Deflator	22.6%	44.4%
Money GNP	11.1%	11.3%
Real GNP	-9.0%	-22.7%

Source: Calculated from data found in table 1 above.

Substantial price controls were in effect in 1944, but were essentially abandoned by 1947. Thus official statistics based on controlled prices should tend to understate true equilibrium prices in 1944, and overstate the true inflation at market-clearing prices observed between 1944 and 1947. Yet the statistical revisions have tended to *increase* the reported inflation from 1944 to 1947, not decrease it. Following from that, the revisions in statistics over time have reduced the reported inflation during World World II. For example, reading the 1990 *Economic Report of the President*, one learns that the GNP price deflator rose a modest 13.8 percent in the four years 1941 to 1945, a lower annual rate of inflation than prevalent in the past two decades. [7] Yet if one looks at, say, the 1978 *Economic Report*, the reported 1941–45 inflation is 20.3 percent.[8] A few years earlier, in the 1975 edition of *Historical Statistics*, the wartime inflation was 26.5 percent.[9] Picking up the 1960 version of *Historical Statistics*, however, the increase in prices was reported to be 29.7 percent.[10] As time passes, it looks like the government was increasingly successful in curtailing inflation in World War II, and increasingly unsuccessful in containing it in the postwar era.

To this point, the various data revisions certainly seem to give justification to a common Austrian suspicion of over-reliance on aggregate economic statistics, particularly price indices, in evaluating the economy. Beyond that, the revisions serve to increase reported economic growth during the command economy era of World War II, and reduce it during the era in which there was a return to increased reliance on market forces in resource allocation, a conclusion that Austrians find hard to accept with equanimity.

Despite our suspicions to the contrary, we must concede, however, that it is possible that the earlier statistics were flawed, and that the revisions have served to paint a more accurate portrayal of the economic history of the period. Perhaps even

there really was a major depression in 1946 that no one was perceptive enough to recognize at the time.

One way to evaluate that possibility is to try to ascertain what prices would have been in the 1942–48 period if various historical relationships observed earlier held. Using those forecasted or predicted prices, we can then estimate trends in real GNP using the money GNP statistics on which there has been virtually no data revision and little dispute (see, however, below).

We developed a model to predict the GNP price deflator for the period 1916 to 1941, the era immediately before the World War II experience where price controls were imposed. The years chosen were dictated largely by data considerations. Four independent variables were chosen, two financial in nature and two proxying for real output. The financial variables were *M2* and the interest rate on four- to six-month commercial paper; the "real variables" were ton-miles of class A railroad volume and the total number of employed workers.[11]

Ordinary least squares regression procedures were used to estimate the GNP price deflator during the 1916–41 period. Actual values for the four independent variables were used with the estimated regression coefficients and constant term to calculate a forecasted value of the GNP price deflator for 1942 to 1948. The forecasting was aided by the fact that the estimated regression had a relatively good statistical fit ($R^2 = .822$), with actual and estimated values being rather close for the years immediately preceding the war. (See the appendix for more details.)

Taking the estimated GNP price deflator numbers for 1942–48, along with the accepted money GNP numbers, we calculated real GNP by year. In table 3, we present our estimates, along with the official estimates as they were reported in 1960 and 1990. Turning first to prices, we estimated that true equilibrium prices rose far more during World War II than any of the official estimates. Our estimate is that prices rose 46 percent from 1941 to 1945, compared with official estimates varying, over time, between 24 and 30 percent. The historical experience from which our calculations were extrapolated was an era largely (although not completely) free of price controls. Our estimated price index thus incorporates the disguised inflation hidden by the existence of controls that was manifested in shortages, black markets, shoddy quality of goods or services, etc.[12]

Table 3
U.S. Price and Real Output Trends, 1941–48: Three Interpretations

	*Real GNP**			*GNP Price Deflator*		
Year	*1960 Data*	*1990 Data*	*Authors' Estimates*	*1960 Data*	*1990 Data*	*Authors' Estimates*
1941	100.0	100.0	100.0	100.0	100.0	100.0
1942	111.5	118.8	117.1	113.2	106.5	108.0
1943	122.7	140.3	128.0	124.2	109.4	119.7
1944	132.4	151.8	127.6	126.4	110.9	131.7
1945	130.4	149.0	116.1	129.7	113.8	146.1
1946	120.3	120.6	108.5	141.8	140.6	155.6
1947	119.4	117.3	115.7	154.9	160.1	161.6
1948	125.7	121.9	125.6	163.7	171.0	165.6

* Numbers are indexed, with 1941 = 100.
Source: see text.

By contrast, we estimate that while inflation continued after the war (imprudently, we might editorially add), in a meaningful sense it was far less than what has been reported, since repressed, disguised inflation came out in the open. We estimate prices rose about 13 percent from 1945 to 1948, a rather substantial inflation rate, but far less than observed during the war or reported by governmental officials (26 to 50 percent, depending on the date of the statistics).

Our estimates of price trends are very similar to estimates for the net national product price deflator derived by Milton Friedman and Anna Schwartz.[13] They estimate price increases of nearly 44 percent for 1941–45, much closer to our 46 percent estimate than to the official estimates of 24–30 percent. Similarly, they obtain a 16 percent increase for the 1945–48 period, only moderately larger than our 13 percent figure. By contrast, our estimated wartime inflation is considerably higher

than that estimated by Mills and Rockoff, which we believe is implausibly low.[14]

Dividing money GNP by the estimated deflator to get estimated real GNP, we get a rather different historical interpretation than what the government statistics, particularly the recent ones, suggest. Our scenario suggests output grew substantially during World War II, but far less than the recent government revisions would suggest (and moderately less than the earlier governmental data suggested). Moreover, our results suggest output peaked in 1943, then held steady in 1944. The official versions have output rising noticeably in 1944.

Our estimates suggest a peak-to-trough decline in real output of slightly over 15 percent, compared with nearly 23 percent with the current official government numbers. Not only is our estimate of the decline about one-third smaller than what the current numbers suggest, but it also suggests that much of the decline occurred in the latter part of the war itself. The estimated 1946 output drop was only 6.5 percent, less than that for 1945. Moreover, we estimate output rose in 1947, rather than fell. Since we calculated that the 1947 output increase almost offset the 1946 decline, we suggest there was virtually no decline in output from 1945 to 1947, compared with the current statistical data's suggestion of a decline of 21 percent (the 1960 data revealed a fall in output of slightly over eight percent).

Certainly our estimates are more consistent with the written commentary of the period, which emphasized the comparative smoothness of the transition from war to peace. They also are about what one would expect if one accepts the premise that wartime inflation was understated because of price controls, and consequently postwar inflation, while real, was overstated. Our estimates would seem consistent with the 1960 Department of Commerce data modified to take account of price interventions by the federal government. Whether our estimates are correct or not, it is clear that the aggregate government statistics on output, prices, etc., must be used with extreme caution, and that data "revisions" do not always bring about improved insight into historical phenomena.

Why the Error in the Government's Revised Statistics?

Why is it that the official GNP statistics for the reconversion period become continually worse over time? Examination of the calculation procedures used reveals that the recent estimates are

a complete statistical artifact.

The aggregate GNP price deflator is the weighted sum of several component price indices, such as the personal consumption expenditures index (which, in turn, has several components), the index for exports, imports, government purchases of goods and services, and private investment. Numbers are indexed around a base year, currently 1982. Over time, the price index for the government purchases of goods and services has risen significantly more than for other components. For example, in 1982 it is estimated that the aggregate price of government goods and services averaged 8.13 times the 1946 level, compared with "only" a 4.55-fold increase in the price of consumer goods. Since 1982 is set equal to 100, that means the 1946 index number for the government goods and services price deflator is 12.3 (100 divided by 8.13); the figure for the personal consumption expenditure deflator is 22.0.

As reconversion proceeded, the weights used to measure consumption's contribution to the aggregate price index dramatically increased, while the weights used to measure government purchases contribution dramatically decreased.[15] Since the consumption index had a bigger number (22 in 1946) than the government purchases index (only 12.3), the calculated aggregate GNP deflator rose in part merely from the shift from government spending to consumer spending.

The 1990 data show the total GNP price deflator rose from 15.7 to 19.4 from 1945 to 1946, an increase of 23.6 percent. Yet the subcomponents of the index are all reported to have increased less—consumption by less than nine percent, investment by about 15 percent, government purchases by four percent, etc. Only by changing the weights and by arbitrarily giving higher numbers to the non-government purchases component of the index do you get this type of result, which is then used with nominal GNP data in calculating equally artificial real GNP. Had prices of governmental purchases risen exactly the same as other components in the index over time, the distortion would not have been observed. In earlier years, the distortion was smaller because the disparity between the government purchases price index and the other index components was much smaller than observed now (since the series have diverged more over time because of consistently faster rising prices of governmental goods and services).

Reevaluating Governmental Expenditures

It can be argued that even our estimates above *understate* the robustness of the postwar economy, and overstate wartime growth, because of a second flaw in the data. While transactions in the private market economy are appropriately valued for GNP calculations by using equilibrium prices, governmental purchases of goods and services may be overvalued, since they are not generally sold in a truly competitive market environment.[16]

Looking at it from the demand side, many consumers of governmental services are forced to "purchase" those services at a cost (reflected in taxes, inflation, or higher interest rates) above what the consumer would be willing to pay if permitted to buy the services on a non-coercive basis. Typically there is a "deadweight loss" as opposed to the consumer surplus typical in non-coercive market transactions. From the supply perspective, monopolistic governmental bureaucrats lack the incentive to minimize resource use, and thus services are provided less efficiently than if sold competitively in the private market economy. This is probably why, for example, governmental purchase prices have risen more than private sector prices over time.

Suppose that during the 1941–48 period, governmental purchases of goods and services had a true value equal to 75 percent of the stated value used in calculating GNP. Suppose also the true GNP price deflator is as we have estimated it in table 3. Under these assumptions, real output rises but 18.8 percent from 1941 to 1943, falls very slightly in 1944 and by a bit over seven percent in 1945. The 1946 decline in real GNP is a paltry 1.1 percent. Output by 1947 is less than two percent below 1944 levels, and by 1948 output exceeded the wartime peak by about six percent (compared to a 19 percent decline using data in the 1990 *Economic Report of the President*).

We calculated the numbers in the previous paragraph to illustrate the importance of the assumption that government purchases of goods and services are valued at the amount of government expenditures. The 75 percent valuation chosen was arbitrary. For example, had 50 percent been used, there would have been a calculated *growth* in real GNP in 1946, and a noticeable decline in output in the late war years. What the true figure should be is debatable. Nonetheless, it seems highly likely to us that the true GNP growth during World War II tends to be seriously overstated because of the increasing relative importance of governmental expenditures, and tends to be understated in the postwar years because of the reverse

phenomenon.

Simultaneous with our work, Robert Higgs has examined the real output question for the 1940s.[17] His conclusions are similar to ours; indeed Higgs goes further. Carefully examining the pioneering work of Simon Kuznets, the contributions of William Nordhaus and James Tobin, as well as others, Higgs believes World War II was not a period of prosperous growth that is typically depicted, and, more relevant to this paper, that there was prosperity and no downturn in the postwar reconversion period.[18] He believes, correctly in our judgment, that the military command economy of the war tended to lead to excessive output valuations that have led to fundamentally flawed national income statistics.

Economic Interpretations of the Postwar Reconversion

It was widely believed during the latter part of World War II that substantial unemployment would develop after the war. A review of forecasts by Michael Sapir confirms the fact that many economists believed a severe recession or depression was coming.[19] That view was held by most federal officials as well; as one well-known writer on the subject put it, "In the summer of 1945 the belief was fairly widely held in Washington that unemployment would be a serious problem during the winter of 1945–46 and a strong deflationary tendency was predicted."[20]

In part, the prediction of depression reflected the influence of the secular stagnationists, led by leading Keynesian disciple Alvin Hansen, who argued that the investment boom that had stimulated American economic growth had stalled after the closing of the frontier and the slowdown in population growth.[21] In part, it reflected a more short-term Keynesian concern with falling aggregate demand in the face of decreased government expenditures. The thought of a rapid reduction in government military spending provided nightmares to some Keynesians. Hansen, writing in 1943, said: "When the war is over, the government cannot just disband the Army, close down munitions factories, stop building ships, and remove all economic controls."[22] Yet that is precisely what the government did (although it took a year to remove most controls).

Politicians took the dire predictions of economists seriously. Speaking to the Congress a few days after the Japanese

surrender, President Truman said of reconversion, “Obviously during the process there will be a great deal of inevitable unemployment.”[23] Truman was concerned that a fall in purchasing power would retard recovery. In calling for an increase in, the minimum wage and extended coverage, Truman said “the existence of substandard wage levels sharply curtails the national purchasing power and narrows the markets for the products of our firms and factories.”[24]

A few days earlier, the prestigious Committee for Economic Development, representing 2,900 businessmen and headed by prominent industrialist Paul G. Hoffman (Chairman of the Studebaker Corporation) called for federal aid to assist the newly created jobless to move to areas where jobs were created.[25]

At the same time, however, the use of two conventional Keynesian unemployment remedies, tax cuts and public works projects, was largely rejected. Truman did call for the passage of a Full Employment Act, but proposed little in the way of new public works spending or tax relief to stimulate aggregate demand.[26] Indeed, prominent Republicans were more vehement in calling for income tax cuts than the Democrats, with the ranking Republican member of the House Ways and Means Committee calling for a 20 percent income tax cut.[27] The *New York Times*, summarizing Congressional feelings on public works spending, concluded:[28]

> Only a short time ago, the tendency at the nation’s capital was to think in terms of public works as a major factor. It now seems to be agreed that they should be regarded only as a part of a broad program, or as a last resort in an emergency, and that private enterprise must be relied upon to provide the large-scale employment necessary.

Despite the pessimistic concerns of economists and politicians, most of the news around the time of the Japanese surrender was upbeat with regards to the reconversion process. Within three days of V-J Day, one reporter wrote “reports indicate that industry is reconverting its plants from war to peace much more quickly and early, and that reconversion unemployment is much smaller than anticipated.”[29]

This did not stop the economic forecasters from predicting massive unemployment. Indeed, the faster-than-expected discharge of soldiers led some of them to revise their estimates of unemployment *upward*. For example, on September 1 *Business*

Week predicted GNP in 1946 would be 20 percent below the 1944 levels and that unemployment would peak "closer to 9,000,000 than 8,000,000."[30] The 9,000,000 figure represented about 14 percent of the projected civilian labor force.

Businessmen and Wall Street did not listen to the economists. The Standard and Poor Industrial stock index rose more than 30 percent from the fall of 1945 to the fall of 1946. As one commentary put it, "the simple fact is that the transition from war to peace production isn't proving too rough."[31] As early as September 1945, *Business Week* was revising its estimate of unemployment for the end of 1945 down to 4.0 to 4.5 million from 6.0 million.[32] A CED survey of top businessmen predicted relatively high employment levels, with the number of jobs to rise 24 percent above the 1940 level and only 12 percent below the wartime peak.[33]

Still, even in December 1945 economists were predicting that "depression is just around the corner." Robert Nathan predicted six million unemployed by the spring of 1946, implying an unemployment rate of 10 percent.[34] Veteran Department of Labor economist Isidore Lubin decided, in *Business Week*'s opinion, to "play in safe," predicting a wide range; six to nine million unemployed.[35] Even the minimum estimate turned out overly pessimistic by nearly a factor of three.

The Revised Keynesian Interpretation of Reconversion

Yet within a year of the war's end, it was clear that the pessimistic predictions were spectacularly wrong. Accordingly, economists rushed to put a new interpretation on events consistent with the new Keynesian theology that became deeply instilled in many of them. The postwar prosperity (they did not have the benefit of the statistics in the 1990 *Economic Report of the President*) was attributed to pent-up demand. In December 1946, the first report of the newly created Council of Economic Advisers, drafted primarily by Edwin Nourse, was representative of the new interpretation: "We have a postponed consumer demand, enterpriser ambitions, and purchasing power which hold the potential of some years of great activity . . .,"[36] The view expressed by the Council quickly became enshrined in many cited works published in this period. One of the nation's foremost experts on business cycles, Robert A. Gordon, wrote:

> Even with the decline in government spending, aggregate demand was sufficient to maintain full employment. . . . Consumption increased rapidly in the face of a decline in GNP. Here lies the main part of the answer to the mildness of the reconversion recession.[37]

Alvin Hansen said much the same thing:

> The country came out of the war rich in monetary assets and monetary savings and desperately short of consumers' durables, houses, business plant and equipment. This laid the ground work for a vast postwar prosperity. . . .[38]

The Hansen-Gordon interpretation quickly found itself a part of the standard surveys of American economic history published in the 1950s and later. In the popular second edition of the Harold Williamson-edited textbook on American economic history, Harold Somers noted:

> A striking aspect of the postwar economy was the failure of predictions of postwar depression made by most economists. In general, the effect of deferred demand, financed by accumulated liquid holdings, was underestimated.[39]

The author of the leading selling textbook for many years, Harold Faulkner, echoed this theme, somewhat perceptively, however, giving a bit more emphasis to the investment and export demand dimensions of aggregate demand:

> The "temporary props" for this prosperity were mainly three: business expenditures for reconversion and for new construction and equipment; heavy consumer spending, much of it for commodities unobtainable during the war, and heavy export of goods and services . . .[40]

While modern textbook authors, perhaps bewildered by the contemporary statistics for that era, now play down the postwar reconversion experience, there still seems to be acceptance of the notion that consumers spent America into prosperity. Jonathan Hughes, who sensibly still uses the less-biased 1960 data in

analyzing the period, says “consumers now could find something to own: new cars, refrigerators, soft goods. The country went off on a well-earned spending binge.”[41] We could find no textbook that explicitly rejected the Hansen-Gordon interpretation.[42]

Thus within a few years of the end of World War II, the orthodox Keynesian demand explanation for the low unemployment during the postwar transition had become enshrined in the literature and in the training of more than a whole generation of economic historians. The postwar experience was cited as further, evidence of the efficacy of demand management macroeconomic policies, when in reality overwhelming empirical evidence refuted that very conclusion.[43]

Assessing the Keynesian Interpretation

There are two empirical problems with the “pent-up demand” explanation of the postwar reconversion: timing and magnitude. It is alleged that consumption and investment spending rose dramatically to offset declining government spending, so that aggregate demand was maintained, thereby permitting essentially full employment. Table 4 gives data on some key economic indicators by quarters for the 1945–47 period. By most indicators, the economic decline associated with the postwar reconversion reached its trough no later than the first quarter of 1946. In that quarter, the civilian unemployment rate peaked, while industrial production and nominal GNP reached their lows for the business cycle.

Keynesian analysis argues that changes in aggregate demand determine the level of both nominal and real economic activity. Using armed forces employment as our measure, military activity peaked in the second quarter of 1945. From that time to the trough of the mild downturn in the first quarter of 1946, government purchases of goods and services fell an extraordinary 67.5 percent, or $65.7 billion.

Table 4 Eight Key American Economic

Indicators, Quarterly Data, 1945 I to 1947 IV

Quarter		*Money GNP*[a]	*Unemp. Rate*[b]	*Corp. Profits*[c]	*Ind. Prod.*[d]	*Layoff Rates*[e]	*Average Workwk. Manuf.*[f]	*Govt. Purch.*[g]	*Housing Starts*[h]	
1945	I	$217.6	1.10%	$10.2	123	0.67	45.4	$98.6	123	
	II	219.2	1.17	9.6	117	1.23	44.6	97.3	156	
	III	210.4	2.11	6.9	98	5.57	42.0	80.2	191	
	IV	206.8	3.66	6.5	86	1.77	41.4	55.2	393	
1946	I	197.7	4.14	8.8	84	1.77	40.7	31.6	718	
	II	205.3	4.02	11.5	87	1.37	40.1	26.2	685	
	III	215.6	3.66	15.5	93	0.77	40.2	25.5	630	
	IV	220.7	4.07	18.0	96	0.90	40.5	26.9	625	
1947	I	225.1	3.81	18.4	98	0.87	40.5	24.6	702	
	II	229.3	4.08	17.6	98	1.17	40.2	25.4	747	
	III	233.6	4.06	17.6	99	0.90	40.1	25.5	912	
	IV	244.0	3.72	19.3	101	0.87	40.8	26.1	1,007	

[a] Seasonally adjusted, in billions.
[b] Civilian unemployment rate, seasonally adjusted.
[c] After-tax corporate profits, in billions, seasonally adjusted.
[d] Industrial production, seasonally adjusted. 1947–1949 = 100.
[e] Layoff rates per 100 workers in manufacturing, not seasonally adjusted.
[f] Average hours worked per week, manufacturing, not seasonally adjusted.
[g] Government purchases of goods and services, not seasonally adjusted, in billions.
[h] Housing starts, in thousands, seasonally adjusted.

Sources: Geoffrey H. Moore, ed., *Business Cycle Indicators* (Princeton: Princeton University Press for the NBER, 1961); GNP: Department of Commerce, *National Income & Product Accounts of the United States* (Washington: Government Printing Office, 1981); Government Purchases: *1949 Statistical Supplement to the Survey of Current Business* (Washington, D.C.: Government Printing Office, 1950).

Over the same period, consumption spending rose but $14 billion, barely 20 percent of the fall in government spending. Whatever the merits of the “pent-up” demand argument, there was only a modest increase in consumption during the critical period of demobilization and reconversion, to be sure in part because of capacity constraints on consumer goods industries. Investment spending rose a more robust $21.6 billion, and net exports by $9.8 billion, but collectively the increases in demand

fell about $20 billion short of decline in government spending, leading money GNP to fall a rather sharp 10 percent.

By the end of the first quarter of 1946, the process of reconversion was largely completed. Nearly seven million persons had left the armed forces, and government spending had fallen well over 90 percent of the way from the wartime peak to what would be the postwar low in 1947. Federal finances had moved from a massive deficit position (equal to 20 percent or more of GNP) to a budget surplus. Monetary policy also moved towards a much more contractionary stance, although monetary growth was still high by long term historical standards. Bank deposits and currency grew slightly over seven percent from the second quarter of 1945 to the first quarter of 1946, less than half the nearly 15 percent growth observed over the preceding three quarters (the third quarter of 1944 to the second quarter of 1945). The growth in bank reserves similarly declined by about 60 percent.[44]

As the nation moved from a radically expansionary to a contractionary fiscal policy in less than a year, and as it dramatically slowed the extraordinary monetary expansion, did the nation witness what the Keynesian paradigm suggested would happen, and what virtually all economists predicted? No. Unemployment in the first quarter of 1946 averaged slightly over four percent. To be sure that was more than the rate of less than two percent existing in early 1945. Also, even our revised national income statistics would indicate there was some output decline. *Yet the rate of unemployment "peaked" at a rate low by historical norms, below the average of the prosperous 1920s, or the 1950s*. Unemployment was low, long before any "pent up demand" had an opportunity to play a role. Automobile production was still depressed in early 1946, and expenditures on other major consumer goods were still well below normal peacetime, much less abnormally high, levels.

The latter point is empirically verified by the ordinary least squares estimation of simple consumption functions using three data sets for other (presumably "normal") periods, then estimating what consumption should have been for the 1945–47 period assuming the consumption-income relationships of the other periods held. Specifically, we examined annual data for 1929–1941 and for 1948–1970, and quarterly data for the first quarter of 1948 through the fourth quarter of 1959.

The findings are interesting:

(1) All three data sets show that actual consumption did not

rise above predicted levels until 1947, well after reconversion was largely over and after the labor market adjustment was completed.

(2) In 1946 consumption spending was still several billion dollars below predicted ("normal") levels by all three data sets. In that connection, in the first quarter of 1946, the personal savings rate (personal savings as a percent of disposable personal income) was still nearly 11 percent, well above historical norms. [45]

(3) The quarterly data suggest that actual consumption rose above "normal" or predicted levels only in the second quarter of 1947, nearly a year after demobilization was essentially completed, a year after real GNP had started to rise, and 19 months into a postwar labor market experience in which the unemployment rate had never exceeded 4.2 percent.

An Alternative Explanation for the Smooth Postwar Conversion

Before the rise of Keynesian economics, most economists believed that what is now termed "cyclical" unemployment resulted from wages in excess of their market-clearing levels. In figure 1, unemployment exists at wage w, and is denoted by the distance between the original demand for labor curve D_1 and the supply for labor curve S_1 at wage w. The observed unemployment can be eliminated in four ways:

(1) a lowering of the money wage from w to w';

(2) an increase in the marginal physical product of labor reflecting a technological advance or other productivity-enhancing development; this would lead the demand curve to shift towards D_2, eliminating unemployment;

(3) an increase in the price of commodities, raising the nominal value of the marginal product of labor, leading to a shift in the demand curve; the shift in the demand curve could result from a combination of productivity advance and price increase;

(4) a reduction in labor supply to S_2.

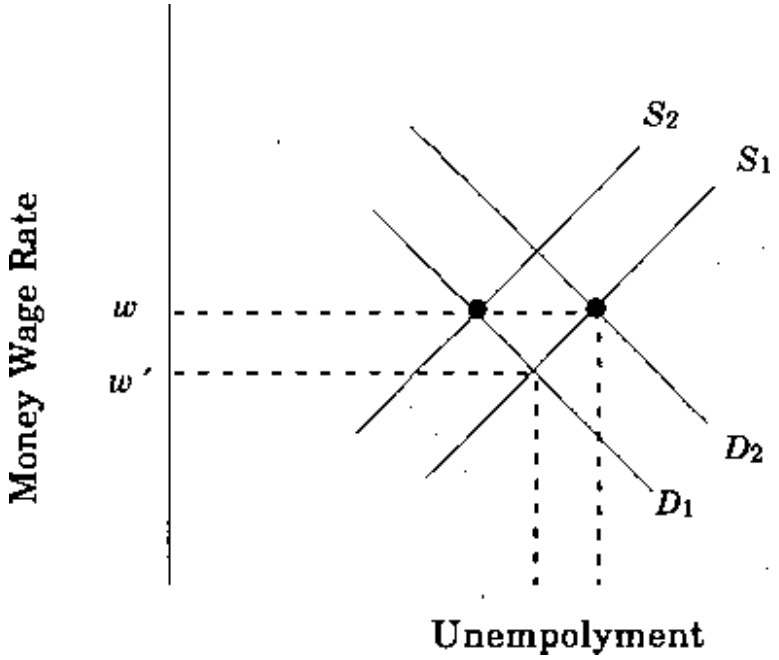

Figure 1. Wage Rates and Unemployment

All four of the responses mentioned above impact on equilibrium wage levels, so it is not too much of an exaggeration to state that regarding unemployment, traditional labor market analysis suggests that "wages alone matter." This is in marked contrast to the Keynesian perspective that dominated economic thinking from the 1940s through the 1960s that, with little exaggeration, said that "wages do not matter." A small band of economists, including Ludwig von Mises, F. A. Hayek, Benjamin Anderson and W. H. Hutt, never abandoned the notion that wages are critical in unemployment determination, but these voices carried no weight in the development of the consensus interpretation of why America avoided a depression after World War II.[46]

Yet the empirical evidence, which suggests that "pent up" demand played no meaningful role for nearly two years in which unemployment stabilized at low levels, is consistent with the theory espoused above. This is not to deny that consumers hungered for consumer goods. Nonetheless, in the critical reconversion period, the growth in actual consumption was modest compared with the reduction in federal defense-related spending.

Table 5
Selected Characteristics of the American Labor Force, June 1945 and June 1946

Labor Force Characteristic	*June 1945*[a]	*June 1946*[a]
Non-Institutional Population[b]	105,290	106,210
Total Labor Force	67,590	62,000
Total Employment	66,700	59,430
Federal Employment	15,849	5,879
Armed Forces	12,130	3,070
Civilian	3,719	2,809
Non-Federal Employment	50,851	53,551
Civilian Employment	54,570	56,360
Male	34,710	39,650
Female	19,860	16,710
Female Civilian Employment as % of Total	36.39%	29.65%
Unemployment	890	2,570
Male	460	2,010
Female	430	560
Unemployment Rate (% of Civilian Labor Force)	1.60%	4.36%
Unemployment Rate (% of Total Labor Force)	1.32%	4.15%
Labor Force Participation Rate	64.19%	58.37%
Employment-Population Ratio	63.35%	55.96%

[a] Age 14 or over.
[b] In thousands.

Sources: *1949 Statistical Supplement: Survey of Current Business*, p. 53; *Monthly Labor Review* (August and September 1946).

To begin our look at this evidence, it is interesting to compare labor force statistics at the height of mobilization, June

1945, with statistics just exactly one year later, June 1946 (see table 5).

The total labor pool grew by nearly one million over the year, yet the labor force fell by nearly 5.6 million. The end of the war was accompanied by an enormous drop in the labor force participation rate. In particular, millions of women voluntarily decided to withdraw from the labor force and reverted to their traditional roles as mothers, wives, and housekeepers. About 56 percent of the potential unemployment created by the almost 10 million decline in federal employment was absorbed by voluntary exit from the labor force.

The word "voluntary" in the preceding paragraph is important. It is presumed in a free society that labor voluntarily enters into labor market decisions. Yet during World War II, millions of men were drafted and became part of the labor force; some of them may have not voluntarily been part of that labor force in the absence of conscription. Thus the wartime unemployment rates of under two percent were low, at least in part, because the normal rules of non-coercive labor market participation did not apply. Thus the postwar rise in the reported unemployment rate, modest as it was, still overstated the true recessionary conditions that existed.

Yet the sudden reversion of labor supply to more normal levels was not the only factor in the moderate postwar unemployment. Non-federal employment grew 2.7 million in this first postwar year, in a period before the major consumer goods industries had resumed full production. Indeed, factory employment in June 1946 was still more than 10 percent below the June 1945 levels (because of declining defense-related production), implying the job growth in non-manufacturing, non-federal employment was actually more than four million jobs. More than 27 percent of the problem that the release of 10 million government employees created was eliminated by increased civilian employment, most of it in the private sector. If defense industries are considered, demobilization from June 1945 to June 1946 meant the loss of over 11 million jobs, about four million of which (about 36 percent) were absorbed in the civilian economy.

Why was non-manufacturing civilian employment soaring by over 10 percent in one year, particularly when one considers that economists were widely predicting a resumption of the Great Depression of the 1930s, and when one considers that the mainline durable goods industries (which were in manufacturing

in any case) were still at below normal production? How could millions of new civilian jobs be created when there was "underconsumption" by normal standards?

The answer lies, we think, in the other forms of unemployment-determining labor market adjustments discussed above: changes in money wages, prices, and the productivity of labor. The money wage divided by prices is called typically the "real wage." Real wages adjusted (by division) to take account of productivity changes can thus be called the "adjusted real wage." It is our contention that, in addition to reduced labor supply, a decline in the adjusted real wage helped absorb the more than 11 million workers released in the first year of the demobilization.

Directly calculating what happened to the adjusted real wages is difficult for a variety of reasons. There is no accepted data series giving hourly wages for the entire labor force before 1947. Annual earnings figures are of questionable value because of a major reduction in overtime work at the conclusion of the war. Regarding prices, the deficiencies of price indices, particularly in a period when price controls are changing, are well known. Similarly, deficiencies in price indices impact on the calculation of labor productivity.

Nonetheless, we calculated the adjusted real wage for labor some 18 different ways, using three different measures of hourly wages, three different price indices, and two different estimates of changing labor productivity. Specifically, we used hourly earnings in manufacturing, retail trade, and contract construction for our money wage measure, and the consumer price index, wholesale price index, and GNP price deflator in calculating real wages, and real private gross domestic product per man-hour, and real private gross domestic product per unit of labor input as our measure of labor productivity.[47]

The calculations reveal that for 1946, some 14 of 18 estimates show a decline in the adjusted real wage from 1945 levels, with the median decline being 2.35 percent. In no case was there an estimated increase in the adjusted real wage of greater than two percent. Similarly, making calculations for 1947 reveals even more striking results. Some 17 of 18 estimates of the adjusted real wage for 1947 are below 1945 levels (the single exception showed a 0.5 percent increase), with the median estimate recording a decline of 7.15 percent. Using the median, it would appear the adjusted real wage tended to fall some in 1946, and continued to fall in 1947, perhaps explaining the continued robust growth in employment that year.

Elsewhere we have argued that New Deal "underconsumptionist" reasoning led to wage-enhancing legislation that prolonged the Great Depression of the 1930s.[48] Some dimensions of reconversion served to reduce (although not eliminate) some deleterious unemployment effects of the New Deal legislative initiatives. For example, the peacetime transition meant a fall in the average work week, as weary wartime workers sought an increase in leisure time. With a fall in the length of the average workweek came a decline, other things equal, in money wages. Suppose a worker making one dollar per hour worked a 45 hour week in early 1945. Because of the Fair Labor Standards Act of 1938, the worker received $1.50 per hour for hours worked past 40, or a total of $47.50 for a 45 hour week, slightly over $1.05 in average hourly pay. A reduction in hours to 40, the nominal hourly wage left unchanged, lowered the paycheck to $40 ($1.00 per hour), a decline in over 5 percent in the average hourly wage. This example was a common occurrence.

Another development, unrealized at the time, was the relative decline in the importance of labor unions in the economy. Labor union membership as a percent of civilian employment reached a peak in 1945 and declined after the war (and has continued to decline ever since). For example, in 1945, union membership equalled 26.59 percent of the civilian labor force; in 1946, the proportion had fallen fairly noticeably, to 25.03 percent, and then to 24.58 percent in 1947.[49] The decline occurred despite a rise in the proportion of workers who were male (more inclined to unionize). The decline in relative union importance reduced somewhat the pressures on wage levels that collective bargaining imposes.

At least two factors contributed to the relative decline in union strength. First, the shift in employment from the relatively union-intensive manufacturing sector to the less unionized service sector was a major factor. Even within manufacturing, however, the demise in the War Labor Board after late 1945 removed a pro-union form of governmental intervention. The WLB consistently promoted collective bargaining in war plants and the end of the war brought a close to this activity.

Because of the data problems mentioned earlier in the paper, however, we have only limited faith in the estimates of falling adjusted real wages given above. Fortunately there is an alternative way of discerning the change in adjusted real wages that avoids some of the problems associated with using price

indices, etc. When the same price index is used in calculating real wages is utilized in determining what happened to labor productivity, it turns out that the adjusted real wage is simply equal to money wage payments divided by total output or, more appropriately, personal income.

Specifically, real wages are equal to hourly money wages (*w*) divided by some price index (*P*), or *w/P*. Similarly, labor productivity equals money output per hour (O) divided by a price index, or *O/P*. Assuming the same price index in both calculations, dividing *w/P* by *O/P* gives *w/O*. The latter variable is simply labor compensation as a proportion of GNP or, using distributive shares data, personal income.

Table 6
Compensation as a Percent of GNP and Personal Income, 1945 to 1947

Quarter		*Employee Compensation**	*Personal Income**	*Money GNP**	*Compensation as Personal Income*	*% of: GNP*	
1945	I	$122.5	$174.4	$222.6	70.2%	55.0%	
	II	121.6	174.2	225.0	69.8	54.0	
	III	117.4	170.7	213.0	68.8	55.1	
	IV	109.1	168.6	200.3	64.7	54.5	
1946	I	105.1	168.5	199.1	62.4	52.8	
	II	109.8	173.5	206.3	63.3	53.2	
	III	114.0	181.4	221.1	62.8	51.6	
	IV	116.7	183.8	224.0	63.5	52.1	
1947	I	118.5	187.8	228.2	63.1	51.9	
	II	119.8	187.6	233.6	63.9	51.3	
	III	123.1	196.6	232.4	62.6	53.0	
	IV	127.7	201.7	248.6	63.3	51.4	

* In billions of dollars.

Sources: *1949 Statistical Supplement, Survey of Current Business* (Washington, D.C.: Government Printing Office, 1950), pp. 6, 7; authors' calculations. GNP statistics differ from those used elsewhere in the paper because of more recent revisions;

data for 1945 are not available in those revisions.

Table 6 gives data on employee compensation, personal income and gross national product by quarters. Note that the ratio of employee compensation to income or output falls after the conclusion of the war. Using labor's share of personal income, the decline is from the 69–70 percent level late in the war to about 63 percent in the 1946 and 1947 quarters. Using labor's share of GNP, the decline is from 54–55 percent in the late war (first three quarters of 1945) to 51–53 percent in the 1946 and 1947 quarters. However calculated, labor's share declined, meaning the aggregate adjusted real wage tended to fall. These findings thus are consistent with the results suggested by wage, price, and productivity data. Millions of workers were hired by business despite an uncertain economic future in large part because "the price was right."

The fall in the adjusted real wage meant an increase in remuneration of capital. After-tax corporate profits, never much over $11 billion on an annualized basis during the war, rose to about $18 billion (on an annual basis) by the last quarter of 1946.[50]

Nominal interest rates remained extremely low, increasing the spread between anticipated return on invested capital and the cost of borrowed funds. For example, the average interest yield on a triple-A (Moody's) corporate bond in 1946 was 2.53 percent, the lowest of any year since that statistic has been kept.[51] A major factor in the low interest rates, despite a relative tightening in monetary policy, was the government budget surplus that developed in 1946. The federal government, in effect, moved from being a supplier rather than a demander in the loanable funds market. Perhaps the most massive move towards a contractionary (in a Keynesian perspective) fiscal policy in the nation's history helped to create conditions in capital and money markets that assisted in the transition. The postwar era was a classic case of "reverse crowding out." Rising profits, and the anticipation of future increases, stimulated investment spending (the only truly robust major component of aggregate demand).

Rising profits led to rising equity values and higher net worths. Raymond Goldsmith estimates the national wealth rose far more in the two years from 1945 to 1947 (46.4 percent) than in the 16 years from 1929 to 1945 (31.1 percent).[52] Whereas the anti-capitalistic innovations of the New Deal probably caused what was in real terms a *decline* in national wealth in the 1929–

45 era, the modest but real retreat from interventionism along with a fall in the adjusted real wage and the associated rise in returns to capital led to a significant growth in wealth in the demobilization period.

An excellent case can be made, indeed, that the increase in autonomous consumption in the post-war era reflected increased spending *induced by rising wealth*. About two-thirds of the shift in autonomous consumption from 1945 to 1947 can be explained by the $267 billion growth in national wealth during that period, if one accepts the Ando and Modigliani view that the marginal propensity to consume out of wealth is about .06.[53]

In short, rather than "pent-up demand" preventing a depression, the evidence is more consistent with a distinctly non-Keynesian interpretation: A downward adjustment in labor supply and real wages, accompanied by a more responsible (non-deficit) fiscal policy, served to stimulate investment and consumption spending. Relative price adjustments brought about what Keynesians perceived to be an increase in aggregate demand, rather than the other way around.

Conclusions

Modern standard statistical sources suggest there was a very severe economic downturn in 1946. The evidence does not support that conclusion, and it is clear that statistical revisions have served to distort the historical experience. Keynesian economists *ex ante* predicted a major downturn after the war, but when it did not come they *ex post* abruptly changed their tune and argued that a surge in private spending, especially consumption and investment spending, prevented a downturn.

The evidence shows that aggregate demand rose too little and too late to explain the low unemployment that prevailed in the first two years after V-J day, the period in which demobilization was completed. What did happen was that labor markets, partially constrained by non-price factors in the wartime period, were allowed to function in a manner that prevented a serious decline. Labor supply abruptly fell, but in addition real wages, adjusted for productivity change, also fell, preventing a massive rise in unemployment.

To the extent aggregate demand was stimulated at all, it was because of the relative price changes outlined above. Lower adjusted real wages meant higher profits and rates of return on investment spending. A dramatic shift in governmental demand

for loanable funds, far from contracting the economy as Keynesian economics suggests, kept interest rates at historic lows. Rising wealth associated with the high returns on capital led to increased consumption that ultimately led to a durable goods explosion—but one that took place long after reconversion had occurred without any major unemployment.

Appendix
Estimating the GNP Price Deflator and Real GNP

A model was constructed using real and monetary variables that provided a close statistical fit to the real GNP price deflator for the largely non-price control years 1916 to 1941; the model was estimated by ordinary least squares regression analysis using annual data:

(1) DEFLATOR = 26.895 + 0.326 M2 + 2.717 CPAPER
(1.190) (1.573) (3.776)
- 0.000 TONMIL - 0.000 EMPLOY (0.093) (0.012)
R^2 = .822, D-W = 1.715, F = 18.521,

where DEFLATOR refers to the GNP price deflator, M2 to that definition of money, CPAPER to the interest rate on commercial paper, TONMIL to the ton-miles of freight hauled by class A railroads, and EMPLOY to the number of employed persons; an autoregressive term is omitted, and numbers in parentheses are *t*-values.[54] The 1942–47 deflator was estimated from (1).

Econometrically Evaluating the "Pent-Up Demand" Argument

A simple bivariate Keynesian consumption function was statistically fitted, where the dependent variable was CONSUMPTION and the independent variable DISINC, for disposable income. Annual data were obtained from *Historical Statistics* (1975 Edition) for the years 1929 to 1941, and from the same source for 1948 to 1970. In addition, quarterly data for the years 1948 through 1959 were obtained from *The National Income & Product Accounts of the United States, 1929–1976*. The obtained statistical results follow:

1948–70 : CONSUMPTION = 7.570 + 0.891 DISINC, R^2 = .9996,

(4.932) (235.706) D-W = 1.983;

1929–41 : CONSUMPTION = 3.874 + 0.898 DISINC, R^2 = .9865,.
(1.882) (29.602) D-W = 1.124;

1948–59 : CONSUMPTION = 9.819 + 0.880 DISINC,R^2 = 9963, Quarterly (4.809) (112.864) D-W = 1.954.

Actual vs. predicted values for 1945–47 using annual data (all dollar numbers in billions) were:

Year	*Actual Value*	*Predicted Values: 48–70 DATA*	*29–41 DATA*
1945	$119.6	$140.5	$137.9
1946	143.9	149.1	146.6
1947	161.9	158.0	155.5

Using quarterly data for 1948–59, the predicted values for 1946–47 (all dollar numbers in billions) were:

Quarter		*Actual Consumption*	*Predicted Consumption*	
1946	I		$134.5	$144.5
	II	139.6	147.3	
	III	148.4	152.2	
	IV	152.7	155.2	
1947	I		154.0	155.8
	II	159.0	154.0	
	III	163.5	160.3	
	IV	167.6	162.4	

Postwar consumption did not exceed “normal” levels in relation to disposable income until well into 1947—two years after peak mobilization.

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[1] See, for example, the 1990 *Economic Report of the President* (Washington, D.C.: Government Printing Office, 1990), pp. 296, 301.

[2] In 1982 dollars, the decline is from $9,976 in 1944 to $7,401 in 1947. Population data used in this calculation are from U. S. Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1970* (Washington, D.C.: Government Printing Office, 1975).

[3] See *Historical Statistics of the United States, Colonial Times to 1957* (Washington, D.C.: Government Printing Office, 1960), p. 139.

[4] Ibid., p. 224.

[5] U.S. Department of Commerce, Bureau of Economic Analysis, *The National Income and Product Accounts of the United States, 1929–1976: Statistical Tables* (Washington, D.C.: Government Printing Office, 1981), p. 6.

[6] This is not to deny, however, that there was a fair amount of economic discontent in the period. Because of continuing price controls into 1946, there were shortages of many consumer goods; labor strife ran high, with days missed because of work stoppages reaching a new peak.

[7] 1990 *Economic Report to the President*, p. 298.

[8] 1978 *Economic Report*, p. 260.

[9] *Historical Statistics*, p. 224.

[10] *Historical Statistics*, p. 139.

[11] All statistics were gathered from the 1975 version of *Historical Statistics of the United States, Colonial Times to 1957*.

[12] For a discussion of the history of the World War II controls, plus some of the difficulties that controls brought about, see U. S. Department of Labor, *The General Maximum Price Regulation*, Bulletin No. 879 (Washington, D.C.: Government Printing Office, 1946).

[13] Milton Friedman and Anna J. Schwartz, *Monetary Trends in the United States and the United Kingdom* (Chicago: University of Chicago Press for the National Bureau of Economic Research, 1982).

[14] Geofrey Mills and Hugh Rockoff, “Compliance with Price Controls in the United States and the United Kingdom during World War II,” *Journal of Economic History* 47 (March 1987).

If the weights of the consumption and the government expenditures components of the GNP deflator in this hypothetical example were 60% and 40%, respectively, in 1947, and 80% and 20% in 1948, then the deflator would have risen by 29.4 percent (from 170 to 220) between 1947 and 1948 using 1946 as the base year. If one uses 1949 as the base year, however, we would have calculated an increase of 41.1 percent (from 56 to 79) for the same period.

[15] A numerical example, suggested by an anonymous referee, might help the reader see the point.

Year	*1946 as base year*		*1949 as base year*	
	Consumption Deflator	*Government Deflator*	*Consumption Deflator*	*Government Deflator*
1946	100	100	40	25
1947	105	200	60	50
1948	200	300	80	75
1949	250	400	100	100

[16] For a study that carries the argument here much further than we have chosen to take it, see Robert Batemarco, "GNP, PPR, and the Standard of Living," *Review of Austrian Economics* 1 (1987): 181–86. See also Murray Rothbard, *America's Great Depression* (Kansas City: Sheed and Ward, 1963).

[17] Robert Higgs, "Wartime Prosperity? A Reassessment of the U. S. Economy in the 1940s," paper presented to the Cliometric Society meetings, Washington, D.C., December 1990.

[18] See, for example, Simon Kuznets, *National Product in Wartime* (New York: National Bureau of Economic Research, 1945); see also William Nordhaus and James Tobin, "Is Growth Obsolete?" in *Economic Growth*, NBER General Series 96 (New York: National Bureau of Economic Research, 1972).

[19] Michael Sapir, "Review of Economic. Forecasts for the Transition Period," National Bureau of Economic Research, *Studies in Income and Wealth* 9 (March 1949): 275–351. One forecaster who correctly foresaw the low postwar unemployment was W. S. Woytinsky. See his "What Was Wrong in Forecasts of Postwar Depression?" *Journal of Political Economy* 55 (April 1947): 142–51. See especially his comment on page 143; see also Lawrence Klein's comment in Sapir, op. cit., pp. 352–57.

[20] Robert A. Gordon, *Business Fluctuations*, 2nd ed. (New York: Harper and Row, 1961), p. 464. Everett Hagen's forecast, for example, predicted an unemployment rate of 14.8 percent for

the first quarter of 1946. See Sapir, op. cit., p. 332.

[21] Alvin Hansen, "Economic Progress and Declining Population Growth," *American Economic Review* 29 (March 1939): 1–15.

[22] In a publication for the National Resources Planning Board, *After the War, Full Employment*, quoted in Hugh S. Norton, *The Employment Act and the Council of Economic Advisers, 1946–1976* (Columbia, S.C.: University of South Carolina Press, 1977).

[23] *New York Times*, September 7, 1945, p. 16, col.3.

[24] Ibid.

[25] *New York Times*, August 28, 1945, p. 38, col. 4.

[26] *New York Times*, September 7, 1945, p. 16, col. 1. The original proposed full employment legislation, however, would have mandated counter-cyclical fiscal policy measures if necessary to obtain full employment. We are indebted to our colleague and Truman scholar Alonzo Hamby for this insight.

[27] *New York Times*, August 28, 1945, p. 1, col. 2. Rep. Harold Knutson repeated his call for a 20 percent individual income tax reduction plus an end to the corporate excess profits tax in late September, to no avail.

[28] *New York Times*, September 2, 1945, p. 10, col. 1.

[29] *New York Times*, September 2, 1945, p. 1, col. 2.

[30] *Business Week*, September 1, 1945, p. 9.

[31] *Business Week*, September 15, 1945, p. 9.

[32] *Business Week*, September 29, 1945, p. 9.

[33] *New York Times*, September 10, 1945, p. 32, col. 3.

[34] *Business Week*, December 27, 1945, p. 10.

[35] Ibid.

[36] Council of Economic Advisers, *First Annual Report to the President*, 1946, p. 18.

[37] Gordon, *Business Fluctuations*, pp. 465, 467.

[38] *The Postwar American Economy Performance and Problems* (New York: W. W. Norton, 1967), p. 5.

[39] "The Performance of the American Economy Since 1919," in Harold F. Williamson, ed., *The Growth of the American Economy* (Englewood Cliffs, N.J.: Prentice-Hall, 1954), p. 713.

[40] Harold U. Faulkner, *American Economic History*, 7th ed. (New York: Harper, 1954), p. 713.

[41] Jonathan R. T. Hughes, *American Economic History*, 3rd ed. (Glenview, Ill.: Scott Foresman, 1990), p. 522.

[42] Robert C. Puth, however, shows some skepticism with the data. Using the modern data developed in the mid-1980s, Puth says the 1945 GNP figures "may have substantially

overstated the level of economic welfare." See his *American Economic History*, 2nd ed. (Chicago: The Dryden Press, 1988), p. 537. We would also concede that had consumer goods been more readily available in 1946, consumption spending would have been greater, so the demand-side story could have been more factually accurate. The fact remains, however, that high-level consumption spending did not occur, even if the public was willing for it to do so.

[43] As an anonymous referee perceptively pointed out, the adoption of the pent-up demand line of defense meant a theoretical retreat for Keynesians. Previously, the view was that increases in aggregate demand could lead to almost infinite increases in total output (implying a positively sloped aggregate supply curve at all price levels). Implicitly, Keynesians were now accepting the view that consumption spending during World War II had been "crowded out" by increased government spending, and that reduced government spending after 1945 led to a reversal of this process. Of course, proponents of the Keynesian perspective never pointed out this theoretical weakness.

[44] See Milton Friedman and Anna J. Schwartz, *A Monetary History of the United States, 1867–1969* (Princeton: Princeton University Press for the National Bureau of Economic Research, 1963), pp. 717–18, 741–42.

[45] See U. S. Department of Commerce, Bureau of Economic Analysis, *The National Income & Product Accounts of the United States*, 1929–1976, p. 76.

[46] For more on the role of wages in unemployment from the perspective of economic theory, the history of economic thought, and empirical evidence relating to the American experience, see Lowell Gallaway and Richard Vedder, "Wages, Prices and Employment: Von Mises and the Progressives," *Review of Austrian Economics* 1 (1987): 33–80.

[47] The *Historical Statistics of the United States, Colonial Times to 1975* was used in the calculations. With that source, the price distortions with respect to the GNP price deflator were modest compared with later revisions.

[48] Gallaway and Vedder, "Wages, Prices and Employment."

[49] Total labor union membership in U.S. unions rose but 77,000 in 1946, even as non-agricultural employment grew by nearly 2.7 million workers. See the *Historical Statistics of the United States, Colonial Times to 1957*, pp. 126 and 178.

[50] The exact profit figure depends on whether the data are

seasonally adjusted, take into account inventory evaluation adjustments, taxes, etc. See the *1949 Statistical Supplement to the Survey of Current Business* (Washington, D.C.: Government Printing Office, 1948), p. 6.

[51] *Historical Statistics of the United States, Colonial Times to 1975*, p. 1003.

[52] Ibid., p. 255.

[53] Albert Ando and Franco Modligliani, "The 'Life Cycle' Hypothesis of Savings: Aggregate Implications and Tests," *American Economic Review* 53 (March 1963): 55–84.

[54] All data were obtained from *Historical Statistics of the United States, Colonial Times to 1975*.

Ludwig von Mises and the Austrian School of Economics

Jeffrey M. Herbener

> Everyone carries a part of society on his shoulders: no one is relieved of his share of responsibility by others. And no one can find a safe way for himself if society is sweeping towards destruction. Therefore everyone, in his own interests, must thrust himself vigorously into the intellectual battle. No one can stand aside with unconcern: the interests of everyone hang on the result. Whether he chooses or not, every man is drawn into the great historical struggle, the decisive battle into which our epoch has plunged us (Mises 1988, p. 169).

This is the message of Ludwig von Mises. No one has ever fought the battle more courageously than Mises, nor had a more decisive long-run effect. Murray Rothbard is correct when he says ". . . if the world is ever to get out of its miasma of statism, or, indeed, if the economics profession is ever to return to a sound and correct development of economic analysis, both will have to abandon their contemporary bog and move to that high ground that Mises developed for us" (Rothbard 1983, p. 5).

Now, as the battle appears to be turning in favor of freedom, is an appropriate time to reconsider the role of economic theory in these world-wide changes. Specifically, it is time to consider the work of Mises and the Austrian school in the development and dissemination of the economic principles of social progress. Two steps are necessary to complete this task. The first is to demonstrate the pre-eminence of the Austrian school in developing the principles of free enterprise. The second is to demonstrate that Mises is the champion of this tradition in the twentieth century.

Method and the Austrian Tradition

Carl Menger founded the Austrian school during the marginalist revolution of the late nineteenth century in his attempt to correct

the errors of the classical economists. As Menger said:

> Adam Smith and this school have neglected to reduce the complicated phenomena of human economy in general, and in particular of its social form, "national economy" to the efforts of individual economies, as would be in accordance with the real state of affairs. They have neglected to teach us to understand them theoretically as the result of individual efforts. Their endeavors have been aimed, rather, and to be sure, subconsciously for the most part, at making us understand them theoretically from the point of view of the "national economy" fiction. On the other hand, the historical school of German economists follows this erroneous conception consciously (Menger 1985, pp. 195–96).

It is the adherence to these methodological precepts of individualism and essentialism that distinguish the Austrian school from all others. Although Mises significantly refined and improved his position, Menger laid the groundwork:

> This is the ground on which I stand. In what follows I have endeavored to reduce the complex phenomena of human economic activity to the simplest elements that can still be subjected to accurate observation, to apply to these elements the measure corresponding to their nature, and constantly adhering to this measure, to investigate the manner in which the more complex economic phenomena evolve from their elements according to definite principles (Menger 1976, p. 47).

> It is now the task of the reader to judge to what results the method of investigation I have adopted has led, and whether I have been able to demonstrate successfully that the phenomena of economic life, like those of nature, are orderly strictly in accordance with definite laws (Menger 1976, p. 48).

Via this method, Menger solved the paradox of value, derived the subjective theory of value, developed a unified theory of price and reconstructed the origin of social institutions

such as money, markets, property, and law. More than this, he began the process, culminating in the work of Mises, that has resulted in universally correct economic laws of social systems. As Menger stated:

> The aim of this orientation, which in the future we will call the *exact* one, an aim which research pursues in the same way in all realms of the world of phenomena, is the determination of strict laws of phenomena, of regularities in the succession of phenomena which do not present themselves to us as absolute, but which in respect to the approaches to cognition by which we attain to them simply bear within themselves the guarantee of absoluteness (Menger 1985, p. 59).

In contrast, most other schools of economic thought deny, because of their methodological positions, the existence of universal laws of economics. Most prevalent are empirically based schools such as the German historical school that Menger fought. Menger was quite clear on this:

> If, therefore, exact laws are at all attainable, it is clear that these cannot be obtained from the point of view of empirical realism, but only in this way, with theoretical research satisfying the presuppositions of the above rule of cognition.
>
> But the way by which theoretical research arrived at the above goal, a way essentially different from Bacon's empirical-realistic induction, is the following: it seeks to ascertain the *simplest elements* of everything real, elements which must be thought of as strictly typical just because they are the simplest.
>
> The specific goal of this orientation of theoretical research is the determination of regularities in the relationships of phenomena which are guaranteed to be absolute and as such to be complete.
>
> It examines, rather, how more complicated phenomena develop from the simplest, in part even unempirical elements of the real world in their (likewise unempirical) isolation from all other influences . . .

> Science starts out, however, with these assumptions, since it would never be able otherwise to reach the goal of exact research, the determination of strict laws. On the other hand, with the assumption of strictly typical elements, of their exact measure, and of their complete isolation from all other causative factors, it does to be sure, and indeed on the basis of the rules of cognition characterized by us above, arrive at laws of phenomena which are not only absolute, but according to our laws of thinking simply cannot be thought of in any other way but as absolute (Menger 1985, pp. 60–61).

Menger, like Mises, leaves no doubt regarding his view of the efficacy of empirically testing economic theory; providing a refutation of positivism and falsification in economics almost a century before Milton Friedman and F. A. Hayek espoused them.

> Among economists the opinion often prevails that the empirical laws, "because they are based on experience," offer better guarantees of truth than those results of exact research which are obtained, as is assumed, only deductively from a priori axioms.
>
> The error at the basis of this view is caused by the failure to recognize the nature of the exact orientation of theoretical research, of its relationship to the realistic, and by applying the points of view of the latter to the former.
>
> Nothing is so certain as that the results of the exact orientation of theoretical research appear insufficient and unempirical in the field of economy just as in all the other realms of the world of phenomena, when measured by the standard of realism. This is, however, self-evident, since the results of exact research, and indeed in all realms of the world of phenomena, are true only with certain presuppositions, with presuppositions which in reality do not always apply. Testing exact theory of economy by the full empirical method is simply a methodological absurdity, a failure to recognize the bases and presuppositions of exact research. At the same time it is a failure to recognize the particular

> aims which the exact sciences serve. To want to test the pure theory of economy by experience in its full reality is a process analogous to that of the mathematician who wants to correct the principles of geometry by measuring real objects, without reflecting that the latter are indeed not identical with the magnitudes which pure geometry presumes or that every measurement of necessity implies elements of inexactitude. Realism in theoretical research is not something higher than exact orientation, but something different.
>
> The results of realistic orientation stand in an essentially different relationship to the empirical method than those of exact research. The former are based, of course, on the observation of phenomena in their "empirical reality" and complexity, and of course the criterion of their truth is accordingly the empirical method. An empirical law lacks the guarantee of absolute validity a priori, i.e., simply according to its methodological presuppositions. It states certain regularities in the succession and coexistence of phenomena which are by no means necessarily absolute. But bearing this firmly in mind, we note that it must agree with full empirical reality, from the consideration of which it was obtained. To want to transfer this principle to the results of exact research is, however, an absurdity, a failure to recognize the important difference between exact and realistic research. To combat this is the chief task of the preceding investigations (Menger 1985, pp. 69–70).

While referring to the German historical school, Menger also refuted the modern hermeneutic economists.

> There is scarcely any need to remark that the nature and significance of the exact orientation of research is completely misunderstood in the modern literature on national economy. In German economics, at least in the historical school, the art of abstract thinking, no matter how greatly distinguished by depth and originality and no matter how broadly supported empirically—in brief, everything that in other theoretical sciences

> establishes the greatest fame of scholars is still considered, along with the products of compilatory diligence, as something secondary, almost as a stigma. The power of truth, however, will finally also be tested for those who, sensing their inability to solve the highest problems of the social sciences, would like to raise their own inadequacy as a standard for the value of scientific work in general (Menger 1985, p. 65).

Neither Hayek, who has come to accept the empirical method of Karl Popper, nor the modern hermeneuticians who advance the epistemology of subjective interpretation, have any grounding in Menger. Only Mises has accepted Menger's basic deductive procedure and forged ahead to refine it into praxeology. Mises is the true heir of the Austrian tradition and the person who has advanced the edifice of absolute economic laws in this century.

Hayek versus Menger

As Hayek progressively left his grounding in the praxeological method, he drifted further and further into error. This process has culminated in Hayek's latest work on socialism which he claims is based on Menger:

> But to me, at any rate, [*Investigations*'] main interest to the economist in our days seems to lie in the extraordinary insight into the nature of social phenomena which is revealed incidentally in the discussion of problems mentioned to exemplify different methods of approach . . . Discussions of somewhat obsolete views, as that of the organic or perhaps better physiological interpretation of social phenomena, gave him an opportunity for an elucidation of the origin and character of social institutions which might, with advantage, be read by present-day economists and sociologists (Hayek 1976, p. 23).

> Menger was the only one of these to have come after Darwin, yet all attempted to provide a rational reconstruction, conjectural history, or evolutionary account of the emergence of cultural institutions

(Hayek 1988, p. 70).

> Adequate explanations of [the market, etc.] were disseminated . . . especially by the Austrian school following Menger, into what became known as the "subjective" or "marginal utility" revolution in economic theory. [The most elementary and important] was the discovery that economic events could not be explained by preceding events acting as determining causes that enabled these revolutionary thinkers to unify economic theory into a coherent system (Hayek 1988, p. 97).

What Menger wrote about using organic analogies in the social sciences in no way justifies Hayek's claim. Menger stated clearly that the analysis of social development must be built from individual action and that reason is the guiding force in understanding social processes.

> In [the organic] category belong above all the attempts of those who think that they have solved the problem involved merely by designating as "organic" the developmental process we are discussing. The process by which social structures originate without action of the common will may well be called "organic," but it must not be believed that even the smallest part of the noteworthy problem of the social sciences that we alluded to above has been solved by this image or by any mystic allusions attached to it (Menger 1985, p. 149).

Yet Hayek makes just such allusions when he claims that the spontaneous order of the market "forms itself" or:

> The answer to [how we came to acquire the economic order of the market] is built upon the old insight, well known to economics, that our values and institutions are determined not simply by preceding causes but as part of a process of unconscious self-organisation of a structure or pattern. This is true not only of economics, but in a wide area, and is well known today in the biological sciences (Hayek 1988, p. 9).

Menger sees two mistakes made in the analysis of social processes: the mystic one mentioned above, and the view that society is a product of the "common will," i.e., created by positive legislation.

> Just as meaningless is another attempt to solve the problem discussed here. I mean the theory, which has attained widespread currency, that recognizes in social institutions something *original*, that is, not something that has developed, but an *original* product of the life of the people. This theory (which, incidentally, is also applied by a few of its adherents, for whom a unified principle means more than historical truth or the logic of things, by way of a peculiar mysticism to social institutions created by positive laws) indeed avoids the error of those who reduce all institutions to acts of positive common will. Still, it obviously offers us no solution of the problem discussed here, but evades it. The origin of a phenomena is by no means explained by the assertion that it *was present from the very beginning* or that it *developed originally* (Menger 1985, p. 149).

But Hayek is reduced to such a conclusion, "Although also acclaimed as a biologist, Aristotle lacked any perception of two crucial aspects of the formation of any complex structure, namely, evolution and the self-formation of order" (Hayek 1988, p. 45). Appeals to words like evolution or self-formation are not solutions to the problems of the origin and development of social institutions. Menger clearly looked to individual action as the foundation of the solution.

> Such a phenomenon must obviously have developed at some time from its simpler elements; a social phenomenon, at least in its most original form, must clearly have developed from individual factors. The view here referred to is merely an analogy between the development of social institutions and that of natural organisms which is completely worthless for the purpose of solving our problem. It states, to be sure, that institutions are unintended creations of the human mind, but not *how* they came about. These attempts at interpretation are comparable to

> the procedure of a natural scientist who thinks he is solving the problem of the origin of natural organisms by alluding to their "originality," "natural growth," or their "primeval nature" (Menger 1985, p. 149).

In contrast, Hayek approvingly quotes Popper, who stated, "Cultural evolution continues genetic evolution by other means" (Hayek 1988, p. 16). He continues:

> For example, by the time culture began to displace some innate modes of behavior, genetic evolution had probably also already endowed human individuals with a great variety of characteristics which were better adjusted to the many different environmental niches into which men had penetrated than those of any non-domesticated animal. . . . Among the most important of these innate characteristics which helped to displace other instincts was a great capacity for learning from one's fellows, especially by imitation (Hayek 1988, p. 18).

Menger pointed out the poverty of this line of argument:

> The previous attempts to interpret the *changes* of social phenomena as "organic processes" are no less inadmissible than the above theories which aim to solve "organically" the problem of the *origin* of unintentionally created social structures. There is hardly need to remark that the changes of social phenomena cannot be interpreted in a social-pragmatic way, insofar as they are not the intended result of the agreement of members of society or of positive legislation, but are the unintended product of social development. But it is just as obvious that not even the slightest insight into the nature and the laws of the movement of social phenomena can be gained either by the mere allusion to the "organic" or the "primeval" character of the processes under discussion, nor even by mere analogies between these and the transformations to be observed in natural organisms. The worthlessness of the above orientation of research is

> so clear that we do not care to add anything to what we have already said (Menger 1985, p. 150).

Hayek bases his analysis on exactly these allusions and analogies:

> Despite such differences, all evolution, cultural as well as biological, is a process of continuous adaptation to unforeseeable events, to contingent circumstances which could not have been forecast (Hayek 1988, p. 25).

> Economics has from its origins been concerned with how an extended order of human interaction comes into existence through a process of variation, winnowing and sifting far surpassing our vision or our capacity to design. . . . We are led—for example by the pricing system in market exchange—to do things by circumstances of which we are largely unaware and which produce results that we do not intend (Hayek 1988, p. 14).

Menger rejected these mystic forces and Hayek's characterization of individuals as mindless, passive, and ignorant:

> If this significant problem of the social sciences is truly to be solved, this cannot be done by way of superficial and, for the most part, inadmissible analogies. It can be done, in any case, only by way of direct consideration of social phenomena, not "organically," "anatomically," or "physiologically," but only in a *specifically sociological* way. The road to this, however, is *theoretical* social research, the nature and main orientations of which (the exact and the empirical-realistic) we have characterized above (Menger 1985, p. 150).

Hayek relies upon evolution to explain language, law, morals, markets, and money (Hayek 1988, p. 24); in contrast Menger claims that these institutions can be understood as built upon individual action.

> [These are] the unintended result of innumerable

> efforts of economic subjects pursuing *individual* interests. The theoretical understanding of them, the theoretical understanding of their nature and their movement can thus be attained in an exact measure only in the same way as the understanding of the above mentioned social structures. That is, it can be attained by reducing them to their elements, to the *individual* factors of their causation, and by investigating the laws by which the complicated phenomena of human economy under discussion here are built up from these elements. This, however, as scarcely needs saying, is that method which we have characterized above as the one adequate for the exact orientation of theoretical research in the realm of social phenomena in general. The methods for the exact understanding of the origin of the "organically" created social structures and those for the solution of the main problems of exact economics are by nature identical (Menger 1985, pp. 158–59).

Hayek versus Mises

Menger began to build the principles of economics from what he saw as the essence of these individual factors—the human need to satisfy material ends. From this idea of subjective value, he proceeded to derive principles of action of an isolated individual, then the more complex principles; two-person exchange (based upon mutual benefit), the social division of labor, and finally, a consistent, unified theory of price (see Menger 1976). These principles were the basis of his advocacy of laissez faire (see Rothbard 1991).

Eugen von Böhm-Bawerk, accepting Menger's methodological position, constructed the theories of advanced social production, capital and interest, and demolished the underpinnings of Marxian economics (Böhm-Bawerk 1959).

Refining and building upon this work, Mises constructed a very different picture of society's origin and development from that of Hayek (Salerno 1990). His answer to a Hayekian view of society is:

> To those pretending that man would be happier if he were to renounce the use of reason and try to let

> himself be guided by intuition and instincts only, no other answer can be given than an analysis of the achievements of human society. In describing the genesis and working of social cooperation, economics provides all the information required for an ultimate decision between reason and unreason. If man reconsiders freeing himself from the supremacy of reason, he must know what he will have to forsake (Mises 1966, p. 91).

Mises saw society as a strategy of acting individuals in their struggle against scarcity; purposefulness is the essence of the market, not spontaneity.

> Seen from the point of view of the individual, society is the great means for the attainment of all his ends (Mises 1966, p. 165).

> Society is concerted action, cooperation. Society is the outcome of conscious and purposeful behavior. This does not mean that individuals have concluded contracts by virtue of which they have founded human society. The actions which have brought about social cooperation and daily bring it about anew do not aim at anything else than cooperation and coadjuvancy with others for the attainment of definite singular ends. The total complex of the mutual relations created by such concerted actions is called society (Mises 1966, p. 143).

For Mises the division of labor (which is predicated on the inherent differences in individuals and natural resources) is the essence of society and the linchpin of all aspects of civilization.

> Society is division of labor and combination of labor (Mises 1966, p. 143).

> The fundamental social phenomenon is the division of labor and its counterpart human cooperation (Mises 1966, p. 157).

> The fundamental facts that brought about cooperation, society, and civilization and transformed the animal man into a human being are

> the facts that work performed under the division of labor is more productive than isolated work and that man's reason is capable of recognizing this truth. But for these facts men would have forever remained deadly foes of one another, irreconcilable rivals in their endeavors to secure a portion of the scarce supply of means of sustenance provided by nature (Mises 1966, p. 144).
>
> The law of association makes us comprehend the tendencies which resulted in the progressive intensification of human cooperation. We conceive what incentive induced people not to consider themselves simply as rivals in a struggle for the appropriation of the limited supply of means of subsistence made available by nature. We realize what has impelled them and permanently impels them to consort with one another for the sake of cooperation. Every step forward on the way to a more developed mode of the division of labor serves the interests of all participants. In order to comprehend why man did not remain solitary, searching like the animals for food and shelter for himself only and at most also for his consort and his helpless infants, we do not need to have recourse to a miraculous interference of the Deity or to the empty hypostasis of an innate urge toward association. Neither are we forced to assume that the isolated individuals or primitive hordes one day pledged themselves by a contract to establish social bonds. The factor that brought about primitive society and daily works toward its progressive intensification is human action that is animated by the insight into the higher productivity of labor achieved under the division of labor (Mises 1966, p. 160).

The degree to which individuals extend and intensify the division of labor depends on their understanding and acceptance of it. In contrast to Hayek, who says, "The curious task of economics is to demonstrate to men how little they really know about what they imagine they can design" (Hayek 1988, p. 76), Mises attached an important role to teaching people economic principles and persuading them to pursue their "rightly

understood interests."

> The principle of the division of labor is one of the great basic principles of cosmic becoming and evolutionary change. The biologists were right in borrowing the concept of the division of labor from social philosophy and in adapting it to their field of investigation . . . But one must never forget that the characteristic feature of human society is purposeful cooperation; society is an outcome of human action, i.e., of a conscious aiming at the attainment of ends. No such element is present, as far as we can ascertain, in the processes which have resulted in the emergence of the structure-function systems of plant and animal bodies and in the operation of the societies of ants, bees, and hornets. Human society is an intellectual and spiritual phenomenon. It is the outcome of a purposeful utilization of a universal law determining cosmic becoming, viz., the higher productivity of the division of labor. As with every instance of action, the recognition of the laws of nature is put into the service of man's efforts to improve his conditions (Mises 1966, p. 145).

> The body of economic knowledge is an essential element in the structure of human civilization; it is the foundation upon which modern industrialism and all the moral, intellectual, technological, and therapeutical achievements of the last centuries have been built. It rests with men whether they will make the proper use of the rich treasure with which this knowledge provides them or whether they will leave it unused. But if they fail to take the best advantage of it and disregard its teachings and warnings, they will not annul economics; they will stamp out society and the human race (Mises 1966, p. 885).

The prerequisite for advanced social production is calculation that allows purposeful action within the framework of the division of labor. Calculation requires money prices and thus, money and free exchange, which requires private property.

> Economic calculation is the fundamental issue in

> the comprehension of all problems commonly called economic (Mises 1966, p. 199).
>
> Monetary calculation is the guiding star of action under the social system of division of labor. It is the compass of the man embarking upon production.
>
> The system of economic calculation in monetary terms is conditioned by certain social institutions. It can operate only in an institutional setting of the division of labor and private ownership of the means of production in which goods and services of all orders are bought and sold against a generally used medium of exchange, i.e., money.
>
> Monetary calculation is the main vehicle of planning and acting in the social setting of a society of free enterprise directed and controlled by the market and its prices.
>
> Our civilization is inseparably linked with our methods of economic calculation. It would perish if we were to abandon this most precious intellectual tool of action (Mises 1966, pp. 229–30).

From this analysis Mises made his criticism of socialism, that it cannot calculate and thus, it is not an *economic* system at all. The attempt to implement socialism must lead to poverty, death, and retrogression of civilization. Mises said, "In abolishing economic calculation the general adoption of socialism would result in complete chaos and the disintegration of social cooperation under the division of labor" (Mises 1966, p. 861). While Mises saw calculation as *the* problem of socialism, Hayek views it as a knowledge problem:

> To the naive mind that can conceive of order only as the product of deliberate arrangement, it may seem absurd that in complex conditions order, and adaptation to the unknown, can be achieved more effectively by decentralizing decisions, and that a division of authority will actually extend the possibility of overall order. Yet that decentralization actually leads to more information being taken into account. This is the main reason for rejecting the

> requirements of constructivist rationalism (Hayek 1988, pp. 76–77).

Mises demonstrated that even with *perfect* information, the central planners in socialism cannot rationally calculate how to combine resources to render efficient production (Ebeling 1991). They can only grope in the dark; as Mises put it, socialism is "planned chaos," an irrational endeavor that must leach off and mimic capitalism to provide even a subsistence standard of living to its citizens.

> The paradox of "planning" is that it cannot plan, because of the absence of economic calculation. What is called a planned economy is no economy at all. It is just a system of groping about in the dark. There is no question of a rational choice of means for the best possible attainment of the ultimate ends sought. What is called conscious planning is precisely the elimination of conscious purposive action (Mises 1966, pp. 700–01).

> If no other objections could be raised to the socialist plans than that socialism will lower the standard of living of all or at least of the immense majority, it would be impossible for praxeology to pronounce a final judgment. Men would have to decide the issue between capitalism and socialism on the ground of judgments of value and of judgments of relevance. . . . However, the true state of affairs is entirely different. Man is not in a position to choose between these two systems. Human cooperation under the system of the social division of labor is possible only in the market economy. Socialism is not a realizable system of society's economic organization because it lacks any method of economic calculation (Mises 1966, p. 679).

Mises and the Austrian Tradition

These principles, representing the pinnacle of free-market economic theory, cannot be found in any other modern school of economic thought. By failing to correctly understand the process of the social creation of wealth these other schools have not played a significant, independent role in the current

advancement of freedom. Advocates of the free market within other schools have relied upon the basic Austrian arguments or have been relatively ineffective since their economic theories are more easily rebuffed.

What effective defense of the free market has been made by econometrics? By its nature all such work tells us only of what has happened and not what can happen—it cannot result in universal laws applicable to any conceivable historical episode. As such it is easily ignored by those who wish to conduct social experiments for the future. Furthermore, econometrics is coming under increasing criticism as a method capable of rendering useful knowledge at all (see Hoppe 1988).

This criticism extends with equal force to modern neoclassical theory, since it is built upon positivism (Friedman 1974). Milton Friedman tells us that all proper economic theory must be testable and subject to falsification; that economic propositions, like those in physics, are hypothetical, tentative, and forever subject to testing and potential rejection. Yet what basic principles of economics have neoclassical economists rejected for failing tests of statistical significance? The laws of supply and demand? The principle of diminishing marginal utility? The concept of opportunity cost? The idea that exchange leads to mutual benefit? Such basic principles are either non-testable, and thus, not positivist economic theories at all, or routinely rejected in econometric tests. Yet all *economic* defenses of the free market are built from basic principles. Friedman and other neoclassical economists say that economic theory must be empirical but they do economic theory deductively, although not as well as Mises.

Neoclassical economics has failed to provide any role in defense of the free market to the extent that it stands outside the Austrian tradition. It contains no free-market principles that are both unique and true. It should be kept in mind that after Mises's devastating article on the inability of socialism to calculate, socialists tried to refute him by using mathematical economics and econometrics to show that, in theory at least, the problem could be solved by a system of equations *if* the economy is perfectly competitive (Ebeling 1991). Their failure has not prevented others from employing the pre-eminent neoclassical theory as an argument *against* the free market. It is a common barb that the free market would be a superior economic system *if* it was perfectly competitive. And since it obviously is not perfectly competitive, then government control is essential.

To the contrary, Mises has shown that the argument for free markets does not depend on *any* type of competition, perfect or otherwise. In contrast, Hayek claims:

> One revealing mark of how poorly the ordering principle of the market is understood is the common notion that "cooperation is better than competition." Cooperation, like solidarity, presupposes a large measure of agreement on ends as well as on methods employed in their pursuit. It makes sense in a small group whose members share particular habits, knowledge and beliefs about possibilities. It makes hardly any sense when the problem is to adapt to unknown circumstances; yet it is this adaptation to the unknown on which the coordination of efforts in the extended order rests. Competition is a procedure of discovery, a procedure involved in all evolution, that led man unwittingly to respond to novel situations; and through further competition, not through agreement, we gradually increase our efficiency.
>
> To operate beneficially, competition requires that those involved observe rules rather than resort to physical force. Rules alone can unite an extended order. Neither all ends pursued, nor all means used, are known or need to be known to anybody, in order for them to be taken account of within a spontaneous order. Such an order forms of itself (Hayek 1988, pp. 19–20).

> Biological and cultural evolution share other features too. For example, they both rely on the same principle of selection: survival or reproductive advantage. Variation, adaptation and competition are essentially the same kind of process, however different their particular mechanisms, particularly those pertaining to propagation. Not only does all evolution rest on competition; continuing competition is necessary even to preserve existing achievements (Hayek 1988, p. 26).

Mises has shown that the social division of labor is not an arena of competition but cooperation, a complex network of voluntary interaction that is absolutely necessary for the

continuing life and prosperity of the world's population. If people fail to understand this and act against their "rightly understood interests," then prosperity and civilization will end.

> What makes friendly relations between human beings possible is the higher productivity of the division of labor. It removes the natural conflict of interests. For where there is division of labor, there is no longer question of the distribution of a supply not capable of enlargement. Thanks to the higher productivity of labor performed under the division of tasks, the supply of goods multiplies. A pre-eminent common interest, the preservation and further intensification of social cooperation, becomes paramount and obliterates all essential collisions. Catallactic competition is substituted for biological competition. It makes for harmony of the interests of all members of society. The very condition from which the irreconcilable conflicts of biological competition arise—viz., the fact that all people by and large strive after the same things—is transformed into a factor making for harmony of interests. Because many people or even all people want bread, clothes, shoes, and cars, large-scale production of these goods becomes feasible and reduces the costs of production to such an extent that they are accessible at low prices. The fact that my fellow man wants to acquire shoes as I do, does not make it harder for me to get shoes, but easier. What enhances the price of shoes is the fact that nature does not provide a more ample supply of leather and other raw material required, and that one must submit to the disutility of labor in order to transform these raw materials into shoes. The catallactic competition of those who, like me, are eager to have shoes makes shoes cheaper, not more expensive.
>
> This is the meaning of the theorem of the harmony of the rightly understood interests of all members of the market society (Mises 1966, pp. 673–74).

Most "free-market" economists have failed to absorb Mises's analysis of capitalism and socialism and thus hold to some form

of a mixed economy. As Mises has shown this view is untenable.

> The market economy must be strictly differentiated from the second thinkable—although not realizable—system of social cooperation under the division of labor: the system of social or governmental ownership of the means of production. This second system is commonly called socialism, communism, planned economy, or state capitalism. The market economy or capitalism, as it is usually called, and the socialist economy preclude one another. There is no mixture of the two systems possible or thinkable; there is no such thing as a mixed economy, a system that would be in part capitalistic and in part socialist. Production is directed by the market or by the decrees of a production tsar or a committee of production tsars.
>
> If within a society based on private ownership by the means of production some of these means are publicly owned and operated—that is, owned and operated by the government or one of its agencies—this does not make for a mixed system which would combine socialism and capitalism. . . . These publicly owned and operated enterprises are subject to the sovereignty of the market. They must fit themselves, as buyers of raw materials, equipment, and labor, and as sellers of goods and services, into the scheme of the market economy. They are subject to the laws of the market and thereby depend on the consumers who may or may not patronize them. They must strive for profits or, at least, to avoid losses. The government may cover losses of its plants or shops by drawing on public funds. But this neither eliminates nor mitigates the supremacy of the market; it merely shifts it to another sector.
>
> Nothing that is in any way connected with the operation of a market is in the praxeological or economic sense to be called socialism. The notion of socialism as conceived and defined by all socialists implies the absence of a market for factors of production and of prices of such factors. The "socialization" of individual plants, shops, and

> farms—that is, their transfer from private into public ownership—is a method of bringing about socialism by successive measures. It is a step on the way toward socialism, but not in itself socialism (Mises 1966, pp. 258–59).

This step-by-step process, in reverse, is the council given to the countries of Eastern and Central Europe by today's self-proclaimed, free-market economists. After moving toward capitalism, they are to stop at some optimum amount of government intervention. But Mises showed long ago that interventionism is an unstable middle ground between capitalism and socialism that must continue in motion toward one or the other.

> The system of interventionism or of the hampered market economy differs from the German pattern of socialism by the very fact that it is still a market economy. The authority interferes with the operation of the market economy, but does not want to eliminate the market altogether. It wants production and consumption to develop along lines different from those prescribed by an unhampered market, and it wants to achieve its aim by injecting into the working of the market orders, commands, and prohibitions for whose enforcement the police power and its apparatus of violent compulsion and coercion stand ready. But these are isolated acts of an integrated system which determines all prices, wages and interest rates and thus places full control of production and consumption into the hands of the authorities.
>
> The system of the hampered market economy or interventionism aims at preserving the dualism of the distinct spheres of government activities on the one hand and economic freedom under the market system on the other hand. What characterizes it as such is the fact that the government does not limit its activities to the preservation of private ownership of the means of production and its protection against violent or fraudulent encroachments. The government interferes with the operation of business by means of orders and prohibitions (Mises 1966, p. 718).

> The interventionist doctrinaires repeat again and again that they do not plan the abolition of private ownership of the means of production, of entrepreneurial activities, and or market exchange. . . . It is necessary, they say, that the state interfere with the market phenomena whenever and wherever the "free play of the economic forces" results in conditions that appear as "socially" undesirable. In making this assertion they take it for granted that it is the government that is called upon to determine in every single case whether or not a definite economic fact is to be considered as reprehensible for the "social" point of view and, consequently whether or not the state of the market requires a special act of government interference.
>
> All these champions of interventionism fail to realize that their program thus implies the establishment of full government supremacy in all economic matters and ultimately brings about a state of affairs that does not differ from what is called the German or the Hindenburg pattern of socialism. If it is in the jurisdiction of the government to decide whether or not definite conditions of the economy justify its intervention, no sphere of operation is left to the market. Then it is no longer the consumers who ultimately determine what should be produced, in what quantity, of what quality, by whom, where, and how—but it is the government. For as soon as the outcome brought about by the operation of the unhampered market differs from what the authorities consider "socially" desirable, the government interferes. That means the market is free as long as it does precisely what the government wants it to do. . . . Thus the doctrine and the practice of interventionism ultimately tend to abandon what originally distinguished them from outright socialism and to adopt entirely the principles of totalitarian all-round planning (Mises 1966, pp. 723–24).

In Mises's view what we are witnessing today is not the collapse of socialism, since socialism cannot be realized in full,

but the collapse of a form of interventionism. He predicted this in 1949: “The interventionist interlude must come to an end because interventionism cannot lead to a permanent system of social organization” (Mises 1966, p. 858). This must happen because interventionism restricts the goods available to consumers; and fails to bring about the end aimed at, leading to a situation worse than the pre-intervention once it has exhausted the “surplus” it seeks to confiscate (Mises 1966, p. 858). The outcome of changes in Europe depend upon understanding and accepting these Misesian ideas.

> Optimists hope that at least those nations which have in the past developed the capitalist market economy and its civilization will cling to this system in the future too. There are certainly as many signs to confirm as to disprove such an expectation. It is vain to speculate about the outcome of the great ideological conflict between the principles of private ownership and public ownership, of individualism and totalitarianism, of freedom and authoritarian regimentation. All that we can know beforehand about the result of this struggle can be condensed in the following three statements:
>
> (1) We have no knowledge whatever about the existence and operation of agencies which would bestow final victory in this clash on those ideologies whose application will secure the preservation and further intensification of societal bonds and the improvement of mankind’s material well-being. Nothing suggests the belief that progress toward more satisfactory conditions is inevitable or a relapse into very unsatisfactory conditions impossible.
>
> (2) Men must choose between the market economy and socialism. They cannot evade deciding between these alternatives by adopting a “middle-of-the-road” position, whatever name they may give to it.
>
> (3) In abolishing economic calculation the general adoption of socialism would result in complete chaos and the disintegration of social cooperation under the division of labor (Mises 1966, p. 861).

We are all participating in this great ideological struggle and thus economic education holds paramount importance.

> Economics must not be relegated to classrooms and statistical offices and must not be left to exoteric circles. It is the philosophy of human life and action and concerns everybody and everything. It is the pith of civilization and of man's human existence.
>
> There is no means by which anyone can evade his personal responsibility. Whoever neglects to examine to the best of his abilities all the problems involved voluntary surrenders his birthright to a self-appointed elite of supermen. In such vital matters blind reliance upon "experts" and uncritical acceptance of popular catchwords and prejudices is tantamount to the abandonment of self-determination and to yielding to other people's domination. As conditions are today, nothing can be more important to every intelligent man than economics. His own fate and that of his progeny is at stake (Mises 1966, p. 878).

Conclusions

The Austrian tradition is identified by and built upon praxeology —the application of deductive reasoning to the irrefutable fact of human action. This method is the red thread that runs from Menger to Böhm-Bawerk to Mises to Murray Rothbard and the modern practitioners of Austrian economics. Working within this tradition, economists have produced a great edifice of irrefutable, universally applicable economic theory. They have shown how the free market advances mankind in its struggle against scarcity and why socialism cannot do so. They have taught us that we must choose one of these two social arrangements, since no system exists between them. We must make our selection and advance, by education and persuasion, either capitalism or socialism. Let us choose wisely.

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The End of Socialism and the Calculation Debate Revisited

Murray N. Rothbard

At the root of the dazzling revolutionary implosion and collapse of socialism and central planning in the "socialist bloc" is what everyone concedes to be a disastrous economic failure. The peoples and the intellectuals of Eastern Europe and the Soviet Union are crying out not only for free speech, democratic assembly, and *glasnost*, but also for private property and free markets. And yet, if I may be pardoned a moment of nostalgia, four-and a-half-decades ago, when I entered graduate school, the economics Establishment of that era was closing the book on what had been for two decades the famed "socialist calculation debate." And they had all decided, left, right, and center, that there was not a thing economically wrong with socialism: that socialism's only problems, such as they might be, were *political*. Economically, socialism could work just as well as capitalism.

Mises and the Challenge of Calculation

Before Ludwig von Mises raised the calculation problem in his celebrated article in 1920,[1] everyone, socialists and non-socialists alike, had long realized that socialism suffered from an *incentive problem*. If, for example, everyone under socialism were to receive an equal income, or, in another variant, everyone was supposed to produce "according to his ability" but receive "according to his needs," then, to sum it up in the famous question: Who, under socialism, will take out the garbage? That is, what will be the incentive to do the grubby jobs, and, furthermore, to do them well? Or, to put it another way, what would be the incentive to work hard and be productive *at any job*?

The traditional socialist answer held that the socialist society would transform human nature, would purge it of selfishness, and remold it to create a New Socialist Man. That new man would be devoid of any selfish, or indeed any self-determined, goals; his only wish would be to work as hard and as eagerly as

possible to achieve the goals and obey the orders of the socialist State. Throughout the history of socialism, socialist *ultras*, such as the early Lenin and Bukharin under "War Communism," and later Mao Tse-tung and Che Guevara, have sought to replace material by so-called "moral" incentives. This notion was properly and wittily ridiculed by Alexander Gray as "the idea that the world may find its driving force in a Birthday Honours List (giving to the King, if necessary, 165 birthdays a year)."[2] At any rate, the socialists soon found that voluntary methods could hardly yield them the New Socialist Man. But even the most determined and bloodthirsty methods could not avail to create this robotic New Socialist Man. And it is a testament to the spirit of freedom that cannot be extinguished in the human breast that the socialists continued to fail dismally, despite decades of systemic terror.

But the uniqueness and the crucial importance of Mises's challenge to socialism is that it was totally unrelated to the well-known incentive problem. Mises in effect said: All right, suppose that the socialists have been able to create a mighty army of citizens all eager to do the bidding of their masters, the socialist planners. What exactly would those planners tell this army to do? How would they know what products to order their eager slaves to produce, at what stage of production, how much of the product at each stage, what techniques or raw materials to use in that production and how much of each, and where specifically to locate all this production? How would they know their costs, or what process of production is or is not efficient?

Mises demonstrated that, in any economy more complex than the Crusoe or primitive family level, the socialist planning board would simply not know what to do, or how to answer any of these vital questions. Developing the momentous concept of *calculation*, Mises pointed out that the planning board could not answer these questions because socialism would lack the indispensable tool that private entrepreneurs use to appraise and calculate: the existence of a market in the means of production, a market that brings about money prices based on genuine profit-seeking exchanges by private owners of these means of production. Since the very essence of socialism is collective ownership of the means of production, the planning board would not be able to plan, or to make any sort of rational economic decisions. Its decisions would necessarily be completely arbitrary and chaotic, and therefore the existence of a socialist planned economy is literally "impossible" (to use a term long ridiculed by

Mises's critics).

The Lange-Lerner "Solution"

In the course of intense discussion throughout the 1920s and 1930s, the socialist economists were honest enough to take Mises's criticism seriously, and to throw in the towel on most traditional socialist programs: in particular, the original communist vision that workers, not needing such institutions as bourgeois money fetishism, would simply produce and place their products on some vast socialist heap, with everyone simply taking from that heap "according to his needs." The socialist economists also abandoned the Marxian variant that everyone should be paid according to the labor time embodied into his product. In contrast, what came to be known as the Lange-Lerner solution (or, less commonly but more accurately, the Lange-Lerner-Taylor solution), acclaimed by virtually all economists, asserted that the socialist planning board could easily resolve the calculation problem by ordering its various managers to fix accounting prices. Then, according to the contribution of Professor Fred M. Taylor, the central planning board could find the proper prices in much the same way as the capitalist market: trial and error. Thus, given a stock of consumer goods, if the accounting prices are set too low, there will be a shortage, and the planners will raise prices until the shortage disappears and the market is cleared. If, on the other hand, prices are set too high, there will be a surplus on the shelves, and the planners will lower the price, until the markets are cleared. The solution is simplicity itself![3]

In the course of his two-part article and subsequent book, Lange concocted what could only be called the Mythology of the Socialist Calculation Debate, a mythology which, aided and abetted by Joseph Schumpeter, was accepted by virtually all economists of whatever ideological stripe. It was this mythology which I found handed down as the Orthodox Line when I entered Columbia University's graduate school at the end of World War II —a line promulgated in lectures by no less an expert on the Soviet economy than Professor Abram Bergson, then at Columbia. In 1948, indeed, Professor Bergson was selected to hand down the Received Opinion on the subject by a committee of the American Economic Association, and Bergson interred the socialist calculation question with the Orthodox Line as its burial rite.[4]

The Lange-Bergson Orthodox Line went about as follows: Mises, in 1920, had done an inestimable service to socialism by raising the problem of economic calculation, a problem of which socialists had not generally been aware. Then Pareto and his Italian disciple Enrico Barone had shown that Mises's charge, that socialist calculation was impossible, was incorrect, since the requisite number of supply, demand, and price equations existed under socialism as under a capitalist system. At that point, F. A. Hayek and Lionel Robbins, abandoning Mises's extreme position, fell back on a second line of defense: that, while the calculation problem could be solved *theoretically*, in practice it would be too difficult. Thereby Hayek and Robbins fell back on a practical problem, or one of degree of efficiency rather than of a drastic difference in kind. But now, happily, the day has been saved for socialism, since Taylor-Lange-Lerner have shown that, by jettisoning utopian ideas of a money-less or price-less socialism, or of pricing according to a labor theory of value, the socialist Planning Board can solve these pesky equations simply by the good old capitalist method of trial and error.[5]

Bergson, attempting to be magisterial in his view of the debate, summed up Mises as contending that "without private ownership of, or (what comes to the same thing for Mises) a free market for the means of production, the rational evaluation of these goods for the purposes of calculating costs is ruled out . . ." Bergson correctly adds that to put Mises's point

> somewhat more sharply than is customary, let us imagine a Board of Supermen, with unlimited logical faculties, with a complete scale of values for the different consumers goods', and present and future consumption, and detailed knowledge of production techniques. Even such a Board would be unable to evaluate rationally the means of production. In the absence of a free market for these goods, decisions on resource allocation in Mises' view necessarily would be on a haphazard basis.

Bergson sharply comments that this "argument is easily disposed of." Lange and Schumpeter both point out that, as Pareto and Barone had shown,

> once tastes and techniques are given, the values of the means of production can be determined unambiguously by imputation without the

> intervention of a market process. The Board of Supermen could decide readily how to allocate resources so as to assure the optimum welfare. It would simply have to solve the equations of Pareto and Barone.[6]

So much for Mises. As for the Hayek-Robbins problem of practicality, Bergson adds, that can be settled by the Lange-Taylor trial-and-error method; any remaining problems are only a matter of degree of efficiency, and political choices. The Mises problem has been satisfactorily solved.

Some Fallacies of the Lange-Lerner Solution

The breathtaking naivete of the Orthodox Line should have been evident even in the 1940s. As Hayek later chided Schumpeter on the assumption of "imputation" outside the market, this formulation "presumably means . . . that the valuation of the factors of production is implied in, or follows necessarily from, the valuation of consumers' goods. But . . . implication is a logical relationship which can be meaningfully asserted only of propositions simultaneously present to one and the same mind."[7]

Economists were convinced of the Lange solution because they had already come under the sway of the Walrasian general equilibrium model; Schumpeter, for example, was an ardent Walrasian. In this model, the economy is always in static general equilibrium, a changeless world in which all "data"—tastes or value scales, alternative technologies, and lists of resources—are known to everyone, and where costs are known and always equal to price. The Walrasian world is also one of "perfect" competition, where prices are given to all managers. Indeed, both Taylor and Lange make the point that the Socialist Planning Board will be better able to calculate than capitalist markets, since the socialist planners can ensure "perfect competition," whereas the real world of capitalism is shot through with various sorts of "monopolies"! The socialist planners can act like the absurdly fictional Walrasian "auctioneer," bringing about equilibrium rapidly by trial and error.

Set aside the obvious absurdity of trusting a coercive governmental monopoly to act somehow as if it were in "perfect competition" with parts of itself. Another grievous flaw in the Lange model is thinking that general equilibrium, a world of

certainty where there is no room for the driving force of entrepreneurship, can somehow be used to depict the real world. The actual world is one not of changeless "givens" but of incessant change and systemic uncertainty. Because of this uncertainty, the capitalist entrepreneur, who stakes assets and resources in attempting to achieve profits and avoid losses, becomes the crucial actor in the economic system, an actor who can in no way be portrayed by a world of general equilibrium. Furthermore, it is ludicrous, as Hayek pointed out, to think of general equilibrium as the only legitimate "theory," with all other areas or problems dismissed as mere matters of practicality and degree. No economic theory worth its salt can be worthwhile if it omits the role of the entrepreneur in an uncertain world. The Pareto-Barone-Lange, etc. "equations" is not simply excellent theory that faces problems in practice; for in order to be "good," a theory must be useful in explaining real life.[8]

Another grave flaw in the Lange-Taylor trial-and-error approach is that it concentrates on consumer good pricing. It is true that retailers, given the stock of a certain type of good, can clear the market by adjusting the prices of that good upward or downward. But, as Mises pointed out in his original 1920 article, consumers goods are not the real problem. Consumers, these "market socialists" are postulating, are free to express their values by using money they had earned on a range of consumers' goods. Even the labor market—at least in principle[9]—can be treated as a market with self-owning suppliers who are free to accept or reject bids for their labor and to move to different occupations. The real problem, as Mises has insisted from the beginning, is in all the intermediate markets for land and capital goods. Producers have to use land and capital resources to decide what the stocks of the various consumer goods should be. Here there are a huge number of markets where the State monopoly can only be both buyer and seller for each transaction, and these intra-monopoly, intra-state transactions permeate the most vital markets of an advanced economy—the complex lattice-work of the capital markets. And here is precisely where calculational chaos necessarily reigns, and there is no way for rationality to intrude on the immense number of decisions on the allocation of prices and factors of production in the structure of capital goods.

Mises's Rebuttal: The Entrepreneur

Moreover, Mises's brilliant and devastating rebuttal to his Lange-

Lerner "market socialism" critics has virtually never been considered—neither by the economics establishment nor by the post-World War II Hayekians. In both cases, the writers were eager to dispose of Mises as having safely made his pioneering contribution in 1920, but being superseded later, either by Lange-Lerner or by Hayek, as the case may be. In both cases, it was inconvenient to ponder that Mises continued to elaborate his position with a penetrating critique of his critics, or that Mises's "extreme" formulation may, after all, have been correct.[10]

Mises began his rebuttal in *Human Action* by discussing the "trial-and-error" method, and pointing out that this process only works in the capitalist market. There the entrepreneurs are strongly motivated to make greater profits and to avoid losses, and further, such a criterion does not apply to the capital goods or land market under socialism where all resources are controlled by one entity, the government.

Continuing his reply, Mises pressed on to a brilliant critique, not only of socialism, but of the entire Walrasian general equilibrium model. The major fallacy of the "market socialists," Mises pointed out, is that they look at the economic problem from the point of view of the manager of the individual firm, who seeks to make profits or avoid losses within a rigid framework of a given, external allocation of capital to each of the various branches of industry and indeed to the firm itself. In other words, the "market socialist" manager is akin, not to the real driving force of the capitalist market, the capitalist entrepreneur, but rather to the relatively economically insignificant manager of the corporate firm under capitalism. As Mises brilliantly puts it:

> the cardinal fallacy implied in [market socialist] proposals is that they look at the economic problem from the perspective of the subaltern clerk whose intellectual horizon does not extend beyond subordinate tasks. They consider the structure of industrial production and the allocation of capital to the various branches and production aggregates as rigid, and do not take into account the necessity of altering this structure in order to adjust it to changes in conditions. . . . They fail to realize that the operations of the corporate officers consist merely in the loyal execution of the tasks entrusted to them by their bosses, the shareholders. . . . The

> operations of the managers, their buying and selling, are only a small segment of the totality of market operations. The market of the capitalist society also performs those operations which allocate the capital goods to the various branches of industry. The entrepreneurs and capitalists establish corporations and other firms, enlarge or reduce their size, dissolve them or merge them with other enterprises; they buy and sell the shares and bonds of already existing and of new corporations; they grant, withdraw, and recover credits; in short they perform all those acts the totality of which is called the capital and money market. It is these financial transactions of promoters and speculators that direct production into those channels in which it satisfies the most urgent wants of the consumers in the best possible way.[11]

Mises goes on to remind the reader that the corporate manager performs only a "managerial function," a subsidiary service that "can never become a substitute for the entrepreneurial function." Who are the capitalist-entrepreneurs? They are "the speculators, promoters, investors and moneylenders, [who] in determining the structure of the stock and commodity exchanges and of the money market, circumscribe the orbit within which definite tasks can be entrusted to the manager's discretion." The crucial question, Mises continues, is not managerial activities, but: "In which branches should production be increased or restricted, in which branches should the objective of production be altered, what new branches should be inaugurated?" In short, the crucial decisions in the capitalist economy are the allocation of capital to firms and industries. "With regard to these issues," Mises adds, "it is vain to cite the honest corporation manager and his well-tried efficiency. Those who confuse entrepreneurship and management close their eyes to the economic problem . . . The capitalist system is not a managerial system; it is an entrepreneurial system." But here, Mises triumphantly concludes, no "market socialist" has ever suggested preserving or carrying over, much less understood the importance of, the specifically entrepreneurial functions of capitalism:

> Nobody has ever suggested that the socialist commonwealth could invite the promoters and

> speculators to continue their speculations and then deliver their profits to the common chest. Those suggesting a quasi-market for the socialist system have never wanted to preserve the stock and commodity exchanges, the trading in futures, and the bankers and money-lenders as quasi-institutions. [12]

Mises has been cited as stating, in *Human Action*, that it is absurd for the socialist planning board to tell their managers to "play market," to act *as if* they are owners of their firms in trying to maximize profits and avoid losses. But it is important to stress that Mises was focusing, not so much on the individual managers of socialist "firms," but on the speculators and investors who decide the crucial allocations of capital throughout the structure of industry. It is at least conceivable that one can order a manager to play market and act as if he were enjoying the profits and suffering losses; but it is clearly ludicrous to ask investors and capital speculators to act as if their fortunes were at stake. As Mises adds:

> one cannot *play* speculation and investment. The speculators and investors expose their own wealth, their own destiny. This fact makes them responsible to the consumers, the ultimate bosses of the capitalist economy. If one relieves them of this responsibility, one deprives them of their very character.[13]

One time, during Mises's seminar at New York University, I asked him whether, considering the broad spectrum of economies from a purely free market economy to pure totalitarianism, he could single out one criterion according to which he could say that an economy was essentially "socialist" or whether it was a market economy. Somewhat to my surprise, he replied readily: "Yes, the key is whether the economy has a stock market." That is, if the economy has a full-scale market in titles to land and capital goods. In short: Is the allocation of capital basically determined by government or by private owners? At the time, I did not fully understand the vital importance of Mises's answer, which I realized recently when poring over the great merits of the Misesian, as compared to the Hayekian, analysis of the socialist calculation problem.

For Mises, in short, the key to the capitalist market economy

and its successful functioning is the entrepreneurial forecasting and decisionmaking of private owners and investors. The key is emphatically *not* the more minor decisions made by corporate managers within a framework already set by entrepreneurs and the capital markets. And it is obvious that Lange, Lerner, and the other market socialists merely envisioned the relatively lesser managerial decisions. These economists, who had never grasped the function of speculation or capital markets, therefore had no idea that they would need to be or could be replicated in a socialist system.[14] And this is not surprising, since in the Walrasian general micro-equilibrium model, there is no capital structure, there is no role for capital, and capital theory has become totally submerged into "growth theory," that is, growth of a homogeneous "level," or blob, of aggregate macro-capital. The allocation of capital is considered external and given, and receives no consideration.

The Structure of Capital

Joseph Schumpeter and Frank H. Knight are interesting examples of two eminent economists who were personally anti-socialist but were seduced by their Walrasian devotion to general equilibrium and their lack of a genuine capital theory into strongly endorsing the orthodox view that there is no economic calculation problem under socialism. In particular, in capital theory, both Schumpeter and Knight were disciples of J. B. Clark, who denied any role at all for time in the process of production. For Schumpeter, production takes no time because production and consumption are somehow always "synchronized." Time is erased from the picture, even to assuming away the existence of any accumulated stocks of capital goods, and therefore of any age structure of such goods. Since production is magically synchronized, there is then no necessity for land or labor to receive advances in payment from capitalists out of accumulated savings. Schumpeter achieves this feat by sundering capital completely from its embodiment in capital goods, and limiting the concept to a money fund used to purchase such goods.[15]

Frank Knight, the doyen of the Chicago School, was also an ardent believer in the Clarkian view that time preference has no influence on interest paid by producers, and that production is synchronized so that time plays no role in the production structure. Hence, Knight believed, along with modern orthodoxy, that capital is a homogeneous, self-perpetuating blob that *has no*

lattice-like, time-oriented structure. Knight's fiercely anti-Böhm-Bawerkian, anti-Austrian views on capital and interest led him to a then-famous war of journal articles over capital theory during the 1930s, a war he won by default when Austrianism disappeared because of the Keynesian Revolution.[16]

In his negative review of Mises's *Socialism*, Frank Knight, after hailing Lange's "excellent" 1936 article, brusquely dismisses the socialist calculation debate as "largely sound and fury." To Knight, it is simply "truistical" that the "technical basis of economic life" would continue as before under socialism, and that therefore "the managers of various technical units in production—farms, factories, railways, stores, etc.—would carry on in essentially the same way." Note, there is no reference whatever to the crucial capital market, or to the allocation of capital to various branches of production. If capital is an automatically renewing homogeneous blob, all one need worry about is growth in the amount of that blob. Hence, Knight concludes that "socialism is a political problem, to be discussed in terms of social and political psychology, and economic theory has relatively little to say about it."[17] Certainly, that is true of Knight's orthodox-Chicagoite brand of economic theory!

It is instructive to compare the naivete and the brusque dismissal of the problem by Schumpeter and Knight with the penetrating Misesian critique of socialism by Professor Georg Halm:

> Because capital is no longer owned by many private persons, but by the community, which itself disposes of it directly, a rate of interest *can* no longer be determined. A pricing process is always possible only when demand and supply meet in a market. . . . In the socialist economy . . . there can be no demand and no supply when the capital from the outset is in the possession of its intending user, in this case the socialistic central authority.
>
> Now it might perhaps be suggested that, since the rate of interest cannot be determined automatically, it should be fixed by the central authority. But this likewise would be quite impossible. It is true that the central authority would know quite well how many capital goods of a given kind it possessed or could procure . . .; it would know the capacity of the existing plant in the

> various branches of production; *but it would not know how scarce capital was*. For the scarcity of means of production must always be related to the demand for them, whose fluctuations give rise to variations in the value of the good in question . . .
>
> If it should be objected that a price for consumption-goods would be established, and that in consequence the intensity of the demand and so the value of the means of production would be determinate, this would be a further serious mistake. . . . The demand for means of production, labor and capital goods, is only indirect.

Halm goes on to add that if there were only one single factor of production in making consumers' goods, the socialist "market" might be able to determine its proper price. But this can not be true in the real world where *several* factors of production take part in the production of goods in various markets.

Halm then adds that the central authority, contrary to his above concession, would not *even* be able to find out how much capital it is employing. For capital goods are heterogeneous, and therefore how "can the total plant of one factory be compared with that of another? How can a comparison be made between the values of even only two capital-goods?" In short, while under capitalism such comparisons can be made by means of money prices set on the market for every good, in the socialist economy the absence of genuine money prices arising out of a market precludes any such value comparisons. Hence, there is also no way for a socialist system to rationally estimate the costs (which are dependent on prices in factor markets) of any process of production.[18]

Mises's Rebuttal: Valuation and Monetary Appraisement

In his original 1920 article, Mises emphasized that "as soon as one gives up the conception of a freely established monetary price for goods of a higher order, rational production becomes completely impossible." Mises then states, prophetically:

> One may anticipate the nature of the future socialist society. There will be hundreds and thousands of factories in operation. Very few of these will be

> producing wares ready for use; in the majority of cases what will be manufactured will be unfinished goods and production goods. All these concerns will be interrelated. Every good will go through a whole series of stages before it is ready for use. In the ceaseless toil and moil of this process, however, the administration will be without any means of testing their bearings. It will never be able to determine whether a given good has not been kept for a superfluous length of time in the necessary processes of production, or whether work and material have not been wasted in its completion. How will it be able to decide whether this or that method of production is the more profitable? At best it will only be able to compare the quality and quantity of the consumable end-product produced, but will in the rarest cases be in a position to compare the expenses entailed in production.

Mises points out that while the government may be able to know what ends it is trying to achieve, and what goods are most urgently needed, it will have no way of knowing the other crucial element required for rational economic calculation: valuation of the various means of production, which the capitalist market can achieve by the determination of money prices for all products and their factors.[19]

Mises concludes that, in the socialist economy "in place of the economy of the 'anarchic' method of production, recourse will be had to the senseless output of an absurd apparatus. The wheels will turn, but will run to no effect."[20]

Moreover, in his later rebuttal to the champions of the Pareto-Barone equations, Mises points out that the crucial problem is not simply that the economy is not and can never be in the general equilibrium state described by these differential equations. In addition to other grave problems with the equilibrium model (e.g.: that the socialist planners do not now know their value scales in future equilibrium; that money and monetary exchange cannot fit into the model; that units of productive factors are neither perfectly divisible nor infinitesimal —and that marginal utilities of different people cannot be equated—on the market or anywhere else), the equations "do not provide any information about the human actions by means of which the hypothetical state of equilibrium" has been or can be

reached. In short, the equations offer no information whatever on how to get from the existing disequilibrium state to the general equilibrium goal.

In particular, Mises points out, "even if, for the sake of argument, we assume that a miraculous inspiration has enabled the director without economic calculation to solve all problems concerning the most advantageous arrangement of all production activities and that the price image of the final goal he must aim at is present to his mind," there remain crucial problems on the path from here to there. For the socialist planner does not start from scratch and then build a capital goods structure most perfectly designed to meet his. goals. He necessarily starts with a capital goods structure produced at many stages of the past and determined by past consumer values and past technological methods of production. There are different, degrees of such past determinants built into the existing capital structure, and anyone starting today must use, these resources as best he can to meet present and expected future goals. For these heterogeneous choices, no mathematical equations can be of the slightest use. [21]

Finally, the unique root of Mises's position, and one that distinguishes him and his "socialist impossibility" thesis from Hayek and the Hayekians, has been neglected until the present day. And this neglect has persisted despite Mises's own explicit avowal in his memoirs of the root and groundwork of his calculation thesis.[22] For Mises was *not*, like Hayek and his followers, concentrating on the flaws in the general equilibrium model when he arrived at his position; nor was he led to his discussion solely by the triumph of the socialist revolution in the Soviet Union. For Mises records that his position on socialist calculation emerged out of his first great work, *The Theory of Money and Credit* (1912). In the course of that notable integration of monetary theory and "micro" marginal utility theory, Mises was one of the very first to realize that subjective valuations of the consumers (and of laborers) on the market are purely ordinal, and are in no way measurable. But market prices are cardinal and measurable in terms of money, and market money prices bring goods into cardinal comparability and calculation (e.g., a $10 hat is "worth" five times as much as a $2 loaf of bread).[23] But Mises realized that this insight meant it was absurd to say (as Schumpeter would) that the market "imputes" the values of consumer goods back to the factors of production. Values are not directly "imputed"; the imputation process works

only indirectly, by means of money prices on the market. Therefore socialism, necessarily devoid of a market in land and capital goods, must lack the ability to calculate and compare goods and services, and therefore any rational allocation of productive resources under socialism is indeed *impossible*.[24]

For Mises, then, his work on socialist calculation was part and parcel of his expanded integration of direct and monetary exchange, of "micro" and "macro," that he had begun but not yet completed in *The Theory of Money and Credit*.[25]

Fallacies of Hayek and Kirzner

The orthodox line of the 1930s and 40s was wrong in claiming that Hayek and his followers (such as Lionel Robbins) abandoned Mises's "theoretical" approach by bowing down to the Pareto-Barone equations, falling back on "practical" objections to socialist planning.[26] As we have already seen, Hayek scarcely ceded to mathematical equations of general equilibrium the monopoly of correct economic theory. But it is also true that Hayek and his followers fatally and radically changed the entire focus of their "Austrian" position, either by misconstruing Mises's argument or by consciously though silently shifting the crucial terms of the debate.

It is no accident, in short, that Hayek and the Hayekians dropped Mises's term "impossible" as embarrassingly extreme and imprecise. For Hayek, the major problem for the socialist planning board is its lack of *knowledge*. Without a market, the socialist planning board has no means of knowing the value-scales of the consumers, or the supply of resources or available technologies. The capitalist economy is, for Hayek, a valuable means of disseminating knowledge from one individual to another through the pricing "signals" of the free market. A static, general equilibrium economy would be able to overcome the Hayekian problem of dispersed knowledge, since eventually all data would come to be known by all, but the everchanging, uncertain data of the real world prevents the socialist planning board from acquiring such knowledge. Hence, as is usual for Hayek, the argument for the free economy and against statism rests on an argument from ignorance.

But to Mises the central problem is not "knowledge." He explicitly points out that *even if* the socialist planners knew perfectly, and eagerly wished to satisfy, the value priorities of the consumers, and *even if* the planners enjoyed a perfect

knowledge of all resources and all technologies, they *still* would not be able to calculate, for lack of a price system of the means of production. The problem is not knowledge, then, but calculability. As Professor Salerno points out, the *knowledge* conveyed by present—or immediate "past"—prices is consumer valuations, technologies, supplies, etc. of the immediate or recent past. But what acting man is interested in, in committing resources into production and sale, is *future* prices, and the present committing of resources is accomplished by the entrepreneur, whose function is to *appraise*—to anticipate—future prices, and to allocate resources accordingly. It is precisely this central and vital role of the *appraising entrepreneur*, driven by the quest for profits and the avoidance of losses, that cannot be fulfilled by the socialist planning board, for lack of a market in the means of production. Without such a market, there are no genuine money prices and therefore no means for the entrepreneur to calculate and appraise in cardinal monetary terms.

More philosophically, the entire Hayekian emphasis on "knowledge" is misplaced and misconceived. The purpose of human action is not to "know" but to employ means to satisfy goals. As Salerno perceptively summarizes Mises's position:

> The price system is not—and praxeologically cannot be—a mechanism for economizing and communicating the knowledge relevant to production plans [the Hayekian position]. The realized prices of history are an accessory of appraisement, the mental operation in which the faculty of understanding is used to assess the quantitative structure of price relationships which corresponds to an anticipated constellation of economic data. Nor are anticipated future prices tools of knowledge; they are instruments of economic calculation. And economic calculation itself is not the means of acquiring knowledge, but the very prerequisite of rational action within the setting of the social division of labor. It provides individuals, whatever their endowment of knowledge, the indispensable tool for attaining a mental grasp and comparison of the means and ends of social action.[27]

In a recent article, Professor Israel Kirzner argues for the

Hayekian position. For Hayek and for Kirzner, the market is a "discovery procedure," that is, an unfolding of knowledge. There is, in this view of the market and of the world, no genuine recognition of the entrepreneur, not as a "discoverer," but as a dynamic risk taker, risking losses if his appraisal and forecast go awry. Kirzner's commitment to the "discovery process" fits all too well with his own original concept of the entrepreneurial function as being that of "alertness," and of different entrepreneurs as being variously alert to the opportunities that they see and discover. But this outlook totally misconceives the role of the entrepreneur. The entrepreneur is not simply "alert"; he forecasts; he appraises; he meets and bears risk and uncertainty by questing for profits and risking losses. As Salerno points out, for all their talk of dynamism and uncertainty, the Hayek-Kirzner "entrepreneur" is curiously bloodless and passive, receiving and passively imbibing knowledge imparted to him by the market. The Hayek-Kirzner entrepreneur is far closer than they like to think to the Walrasian automaton, to the fictional "auctioneer" who avoid all real trades in the marketplace.[28]

Unfortunately, while lucidly expounding the Hayekian position, Kirzner obfuscates the history of the debate by claiming that the later Mises, along with Hayek, changed his position (or, at the least, "elaborated" it) from his original, "static" view of 1920. But on the contrary, as Salerno points out, the "later" Mises explicitly spurned uncertainty of the future as the key to the calculation problem. The key to the calculation question, stated Mises in *Human Action*, is *not* that "all human action points to the future and the future is always uncertain." No, socialism has

> quite a different problem. Today we calculate from the point of view of our present knowledge and of our present anticipation of future conditions. We do not deal with the problem of whether or not the [socialist] director will be able to anticipate future conditions. What we have in mind is that the director cannot calculate from the point of view of his own present value judgments and his own present anticipation of future conditions, whatever they may be. If he invests today in the canning industry, it may happen that a change in consumers' tastes or in the hygienic opinions concerning the wholesomeness of canned food will one day turn his

> investment into a malinvestment. But how can he find out today how to build and equip a cannery most economically?
>
> Some railroad lines constructed at the turn of the century would not have been built if the people had at that time anticipated the impending advance of motoring and aviation. But those who at the time built railroads knew which of the various possible alternatives for the realization of their plans they had to choose from the point of view of their appraisements and anticipations and of the market prices of their day in which the valuations of the consumers were reflected. It is precisely this insight that the director will lack. He will be like a sailor on the high seas unfamiliar with the methods of navigation . . .[29][30]

Solving Equations and Lange's Last Word

One of the unfortunate formulations of Hayek and the Hayekians in the 1930s, giving rise to the general misunderstanding that the only problems of socialist planning are "practical" not "theoretical," was their stress on the alleged difficulty of socialist planners in computing or solving all the demand and supply functions, all the "simultaneous differential equations" needed to plan prices and the allocation of resources. If socialistic planning is to rely on the Pareto-Barone equations, then how will all of them be known, especially in a world of necessarily changing data of values, resources, and technology? Lionel Robbins began this equation-difficulty approach in his study of the 1929 depression, *The Great Depression*. Conceding, with Mises, that the planners could determine consumer preferences by allowing a market in consumer goods, Robbins correctly added that the socialist planners would also have to "know the relative efficiencies of the factors of production in producing all the possible alternatives." Robbins then unfortunately added:

> On paper we can conceive this problem to be solved by a series of mathematical calculations. We can imagine tables to be drawn up expressing the consumers' demands . . . And we can conceive technical information giving us the productivity . . . which could be produced by each of the various

> possible combinations of the factors of production. On such a basis a system of simultaneous equations could be constructed whose solution would show the equilibrium distribution of factors and the equilibrium production of commodities.
>
> But in practice this solution is quite unworkable. It would necessitate the drawing up of millions of equations on the basis of millions of statistical tables based on many more millions of individual computations. By the time the equations were solved, the information on which they were based would have become obsolete and they would need to be calculated anew.[31]

While Robbins's strictures about changes in data were and still are true enough, they helped divert the emphasis from Mises's even-if-static and full-knowledge calculation approach, to Hayek's emphasis on uncertainty and change. More important, they gave rise to the general myth that Robbins's strictures against socialism, unlike Mises's, were only "practical" in the sense of not being able to calculate all these simultaneous equations. Furthermore, in the concluding essay in his *Collectivist Economic Planning*, Hayek set forth all the reasons why the planners could not know essential data, one of which is that they would have to solve "hundreds of thousands" of unknowns. But

> this means that, at each successive moment, every one of the decisions would have to be based on the solution of an equal number of simultaneous differential equations, a task which, with any of the means known at present, could not be carried out in a lifetime. And yet these decisions would . . . have to be made continuously . . .[32]

It is fascinating to note the twists and turns in Oskar Lange's reaction to the equation-solving argument. In his 1936 article, which was long considered the last word on the subject, Lange ridiculed the very terms of the problem. Adopting his "quasi-market" socialist approach, and ignoring the crucial Misesian problem of the necessary absence of any market in land or capital, Lange simply stated that there is no need for planners to worry about these equations, since they would be "solved" by the socialist market:

> Neither would the Central Planning Board have to solve hundreds of thousands . . . or millions . . . of equations. The only "equations" which would have to be "solved" would be those of the consumers and the managers of production plants. These are exactly the same "equations" which are solved in the present economic system and the persons who do the "solving" are the same also. Consumers . . . and managers . . . "solve" them by a method of trial and error . . . And only few of them have been graduated in higher mathematics. Professor Hayek and Professor Robbins themselves "solve" at least hundreds of equations daily, for instance, in buying a newspaper or in deciding to take a meal in a restaurant, and presumably they do not use determinants or Jacobians for that purpose.[33]

Thus, the orthodox neoclassical economic establishment had settled the calculation dispute with Lange-Lerner the acclaimed winner. Accordingly, when the end of World War II brought communism/socialism to his native Poland, Professor Oskar Lange left the plush confines of the University of Chicago to play a major role in bringing his theories to bear on the brave new world of socialist Poland. Lange became Polish ambassador to the United States, then Polish delegate to the United Nations Security Council, and finally chairman of the Polish Economic Council. And yet not once in this entire period or later, did Poland—or any other communist government, for that matter—attempt to put into practice anything remotely like Lange's fictive accounting-type, play-at-market socialism. Instead, they all put into effect the good old Stalinist command-economy model.

It did not take long for Oskar Lange to adjust to the persistence of the Stalinist Model. Indeed, it turns out that Lange, in post-war Poland, argued strongly for the historical necessity of the persistence of the Stalinist model as opposed to his own market socialism. Arguing against his own quasi-decentralized market-socialist solution, Lange, in 1958, revealed that "in Poland, we had some discussions whether such a period of highly centralized planning and management was historical necessity or a great political mistake. Personally, I hold the view that it was a historical necessity."

Why? Lange now claimed:

(a) that the "very process of the social revolution which liquidates one social system and establishes another requires centralized disposal of resources by the new revolutionary state, and consequently centralized management and planning."

(b) second, in underdeveloped countries—and which socialist country was not underdeveloped?—"Socialist industrialization, and particularly very rapid industrialization, which was necessary in the first socialist countries, particularly in the Soviet Union . . . requires centralized disposal of resources." Soon, however, Lange promised, the dialectic of history will require the socialist government to organize quasi-market, decentralized decision-making within the overall plan. [34]

Shortly before his death in 1965, however, Oskar Lange, in his neglected last word on the socialist calculation debate, implicitly revealed that his socialist-market "solution" had been little more than a hoax, to be jettisoned quickly when he indeed saw a way for the Planning Board to solve all those hundreds of thousands or millions of simultaneous equations! Strangely gone was his gibe that everyone "solves equations" every day without having to do so formally. Instead, technology had now supposedly come to the rescue of the Planning Board! As Lange put it:

> Were I to rewrite my essay ["On the Economic Theory of Socialism"] today my task would be much simpler. My answer to Hayek and Robbins would be: so what's the trouble? Let us put the simultaneous equations on an electronic computer and we shall obtain the solution in less than a second. The market process with its cumbersome *tatonnements* appears old-fashioned. Indeed, it may be considered as a computing device of the pre-electronic age.[35]

Indeed, Lange claims that the computer is superior to the market, because the computer can perform long-range planning far better, since it somehow already knows "future shadow prices" which markets cannot seem to obtain.

Lange's naive enthusiasm for the magical planning qualities of the computer in its early days can only be considered a grisly joke to the economists and the people in the socialist countries who have seen their economies go inexorably from bad to far worse despite the use of computers. Lange apparently never

became familiar with the computer adage, *GIGO* ("garbage in, garbage out"). Nor could he have become familiar with the recent estimate of a top Soviet economist that, even assuming that the planning board and its computers could learn the correct data, it would take even the current generation of computers 30,000 years to process the information and allocate the resources.[36]

But there is a more important flaw in Lange's last article than his naivete about the magical powers of the then-new technology of the computer. His eagerness to embrace a way of solving those equations he earlier had claimed didn't *need* conscious solving, demonstrates that he had been disingenuous in claiming that his pseudo-market trial-and-error method would provide a facile way for the socialist society to solve the calculation problem.

Socialist Impossibility and the Argument from Existence

Ever since 1917, or at least since Stalin's great leap forward into socialism in the early 1930s, the defenders of the possibility of socialism against Mises's strictures had one final, clinching, fallback argument. When all the arguments over general equilibrium or equations or entrepreneurship or Walrasian *tatonnements* or the command economy or pseudo-markets had been hashed over, the defenders of socialism could simply fall back on one point: Well, socialism exists, doesn't it? When all is said and done, it exists, and therefore it must be, for one reason or another, possible. Mises must clearly be wrong, even if the "practical" arguments of Hayek or Robbins, arguments of mere degrees of efficiency, need to be soberly considered. At the end of his celebrated survey essay on socialist economics Professor Abram Bergson put the point starkly:

> there can hardly be any room for debate: of course, socialism can work. On this, Lange certainly is convincing. If this is the sole issue, however, one wonders whether at this stage such an elaborate theoretic demonstration is in order. After all, the Soviet planned economy has been operating for thirty years. Whatever else may be said of it, it has not broken down.[37]

In the first place, this triumphal conclusion now rings hollow, since the economies of the Soviet Union and the other socialist bloc countries have now manifestly broken down. And now it also turns out that the Soviet GNP and production figures that Bergson, the CIA, and other Sovietologists have been taking at face value for decades have been nothing but a pack of lies, designed to deceive not the United States, but the Soviet managers' own ruling elite. Even now, Western Sovietologists are reluctant to believe the Soviet economists who are finally trying to tell them the truth about these alleged and much revered data.

But apart from all that, this sort of seemingly decisive empiricist counter to the Misesian critique reveals the perils of using allegedly simple and brute "facts" to rebut theory in the sciences of human action. For why must we assume that the Soviet Union and the Eastern European countries ever really enjoyed full and complete socialism? There are many reasons to believe that, try as they might, the communist rulers were never able to impose total socialism and central planning. For one thing, it is now known that the entire Soviet economy and society has been shot through with a vast network of black markets and evasions of controls, fueled by a pervasive system of bribery known as *blat* to allow escape from those controls. Managers who could not meet their annual production quotas were approached by illegal entrepreneurs and labor teams to help them meet the quotas and get paid off the books. And black markets in foreign exchange have long been familiar to every tourist. Long before the Eastern European collapse of communism, these countries stopped trying to stamp out their black markets in hard currency, even though they were blatantly visible in the streets of Warsaw, Budapest, and Prague. Without uncontrolled black markets fueled by bribery, the communist economies may well have collapsed long ago.[38] This historical point has also been bolstered by Michael Polanyi's "span of control" theory, which denies the possibility of effective central planning from a rather different viewpoint than Mises's.[39]

But the decisive rebuttal has, once again, been levelled by Mises in *Human Action*: the Soviet Union and Eastern European economies were not fully socialist because they were, after all, islands in a world capitalist market. The communist planners were therefore able, albeit clumsily and imperfectly, to use prices set by world markets as indispensable guidelines for the pricing and allocation of capital resources. As Mises pointed out:

> People did not realize that these were not isolated social systems. They were operating in an environment in which the price system still worked. They could resort to economic calculation on the ground of the prices established abroad. Without the aid of these prices their actions would have been aimless and planless. Only because they were able to refer to these foreign prices were they able to calculate, to keep books, and to prepare their much talked about plans.[40]

Mises's insight was confirmed as early as the mid-1950s, when the British economist Peter Wiles visited Poland, where Oskar Lange was helping to plan Polish socialism. Wiles asked the Polish economists how they planned the economic system. As Wiles reported:

> What actually happens is that "world prices", i.e. *capitalist world prices*, are used in all intra-[Soviet] bloc trade. They are translated into rubles . . . entered into bilateral clearing accounts.

Wiles then asked the Polish communist planners the crucial question. Since the Poles were, as good Marxist-Leninists, presumably committed to the triumph, as soon as possible, of world-wide socialism, Wiles asked: "What would you do if there were no capitalist world" from which you could obtain all those crucial prices? The Polish planners' rather cynical answer: "We'll cross that bridge when we come to it." Wiles added that "In the case of electricity the bridge is already under their feet: there has been great difficulty in pricing it since there is no world market."[41] But fortunately for the world and for the Polish planners themselves, they were never truly forced to cross that bridge.

Epilogue: The End of Socialism and Mises's Statue

In his supposedly definitive article of 1936 vindicating economic calculation under socialism, Oskar Lange delivered a once-famous gibe at Ludwig von Mises. Lange began his essay by ironically hailing Mises's services to socialism: "Socialists have certainly good reason to be grateful to Professor Mises, the great

advocatus diaboli of their cause. For it was his powerful challenge that forced the socialists to recognize the importance of an adequate system of economic accounting. . . . the merit of having caused the socialists to approach this problem systematically belongs entirely to Professor Mises." Lange then went on to taunt Mises:

> Both as an expression of recognition for the great service rendered by him and as a memento of the prime importance of sound economic accounting, a statue of Professor Mises ought to occupy an honorable place in the great hall of the Ministry of Socialization or of the Central Planning Board of the socialist state.

Lange went on to say that "I am afraid that Professor Mises would scarcely enjoy what seemed the only adequate way to repay the debt of recognition incurred by the socialists . . ." For one thing, Lange concluded, to complete Mises's discomfiture

> a socialist teacher might invite his students in a class on dialectical materialism to go and look at the statue, in order to exemplify the Hegelian *List der Vernuft* [cunning of Reason] which made even the staunchest of *bourgeois* economists unwittingly serve the proletarian cause.[42]

Curiously enough, Lange, during his years as socialist planner in Poland, never got around to erecting the statue to Mises at the Ministry of Socialization in Warsaw. Perhaps socialist planning was not successful enough to accord Mises that honor—or perhaps there were not enough resources to build the statue. In any case, the opportunity has been lost. The countries of Eastern Europe now stand in the rubble wrought by what used to be called in the 1930s "the great socialist experiment." Emerging gloriously out of the rubble of the collapse of socialism are a myriad of Misesian economists, to whom socialism is little more than a grisly joke. Even as early as the 1960s it was a common quip among economists that, at international economic conferences, "the Western economists talk about the glories of planning while the Eastern economists talk about the virtues of the free market." Now Misesian economists are springing out of the ruins of socialism in Poland, Lithuania, Czechoslovakia, Hungary, Yugoslavia (especially Croatia and Slovenia) and the

Soviet Union. Neither socialist planning nor Marxism-Leninism hold any charms for the economists of the once-socialist nations.

In all of these countries, the giant statues of Lenin are being unceremoniously toppled from the public squares. Whether or not the coming free societies of Eastern Europe choose to replace them with statues of Ludwig von Mises, as the prophet of their liberation, one thing seems certain: there will be no statues erected to Oskar Lange in Cracow or Warsaw. It is hard to see how even the cunning of Reason and the Hegelian dialectic can make Lange out to be a prophet or an important contributor to the laissez-faire Polish economy of the future. Perhaps the closet approach was a bitter quip pervading Eastern Europe during the revolutionary year of 1989: "Communism can be defined as the longest route from capitalism to capitalism."

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[1] Mises's article, published in 1920 in German, "Die Wirtschaftsrechnung im sozialistischen Gemeinwesen," was only made available in English in 1935: Mises, "Economic Calculation in the Socialist Commonwealth," in F. A. Hayek, ed., *Collectivist Economic Planning* (London: Routledge and Sons, 1935), pp. 87–130. The article was republished as a monograph by the Mises Institute with a notable postscript by Professor Joseph T. Salerno (Ludwig von Mises, *Economic Calculation in the Socialist Commonwealth* [Auburn, Ala.: Ludwig von Mises Institute, 1990]).

[2] Alexander Gray, *The Socialist Tradition* (London: Longmans, Green, 1946), p. 90.

[3] Oskar Lange's well-known article was originally in two parts: "On the Economic Theory of Socialism," *Review of Economic Studies* 4 (October 1936): 53–71, and ibid. 5 (February 1937): 132–42; Fred M. Taylor's article was "The Guidance of Production in a Socialist State," *American Economic Review* 19 (March 1929); Taylor was reprinted and Lange revised and published in Oskar Lange and Fred M. Taylor, *On the Economic Theory of Socialism*, B. Lippincott, ed. (Minneapolis: University of Minnesota Press, 1938).

[4] Abram Bergson, "Socialist Economics," in H. S. Ellis, ed.,

A Survey of Contemporary Economics (Philadelphia: Blakiston, 1948), pp. 412–48.

[5] Lange was aided in this construction by being able to use Hayek's collection of articles on the subject, which had just been published the year before his first article, as a useful foil. Hayek's volume included the seminal article by Mises, other contributions by Pierson and Halm, two articles by Hayek himself, and the alleged refutation of Mises by Barone. See Hayek, *Collectivist Economic Planning*.

[6] Bergson, "Socialist Economics," p. 446.

[7] F. A. Hayek, "The Use of Knowledge in Society" (1945), in Hayek, *Individualism and Economic Order* (Chicago: University of Chicago Press, 1948), p. 90.

[8] The silliness of hailing Barone's essay as a refutation of Mises is highlighted by the fact that Barone's article was published in 1908, twelve years before Mises's article which it is supposed to have refuted. The date was well known to, and made no impression upon, Ludwig von Mises. Moreover, Barone and Pareto themselves had only scorn for any notion that their equations could aid socialist planning. See Trygve J. B. Hoff, *Economic Calculation in the Socialist Society* (1949; Indianapolis, Ind.: Liberty Press, 1981), pp. 222–23.

[9] Here, as in other parts of his argument—as we shall see further below—Mises is leaning over backward to concede the market socialists their best case, and is not considering whether such free consumer or labor markets are really likely in a world where the state is the only seller, as well as the only purchaser, of labor.

[10] Mises's later rebuttal is in his *Human Action* (New Haven: Yale University Press, 1949), pp. 694–711. For the establishment, the debate was supposed to be over by 1938. For an example of a Hayekian survey of the debate that does not bother to so much as mention *Human Action*, see Karen I. Vaughn, "Introduction," in Hoff, *Economic Calculation*, pp. ix–xxxvii. Indeed, in an earlier paper, Vaughn had sneered that "Mises' so-called final refutation in *Human Action* is mostly polemic and glosses over the real problems . . ." Vaughn, "Critical Discussion of the Four Papers," in Lawrence Moss, ed. *The Economics of Ludwig von Mises* (Kansas City: Sheed and Ward, 1976), p. 107. The Hayekian doctrine will be treated further below.

For a refreshing example of an outstanding Misesian contribution to the debate that does not neglect or deprecate

Human Action but rather builds upon it, see Joseph T. Salerno, "Ludwig von Mises as Social Rationalist," *Review of Austrian Economics* 4 (1990): 36–48. Also see Salerno, "Why Socialist Economy is *Impossible*," a Postscript to Mises, *Economic Calculation in the Socialist Commonwealth* (Auburn, Ala.: Ludwig von Mises Institute, 1990).

[11] Mises, *Human Action*, pp. 703–04.

[12] Ibid., pp. 704–05.

[13] Ibid., p. 705.

[14] The fact that some socialist bloc countries, such as Hungary, now permit a stock market, albeit small and truncated, and that other ex-communist countries are seriously considering introducing such capital markets, demonstrates the enormous importance of the de-socialization now under way in Eastern Europe.

[15] See Murray N. Rothbard, "Breaking Out of the Walrasian Box: The Cases of Schumpeter and Hansen," *Review of Austrian Economics* 1 (1987): 98–100, 107.

[16] On Knight vs. Hayek, Machlup, and Boulding in the 1930s, see F. A. Hayek, "The Mythology of Capital," in W. Fellner and B. Haley, eds., *Readings in the Theory of Income Distribution* (Philadelphia: Blakiston, 1946), pp. 355–83. For a Knightian attack on the Austrian discounted marginal productivity theory on behalf of what is now the orthodox undiscounted (by time-preference) marginal productivity theory, see Earl Rolph, "The Discounted Marginal Productivity Doctrine," ibid., pp. 278–93. For an Austrian rebuttal, see Murray N. Rothbard, *Man, Economy, and State*, vol. 1 (Los Angeles: Nash, 1970), pp. 431–33; and Walter Block, "The DMVP-MVP Controversy: A Note," *Review of Austrian Economics* 4 (1990): 199–207.

[17] Frank H. Knight, "Review of Ludwig von Mises, *Socialism*," *Journal of Political Economy* 46 (April 1938): 267–68. In another review in the same issue of the journal, Knight claims that there *would* be a "capital market" under socialism, but it is clear that he is referring only to a market for loans, and not to a genuine market in equities throughout the production structure. Here again, Mises has a devastating critique of this sort of scheme in *Human Action*, pointing out that managers bidding for governmental planning board funds would not be bidding for or staking their own property, and hence they would "not be restrained by any financial dangers they themselves run in promising too high a rate of interest for the funds borrowed. . . .

All the hazards of this insecurity fall only upon society, the exclusive owner of all resources available. If the director were without hesitation to allocate the funds available to those who bid most, he would simply . . . abdicate in favor of the least scrupulous visionaries and scoundrels." See Knight, "Two Economists on Socialism," *Journal of Political Economy* 46 (April 1938): 248; and Mises, *Human Action*, p. 705.

[18] Georg Halm, "Further Considerations on the Possibility of Adequate Calculation in a Socialist Community," in Hayek, *Collectivist Economic Planning*, pp. 162–65. Also see ibid., pp. 13–200.

[19] Mises, "Economic Calculation in the Socialist Commonwealth," pp. 106–08.

[20] Ibid., p. 106. This conclusion of 1920 is strikingly close to the quip common in the Poland of 1989, as reported by Professor Krzyztof Ostazewski of the University of Louisville: that the socialist planned economy is "a value-shredding machine run by an imbecile."

[21] Mises, *Human Action*, pp. 706–09. As Mises puts it: "socialists of all shades of opinion, repeat again and again that what makes the achievement of their ambitious plans realizable is the enormous wealth hitherto accumulated. But in the same breath they disregard the fact that this wealth consists to a great extent in capital goods produced in the past and more or less antiquated from the point of view of our present valuations and technological knowledge." Ibid., p. 710.

[22] In Mises's *Notes and Recollections* (Spring Mills, Penn.: Libertarian Press, 1978), p. 112. Also see the discussion in Murray N. Rothbard, *Ludwig von Mises: Scholar, Creator, Hero* (Auburn, Ala.: Ludwig von Mises Institute, 1988), pp. 35–38.

[23] On the market, then, consumers *evaluate* goods and services ordinally, whereas entrepreneurs *appraise* (estimate and forecast future prices) cardinally. On valuation and appraisement, see Mises, *Human Action*, pp. 327–330; Salerno, "Mises as Social Rationalist," pp. 39–49; and Salerno, "Socialist Economy is *Impossible*."

[24] Mises says in his memoirs: "They [the socialists] failed to see the very first challenge: How can economic action that always consists of preferring and setting aside, that is, of making unequal valuations, be transformed into equal valuations, by the use of equations? Thus the advocates of socialism came up with the absurd recommendation of substituting equations of mathematical catallactics, depicting an image from which human

action is eliminated, for the monetary calculation in the market economy." Mises, *Notes and Recollections*, p. 112.

[25] This integration was later completed by his business-cycle theory in the 1920s, and then in his monumental treatise *Human Action*.

[26] Except for the unfortunate emphasis of Hayek and Robbins on the alleged socialist difficulty of computing or "counting" the equations. See below.

[27] Salerno, "Mises as Social Rationalist," p. 44.

[28] Israel M. Kirzner, "The Economic Calculation Debate: Lessons for Austrians," *Review of Austrian Economics* 2 (1988): 1–18. Hayek coined the term "discovery procedure" in F. A. Hayek, "Competition as a Discovery Procedure," in *New Studies in Philosophy, Politics, Economics and the History of Ideas* (Chicago: University of Chicago Press, 1978), pp. 179–90. For a critique of Kirzner's concept of entrepreneurship, see Murray N. Rothbard, "Professor Hébert on Entrepreneurship," *Journal of Libertarian Studies* 7 (Fall 1985): 281–85. For Hayek's own contributions to the socialist calculation debate after Lange-Lerner, see F. A. Hayek, "Socialist Calculation III: The Competitive 'Solution'" (1940), and "The Use of Knowledge in Society," (1945), in *Individualism and Economic Order*, pp. 181–208; 77–91.

[29] Mises, *Human Action*, p. 696. Also see Salerno, "Mises as Social Rationalist," pp. 46–47ff.

[30] Kirzner apparently believes that Mises's concentration on entrepreneurship in his *Human Action* discussion of socialism demonstrates that Mises had gone over to the Hayek position. Kirzner seems to overlook the vast difference between Mises's forecasting and appraisement view of entrepreneurship and his own "alertness" doctrine, which totally leaves out the possibility of entrepreneurial loss.

[31] Lionel Robbins, *The Great Depression* (New York: Macmillan, 1934), p. 151.

[32] F. A. Hayek, "The Present State of the Debate," in Hayek, *Collectivist Economic Planning*, p. 212.

[33] Oskar Lange, "On the Economic Theory of Socialism, Part One," p. 67. The Norwegian economist and defender of Mises's position, Trygve Hoff, commented that "Quite apart from the fact that the equations the central authority would have to solve are of quite a different nature to those of the private individual, the latter tend to solve themselves automatically, which Dr. Lange must admit the former do not." Hoff, *Economic Calculation in the Socialist Society*, pp. 221–22. This excellent

book on the socialist calculation controversy was originally published in Norwegian in 1938. In contrast to Bergson's almost contemporaneous survey article, Hoff's English-language translation, published in 1949 in Britain but not in the United States, sank without a trace.

[34] Oskar Lange, "The Role of Planning in Socialist Economy," in *The Political Economy of Socialism* (1958) in M. Bornstein, ed., *Comparative Economic Systems*, rev. ed. (Homewood, Ill.: Richard D. Irwin, 1969), pp. 170–71.

[35] Oskar Lange, "The Computer and the Market," in A. Nove and D. Nuti, eds. *Socialist Economics* (London: Penguin Books, 1972), pp. 401–02.

[36] Yuri M. Maltsev, "Soviet Economic Reform: An Inside Perspective," *The Freeman* (March 1990).

[37] Bergson, "Socialist Economics," p. 447.

[38] One source on this pervasive system in the Soviet Union is Konstantin M. Simis, *USSR: The Corrupt Society* (New York: Simon & Schuster, 1982).

[39] Michael Polanyi, *The Logic of Liberty* (Chicago: University of Chicago Press, 1951), pp. 111–37 and passim.

[40] Mises, *Human Action*, pp. 698–99.

[41] Peter J. D. Wiles, "Changing Economic Thought in Poland," *Oxford Economic Papers* 9 (June 1957): 202–03. Also see Murray N. Rothbard, "Ludwig von Mises and Economic Calculation Under Socialism," in Lawrence Moss, *The Economics of Ludwig von Mises*, pp. 67–77.

[42] Lange, "The Economic Theory of Socialism," p. 53.

De-Socialization in a United Germany

Hans-Hermann Hoppe

I

As a result of the defeat of Hitler's Germany in World War II, there were 10 million refugees living on a significantly reduced German territory; 40 percent of the population was bombed-out (the population of Cologne, for instance, had declined from 750,000 to 32,000) and 60 percent was undernourished.[1]

In those territories occupied by the Western Allies, initially the economic system inherited from the Nazi regime—a command-war-economy—was retained. Almost all consumer goods were rationed, all-around price and wage controls remained in effect, and imports and exports were strictly regulared by the military administration. Black markets and barter trade were ubiquitous. Due to general price maxima and an expansionary supply of paper Reichsmarks, no goods were to be found and money was largely useless.[2] Black-market prices experienced a highly inflationary development and substitute currencies like coffee, cigarettes, and butter emerged. German output in 1946 was less than one-third of what it had been in 1938. Chaos and desperation were the mark of the day.

In response to the beginning Cold War between the Allies, in particular the United States and the Soviet Union, the Western Powers in 1947 changed their policy toward Germany. While their previous goal had been the de-industrialization of Germany —the industrial production was supposed to be frozen at 50–55 percent of Germany's 1938 output level—so as to permanently impoverish the German population, it was now decided to further the economic reconstruction of the Western occupied territories in order to build up an economic power base for the new strategy of *containment* and *roll back*.[3]

From 1948 through 1952 the three Western zones received $1.5 billion in Marshall aid. More importantly, in May of 1947 the British and American occupied zones were merged, and the economic administration of the unified region was largely put

back into German hands, and on March 2, 1948, Ludwig Erhard, former economic minister of Bavaria, was elected director. Erhard, whose economic philosophy had been heavily influenced by the neo-liberal Freiburg school of Walter Eucken and Franz Böhm, which had in turn been influenced by the Austrian school of Ludwig von Mises,[4] initiated a currency reform on June 20, 1948, and consequently pursued a hard-money policy. As long as the monopoly of note issue rested with the Allies—who had set up a central banking system modeled after the United States Federal Reserve—the money supply remained drastically expanded (by more than 150 percent), with almost immediate inflationary consequences. However, after October 1948 a continuously tight monetary policy was put into effect (in the beginning, the minimum reserve requirements and the discount rate were actually raised, while taxes were lowered), which quickly established West Germany as one of the world's least inflationary countries and the deutsche mark as one of the hardest currencies (during this 13-year period from 1948–1961 the consumer price index rose by a 'mere' 14 percent).

More importantly, contrary to the advice of American and British economic experts, who were taken completely by surprise, and against the prevailing public opinion in Germany, on June 24, 1948, only 4 days after the currency reform, Ludwig Erhard implemented a radical—although by no means flawless[5]—free-market reform. In accordance with the precepts of the 'new' Keynesian economics and the practice of the ruling British Labor Party, foreign experts and German public opinion had favored a policy of macro-economic management, of socialized investment, and a sector of nationalized 'basic' industries.[6] Instead, with one stroke Erhard abolished almost all price and wage controls and allowed almost complete freedom of movement, trade and occupation, thus radically expanding the rights of private-property owners.[7]

Less than one year later, on May 23, 1949, the Federal Republic of Germany (FRG) was founded and the framework of the *soziale Marktwirtschaft* (Socialist Market Economy) created by Ludwig Erhard, became ratified as West Germany's economic constitution.[8]

From the outset, the development in the Soviet-occupied territories of Germany took a different course.[9] In 1945, with its first order, the Soviet Military Administration nationalized all banks. In the same year, all farms of more than 250 acres were seized (50 percent of all land used for agriculture), and all

property of actual and alleged Nazis and war criminals was confiscated. When on November 7, 1949,—a few months after the Western Allies had licensed the new West German government—the new East German state (GDR) received its license from the Soviet Union, the Soviet practice of large-scale expropriation was elevated to a constitutional principle: "The economy of the German Democratic Republic is a planned socialist economy."[10] By 1960, more than 90 percent of all agricultural land was in the hands of socialized producer co-ops. By 1950, more than 60 percent of all productive output was produced in socialized firms. By 1960, more than 80 percent of East German output originated from socialized production; and by the early 1970s the expansion of the socialized sector had reached 95 percent (i.e., a mere 5 percent of productive output originated in state-licensed private enterprises).[11]

In addition, from 1945 through 1953, during the Stalin era, East Germany was forced to pay heavy reparations (45 percent of the productive equipment of 1945 was dismantled and confiscated by the Soviets vs. 8 percent in the West). To facilitate centralized economic planning, a one-stage central banking system was set up. The central bank became the monopolistic note issuer and central commercial bank at the same time, with regional and local banks as its branches (rather than separating both functions and leaving the commercial banking function in private hands, as in West Germany and the United States). Three days after the West German currency reform, on June 23, 1948, a new East German currency—initially with an official 1:1 exchange rate against West Germany's deutsche mark—was introduced. However, a continuing policy of monetary expansion, combined with price maxima for all 'basic' consumer goods, quickly led back to the phenomenon of "repressed inflation," i.e., an excess supply of anesthetized money. In response, in 1957 a second currency reform was carried out: All banknotes in excess of 300 East marks per person were declared invalid. But to no avail: the excess supply of money again swelled to an estimated 150 billion Marks (about 10,000 per person). The steady supply of anesthetized money entered the black, private markets, where prices drastically increased and the East German currency continually depreciated against the deutsche mark. Increasingly, the deutsche mark outcompeted the East mark as a medium of exchange on the black markets ("good money drives out bad") and soon became East Germany's second currency: its unofficial but "real" money.

From 1949, at which time the West and East German states were founded, until the dramatic events of 1989, a controlled social experiment was conducted. A homogeneous population, with a common history, culture, character structure, work ethic and above all language, was subject to two fundamentally different economic constitutions and institutional incentive structures.

II

The difference in the results has been striking. Yet no social experiment was necessary to find this out. Naturally not all empirical details, but the fundamental outcome of the German experiment could have been predicted with certainty by those familiar with the principles of economic theory, and in particular the theoretical economic analyses of socialism by the Viennese (Austrian) school, most notably Ludwig von Mises's. In his famous *Die Gemeinwirtschaft: Untersuchungen über den Sozialismus*, of 1922,[12] Mises irrefutably demonstrated what the East Germans were forced to find out the hard way: that socialism must end in disaster.

Wealth can be brought into existence or increased in three and only three ways: by perceiving certain nature-given things as scarce and actively bringing them into one's possession before anyone else has seen and done so (homesteading); by producing goods with the help of one's labor and such previously appropriated resources; or by acquiring a good through voluntary, contractual transfer from a previous appropriator or producer. Acts of original appropriation turn something which no one had previously perceived as a possible source of income into an income-providing asset; acts of production are by their very nature aimed at the transformation of a less valuable asset into a more valuable one; and every contractual exchange concerns the exchange and redirection of specific assets from the hands of those who value their possession less to those who value them more.

From this it follows that socialism cannot but lead to impoverishment:[13]

(1) Under socialism, ownership of productive assets is assigned to a collective of individuals regardless of each member's prior actions or inactions in relation to the owned assets. In effect, then, socialist ownership favors the non-homesteader, the non-producer, and the non-contractor and

disadvantages homesteaders, producers, and contractors. Accordingly, there will be less original appropriation of natural resources whose scarcity is realized, there will be less production of new and less upkeep of old factors of production, and there will be less contracting. All of these activities involve costs. Under a regime of collective ownership the costs of performing them is raised, and that of not performing them is lowered.

(2) Since means of production cannot be sold under socialism, no market prices for factors of production exist. Without such prices, cost-accounting is impossible. Inputs cannot be compared with outputs; and it is impossible to decide if their usage for a given purpose has been worthwhile or has led to a squandering of scarce resources in the pursuit of projects with relatively little or no importance for consumers. By not being permitted to take any offers from private individuals who might see an alternative way of using some given means of production, the socialist caretaker of capital goods simply does not know what his foregone opportunities are. Hence, permanent misallocations of production factors must ensue.

(3) Even *given* some initial allocation, since input factors and the output produced are owned collectively, every single producer's incentive to increase the quantity and/or quality of his individual output is systematically diminished; and likewise, his incentive to use input factors so as to avoid their over- or under-utilization is reduced. Instead, with gains and losses in the socialist firm's capital- and sales-account socialized instead of attributed to specific, individual producers, everyone's inclination toward laziness and negligence is systematically encouraged. Hence, an inferior quality and/or quantity of goods will be produced and permanent capital consumption must ensue.

(4) Under a regime of private property, the person who owns a resource can determine independently of others what to do with it. If he wants to increase his wealth and/or rise in social status, he can only do so by better serving the most urgent wants of voluntary consumers through the use that he makes of his property. With collectively owned factors of production, collective decision-making mechanisms are required. Every decision as to what, how and for whom to produce, how much to pay or charge, and who to promote or demote, is a political affair. Any disagreement must be settled by superimposing one person's will on another's view, and this invariably creates winners and losers. Hence, if one wants to climb the ladder

under socialism, one must resort to one's political talents. It is not the ability to initiate, to work, and to respond to the needs of consumers that assures success. Rather, it is by means of persuasion, demagoguery, and intrigue, through promises, bribes, and threats that one rises to the top. Needless to say, this politicalization of society, implied in any system of collectivized ownership, contributes even more to impoverishment.

The German experiment provides the sad illustration for the validity of economic theory.

Erhard's free-market reforms quickly generated what has become known as the West German *Wirtschaftswunder* (economic miracle). After a short—and unsurprising—increase of unemployment, peaking at a rate of 8 percent in 1950, unemployment began steadily to decrease. By 1962, at the height of the Erhard era, the unemployment rate had fallen to 0.2 percent, and the number of employed persons had increased by some 8 million (more than 60 percent). The total wage sum tripled during the period from 1948–1960, and wage rates more than doubled in constant terms. In the same time, total industrial production increased fourfold, GNP per capita tripled, and the West German rate of economic growth far surpassed that of all other West European nations and the United States. By the early 1960s, West Germans ranked among the world's most prosperous people, and West Germany had become one of the foremost industrial nations, with products made in West Germany increasingly in demand worldwide (in 1960 West German exports made up 10 percent of world exports: nearly twice the world market share of 1937).[14]

Predictably, the economic development of East Germany took the opposite direction. After 40 years of West German *soziale Marktwirtschaft* versus East German socialism, the visitor going from West to East enters an almost completely different and impoverished world. Life is characterized by permanent shortages of all sorts of consumer goods (from meat to housing), endless mismatches of complementary factors of production, an inferior, shoddy quality of almost everything produced, and a pervasive black market struggling to alleviate the mess created by the official economy. Indicators of misallocation and capital consumption are omnipresent. Insufficiently maintained, deteriorating, unrepaired, and rusting property is common, and vandalism of production factors, machinery, and buildings is rampant. Within the official economy, negligence, laziness, despair, cynicism and sheer incompetence abound, and

widespread hidden unemployment exists. Environmental damage has at many places reached catastrophic dimensions (socialization of negative externalities). Economic illiteracy among the population is pervasive. In world export markets East Germany is reduced to the rank of a third-world country that cannot sell anything except raw materials, half-finished products, or basic, simple consumer goods.

In the mid-1950s the East German per capita consumption already lagged an estimated 40 percent behind West Germany's. In the late 1980s, average wage income in East Germany was less than half of that in West Germany assuming a 1:1 currency exchange rate, and less than 1/10th if, more realistically, the black-market exchange rate between the East mark and deutsche mark is taken as the conversion ratio. Nominally, the average wage income in East Germany was somewhat lower—and in real terms more than 5 times lower—than the typical *unemployment subsidy* in West Germany. Nominally, average old age pensions in East Germany were 3 times—and in real terms 15 times—lower than in West Germany; and East Germany's minimum welfare handouts were nominally nearly 50 percent—actually more than 7 times—less than those paid in the West.

However, most revealing is the voting-by-feet-statistic: While all socialist countries of Eastern Europe have been plagued by the emigration problem of people wanting to leave for the more prosperous West, and while they all gradually had to establish tighter border controls in order to prevent this outflow, the case of Germany is a most striking one. With language differences, traditionally the most severe natural barrier for emigrants, nonexistent and West Germany automatically granting citizenship to all East German immigrants, the difference in living standards between the two Germanys proved to be so great that East Germany was from its very inception confronted with a massive wave of emigration. Following the industrial revolts of 1953, and their suppression by the occupying Soviet military forces, emigration reached such proportions—more than 3.5 million individuals had already deserted the East and this number increased by more than 1,000 per day—that on August 13, 1961 the socialist regime in East Germany desperately had to close its borders to the West. To keep its population in, it erected a containment system the likes of which the world has never seen. A system of walls, barbed wire, electrified fences, mine fields, automatic shooting devices, and watchtowers almost 900 miles long were constructed, for the sole purpose of preventing

the East Germans from running away from socialism. From 1961–1989 the problem was thus contained. However, beginning in the summer of 1989, when socialist Hungary began to open its border to Austria, and even more so since the dismantling of the East German wall in November of 1989, the wave of East German emigration immediately resumed. Since then, each day more than 2,000 East Germans have packed and left socialism behind.[15]

III

While the underlying cause for the collapse of the East German socialist experiment in 1989 was economic, there is little doubt that Gorbachev's policy of *glasnost* and *perestroika* in the Soviet Union during the second half of the 1980s served as the catalyst for the revolutionary developments currently taking place in Germany and across Eastern Europe. This policy reduced the Soviet Union's pressure on its East European satellite states, in particular since from the outset Gorbachev's new internal policies had been explicitly connected to a non-interventionist foreign policy, and at the same time it dramatically uplifted the hopes and expectations of all East European people. Without this special constellation of data, created by Gorbachev, neither the peaceful anti-communist revolution in Poland nor the liberalization of Hungary would have been possible; and without the Polish and Hungarian events neither the East German nor the Czechoslovakian revolution would have followed.

Ultimately, Gorbachev must also be credited for the move towards reunification of East and West Germany. On the forever memorable November 9, 1989, steadily increasing pressures of mass emigration and civil unrest burst the East German socialist bubble, the borders to West Berlin and West Germany had to be thrown open, and the Germans of East and West reunited, moved and overjoyed, on top of the Berlin Wall. Since that date there has been no question of two separate German States. Public opinion in East and West overwhelmingly demanded reunification.

The economic dynamic set in motion by the events of November 9th succeeded in burying any remaining hopes within the East German regime of somehow restoring a separate socialist East German state. The uninterrupted mass flight of highly qualified personnel and unceasing internal unrest sharply aggravated East Germany's already desperate economic situation.

Within a few days, the East mark depreciated against the deutsche mark from a ratio of 5:1 to 10:1, and only two reasons prevented it from becoming completely worthless. First, with increasingly open borders, for a short period of time holders of East marks could buy a number of maximum price controlled products in East Germany and profitably resell them in the West. Once the already sparsely decorated East German shelves were thus emptied and fewer or ho new supplies were forthcoming, only one other reason remained: the public expectation that as part of the inevitable process of German reunification the West German central bank would eventually redeem East marks at some arbitrarily overvalued rate into deutsche marks.

Different but related economic problems emerged in West Germany. While during the 1950s and 1960s the West German economy successfully integrated millions of East German refugees and Southern European "guest workers," the economy of the 1980s was severely strained by the latest wave of immigration. For from 1950 until the 1980s, the West German economy experienced a gradual transformation. Over time, Erhard's free-market Germany changed into a gigantic welfare state, and the early West German economic expansionism was replaced by economic stagnation.

From the outset Erhard's free-market reforms had been far from pure.[16] He had not introduced a *Marktwirtschaft*, but a *soziale Marktwirtschaft*, and theoretical observers such as Ludwig von Mises had warned early—prophetically—that this concession to a *social* economy would ultimately lead to welfare state socialism.[17] As the successor of the German Reich, the West German state immediately became West Germany's biggest real-estate owner, capitalist, and employer. Education, traffic, communication, schools, universities, streets, rivers, lakes, railroads, airlines, mail, telephone, radio, and television were in government hands and were soon complemented by a newly founded conscription army. All banks were cartelized within a government-controlled central banking system. Bismarck's compulsory social security system was resurrected and remained under government control. Housing and agriculture were largely left outside of and protected from markets. Mining, coal, steel, shipbuilding, and textiles were accorded special government protection. Beginning with the Co-Determination Law of 1951 and the Commercial Constitution Law (*Betriebsverfassungsgesetz*) of 1952, a series of so-called labor-protection laws were introduced (including subsidies to unemployment and

compulsory collective bargaining), which increasingly limited the right of freedom of contract in employer-employee relations. With the deceptive "law against restrictions of competition" (*Anti-Kartell Gesetz*) of 1957, the basic principle of market competition—of free and unrestricted entry—was largely suspended, and all 'significant' economic developments were subject to government approval.[18] All the while, the West German government could not resist the temptation to steadily increase taxes and the supply of paper money. Consequently, in 1966 West Germany experienced its first major recession, putting an end to Erhard's career, who by then had become chancellor. Economic growth fell from 9 percent in 1960 to 2 percent in 1966 and was negative in 1967. For the first time in over a decade the number of unemployed rose (to 2 percent).

In the post-Erhard era, in particular during the period from 1969–1982 under the reign of a social-democratic-liberal government coalition led by Willy Brandt and Helmut Schmidt, the welfare-statist transformation of the West German economy proceeded at an accelerated rate.[19] From 1969–1975 alone, some 140 laws were passed that entitled various 'socially disadvantaged' groups to tax subsidies. The so-called labor-protection and anti-trust laws were drastically stiffened. Taxes and social security contributions were significantly increased, in order to finance all sorts of so-called public goods and enhance 'the quality of life.' By resorting to a Keynesian policy of deficit spending (the Federal government deficit rose from 57 billion deutsche marks in 1970 to 232 billion in 1980 and 503 billion in 1989), and aided by the fact that initially inflation was not anticipated, the economic consequences of these policies were delayed for a few years—only to appear later with a vengeance. Unanticipated inflation and credit expansion had created and prolonged the malinvestment typical of a boom; yet this boom, built on nothing but paper money, would inevitably be followed by a liquidation crisis—a recession.[20] Socialist chancellor Helmut Schmidt's motto had been "rather 5 percent inflation than 5 percent unemployment." In fact, not only was there soon much more than 5 percent inflation (inflation became anticipated and the demand for money declined), but unemployment also rose steadily, with both rates simultaneously approaching 10 percent. Economic growth slowed until early in the 1980s, when GNP fell in absolute terms. For the first time in West German history, the number of employed people actually decreased. More and more pressure was put on foreign workers

to leave the country, and the immigration barriers were raised.

Since 1982, at which time the socialist-liberal government (and left-wing Keynesianism) was ousted and replaced by a conservative-liberal government coalition (and right-wing Keynesianism), West Germany has proceeded on its march toward the welfare state, if only at a slower pace: Government expenditures, which had increased from about 30 percent of GNP in 1960 to more than 50 percent in the early 1980s, and government debts have continued to rise. The inflation rate has been lowered, and the rate of economic growth raised. But neither rate has fallen or risen to levels anywhere near those which had characterized the Erhard era; and after 8 years of conservative-liberal rule the number of unemployed, which reached 2.3 million in 1983, was still above 2 million (nearly 8 percent). In this situation, the arrival of large numbers of East German immigrants at once eligible for West German welfare handouts and unemployment subsidies quickly began to expose not only the bankruptcy of socialism, but that of the West German welfare state as well.

Thus, the threat of East Germany's political instability spilling over to West Germany forced the West German political power elite to act quickly and take the initiative in the inevitable process of reunification. However, contrary to the situation in the late 1940s, when Erhard had handled a similar crisis in German history by adopting an unpopular but successful strategy of free-market crisis management, some 40 years later the course pursued by West Germany's political establishment is yet another giant step toward welfare socialism and bound to further aggravate West Germany's economic stagnation (notwithstanding the popularity of the policy among the West and in particular the East German public). Rather than seeking German reunification through a quick and radical de-socialization of East Germany—and indirectly of West Germany—which alone would be in accordance with fundamental principles of justice and sound economics, and which will be outlined and explained shortly, West Germany's political power elite seeks the reunification through the complete incorporation of East Germany into the West German welfare state.

Immediately following the events of November 9, 1989, West Germany's political parties—the ruling conservative Christian Democratic Union, the liberal Free Democratic Party as its minor federal government partner, the Social Democratic Party as the major opposition party, and the national-

conservative Republicans as well as the leftist Greens as the two minor opposition forces—largely in control of the West German state apparatus and essentially tax-funded (through campaign costs compensations), began to extend their presence to East Germany and establish sister organizations. In order to distract from their own steadily increasing invasion of private property rights, the East German crisis was labeled as one of non-democracy rather than non-private property.[21] The East German public, familiar with the West German political system via West German government television and overwhelmingly in favor of welfare-statist ideologies (the territory of East Germany had indeed traditionally been a stronghold of social-democratic and communist support), widely welcomed the West German party 'invasion.' East Germany's first multi-party election on March 18, 1990 ended with a resounding victory for the West German party system. The formerly ruling communist party, meanwhile reconstituted as the Party of Democratic Socialism, was ousted from power (while it remained the third largest party, with a remarkable 15 percent of the vote). Instead, the East German Christian Democratic Union-equivalent, boosted by its affiliation with West Germany's ruling party and its bribe-like promise of a 'generous' exchange rate for East marks through the West German central bank—most frequently proposed were rates of 1:1 or 2:1, which made the East mark rise immediately to 4:1 against the deutsche mark—and a quick and complete incorporation of East Germany into the Federal Republic via article 23 of the West German constitution (which provides for the possibility of legal entry, or *Anschluss*), became by far the strongest political force and senior partner in a newly formed conservative-liberal-social-democratic government coalition representing more than two thirds of the popular vote. Indirectly, the West German power elite had gained control of the development of East Germany and its future course of desocialization.[22]

The date for the official beginning of the German reunification process was set for July 2, 1990, and an outline of the reunification process, including a currency reform and the extension of the West German welfare system to East Germany as its key elements, was announced.[23]

East marks up to 4,000 per person would be exchanged at a rate of 1:1 against the deutsche mark (and at 2:1 in excess of this limit).[24] Because the East German money supply is only a small fraction of the deutsche mark supply, and because the

market for non-money goods would automatically be expanded through the currency unification, the expected inflationary consequences will be relatively minor. However, the currency reform will cause a twofold income redistribution. On the one hand, it implies a compulsory redistribution of purchasing power from West German citizens onto East Germans, although the former are in no way responsible for the plight of the latter and indeed have in the past transferred massive amounts of income to East Germans on a voluntary basis. On the other hand, it implies a coercive income redistribution from West Germany's private sector onto the West German government—which will print the required deutsche marks essentially at no cost—and indirectly its East German government affiliate.

With this currency reform as its foundation, the socio-economic integration of East Germany would begin. Having supplied East Germany with 'sufficient' initial purchasing power, the East German government, directed by its Western senior partner, and as if it were the legitimate owner, would sell off state property.[25] East Germans would be given special treatment as buyers. The East German demand that West Germans be prevented for about a decade from buying land in East Germany has been defeated after a protracted battle, but other less severe restrictions are likely to remain in place. Further, among the hampered West German buyers, large established government-connected firms would enjoy a systematic advantage (in expectation of this likely event their stock market prices have already significantly increased). East Germans with valid titles to expropriated, socialized assets would be reinstated as private owners without having to pay, although only with a large number of exceptions favoring the current asset users over their original owners. On the other hand, West German holders of East German titles would be widely restricted from likewise reclaiming their property and receive instead some arbitrary sub-market price compensation.[26] Although substantial, the reprivatization of East Germany would not include any of the state's command posts—police, courts, traffic, communication, and education—and its extent will be significantly less than the degree of private ownership in West Germany so as to raise the relative size of the government sector for the united Germany above its current level in West Germany alone.[27]

Initially, the receipts from the sale of government assets would be used to finance East Germany's welfare system.

Prominent among the already accepted provisions of this new system will be the complete adoption of West Germany's social security system: retirement benefits for East Germans, to be paid in deutsche marks, would be raised quickly to West German levels (at the pre-November 1989 market exchange rate of 5:1 they had been about 1/15 of those in the West). The current East German wages would be converted 1:1 into deutsche marks (which would lift them to about 1/2 of West German rates, and to roughly the same height as West Germany's average unemployment subsidies, as compared with a market value of about 1/10). In addition, East Germany would immediately introduce the West German unemployment 'insurance' system; and West Germany's highly centralized labor union organization and collective bargaining would take hold in East Germany. Further, rents would be converted 1:1; and at least 'temporarily', severe rent controls would remain in effect. All debts, denominated now in deutsche marks, would be cut in half. Lastly, but unsurprisingly already seen as of the highest priority, in order to finance current and future government expenditures the East German government would adopt West Germany's tax structure and, no longer in control of the money printing press, would immediately begin establishing an 'effective' decentralized tax collection system, assisted by its West German counterpart and the expertise of its *Finanzämter* (equivalent to the United States Internal Revenue System).

Naturally, the political power elite responsible for this reunification program has expressed little doubt about its success. Indeed, some of its representatives such as Chancellor Helmut Kohl and Otto Lambsdorff, head of West Germany's Free Democratic Party, have gone on record saying that it would "cost West Germany nothing." However, economic logic dictates otherwise and predicts rather disappointing results.[28]

To be sure, due to the partial re-privatization of East Germany and the lifting of most price controls, East Germany's economic performance would quickly improve over its present desperate showing. Yet the recovery process will not only be slower and much more painful than need be, it will soon be replaced by economic stagnation; and likewise, due to the relatively larger size of the government sector in the united Germany as compared to its present size in West Germany, stagnation tendencies will be strengthened within the already listless West German economy.

The full inclusion of East Germans into the West German

social security system is bound to lead to increased social security taxes. Every restriction imposed on West German buyers of East German assets will also harm East Germans by not permitting them to sell to the highest bidder and will hamper the speedy transfer of assets into the most value-productive hands. Similarly, the preferential treatment accorded established West German companies will prevent the quickest breakup of the mostly oversized East German production units into efficient firms and contribute from the outset to the cartelization of East Germany's new economy. Rent controls will largely halt the reconstruction of East Germany's rental housing market from its shambled state and will lead to large-scale public housing projects (*sozialer Wohnungsbau*) and even higher taxes. However, worst of all for East Germany's economic recovery will be the combined policies of minimum wage guarantees and unemployment subsidies. For one thing, these policies will not stop the population outflow from East to the West with its higher wages and unemployment subsidies[29]; and with downwardly inflexible wage rates also in West Germany the continuing migration is bound to further aggravate West Germany's already recalcitrant unemployment problem. On the other hand, even at the present East mark-wage-rates the East German economy is largely uncompetitive in world markets. By actually fixing wage rates several times higher—by requiring nominally identical deutsche mark-wage-payments—the East German labor force will be priced out of the market to an even greater extent. The 'normal' flow of capital from high to low wage areas will be drastically reduced and massive—and with unemployment insurance—lasting unemployment will result. In order to finance East Germany's large-scale unemployment, steady massive transfer payments will be required from West to East, but also from East Germany's productive sector to its unproductive one. Once again, taxes and/or paper money creation will have to be substantially increased. Whatever new productive energies were set free by East Germany's partial privatization will immediately be stifled, and within an environment of rising unemployment figures and economic stagnation nationalistic sentiments, already on the rise, will receive another boost.[30]

While the course has largely been set and German reunification has proceeded through the incorporation of East Germany into the West German welfare state, an alternative existed which would have spared the Germans the economic frustrations inevitably associated with the current planned course

of reunification.

Unfortunately, this radical alternative—the uncompromising privatization of East Germany, the adoption of a private-property constitution, and reunification through a policy of complete, unilateral free trade—has so far found practically no audience. Almost all alternatives proposed are variations of the same welfare-statist theme: either somewhat more drastic (i.e., more redistributionist), advocated mostly by Eastern economic 'experts', or somewhat more moderate, as advanced mostly by the economics establishment of West Germany. Nor does there appear to be any suspicion among the German public regarding this happy uniformity of expert opinion. Is it not curious that even in 'liberal' West Germany the instruments of opinion molding are largely in governmental hands? There are practically no private schools or universities; radio and television are mostly state-owned or, in the case of a few exceptions allowed since the mid-1980s, subject to strict governmental licensing requirements; and there are almost no independent, private free-market think-tanks or foundations. Moreover, why should the West German power elite and the economic establishment on its payroll actually have the same interests as the German public? Indeed, is it not much more realistic to assume, as the Austrian school of economics long ago explained[31] and the public choice school has reiterated more recently,[32] that government officials and their intellectual bodyguards, like everyone else, pursue their own narrow self-interest rather than promoting the so-called public good? And is it not rather obvious that the interest of the West German government and its Eastern affiliate is the expansion of its own power: of tax revenue and governmentally controlled assets. The presently unfolding reunification process promotes precisely *this* goal and is indeed bound to lead to Germany's becoming Europe's foremost political power: and that what might appear as an ill-conceived strategy from the point of view of the German public, then, is actually the successful accomplishment of the German government's own different, even antagonistic interests?[33]

The German public today is too authoritarian minded to ask any such questions seriously. Much learning the hard way will be required, and much damage done, before the radical privatization alternative is to receive its chance, if ever it does. Only then may the German public begin to realize that the complete neglect of this option among the presently discussed reunification strategies may not be an accident, but have a

systematic explanation.

The solution of the present crisis must begin with the recognition that while it may not be the East Germans' fault that they are as bad off as they are, it is also not the fault of the West Germans. As a matter of fact, the millions of people who left East Germany for the West, in many cases risking their lives, actively contributed to the undermining of the East German regime and in any case demonstrated *correct* entrepreneurial judgment, whereas millions of East Germans collaborated with the regime—socialist party membership was above 2 million, or some 15 percent of the population, and many more willingly participated by looting the property left behind by emigrants. Even those who did not do so obviously displayed *poor* entrepreneurial foresight. To compel the West German populace to give wholesale financial support to East Germans, then, not only constitutes a moral outrage, but is a counterproductive measure as well. Justice and economics require instead that East Germany solve its problems alone, without anything but voluntary West German assistance. Accordingly, any form of compulsory redistribution should be rejected outright. There should be no currency reform of the sort already inaugurated, but exchange at market rates[34]; and likewise, there should be no incorporation, but a decidedly *separatist* reunification course chosen.

Since the ultimate cause of East Germany's economic misery is the collective ownership of factors of production, the solution and key to a prosperous future is privatization. Yet how can socialized property be privatized justly?[35] There is a second moral observation at the beginning of the answer to this question. The former East German government was, and is by now largely recognized by the East German population as a criminal organization, guilty of murder, robbery and, in erecting an impenetrable wall around the country responsible for the enslavement of an entire people. Not only should those directly responsible for these activities be prosecuted far beyond the current timid attempts in this direction, but all government property, ill-begotten from the very start, should be forfeited. The new government, even if freely elected, cannot be considered the owner of any property, for a criminal's heir, even if himself innocent of any crimes, does not become the legitimate owner of illegitimately acquired assets. On account of his personal innocence he remains exempt from prosecution; but all of his 'inherited' gains must immediately revert to the original victims, and their repossession of government property must take

place without their being required to pay anything. In fact, to charge a victimized population a price for the reacquisition of what was originally its own would itself be a crime and once and forever take away any innocence the new East German government previously might have had.

More specifically, all original property titles should be immediately recognized, regardless of whether they are presently held by East or West Germans. Insofar as the claims of original private owners or their heirs clash with those of the current asset users, the former should in principle override the latter. Only if a current user can prove that an original owner-heir's claim is illegitimate, i.e., that the title to the property in question had been acquired initially by coercive or fraudulent means, should a user's claim prevail and should he be recognized as owner.[36] In the case of East Germany—in contrast to that of the Soviet Union, for instance,—where the policy of expropriation started only some 40 years ago, where most land registers have been preserved, and where the practice of government authorized murder, of private-property owners was relatively 'moderate', this measure would quickly result in the reprivatization of most, though by no means all, of East Germany. Regarding governmentally controlled resources that are not reclaimed in . this way, syndicalist ideas should be implemented. Assets should become owned immediately by those who use them—the farmland by the farmers, the factories by the workers; the streets by the street workers, the schools by the teachers, the bureaus by the bureaucrats (insofar as they are not subject to criminal prosecution), and so on.[37] To break up the mostly over-sized East German production conglomerates, the syndicalist principle should be applied to those production units in which a given individual's work is actually performed, i.e., to individual office buildings, schools, streets or blocks of streets, factories and farms. Unlike syndicalism, yet of the utmost, importance, the so acquired individual property shares should be freely tradeable and a stock market established, so as to allow a separation of the functions of owner-capitalists and non-owning employees, and the smooth and continuous transfer of assets from less into more value-productive hands.[38]

Two problems are connected with this privatization strategy. For one thing, what is to be done in the case of newly erected structures—which according to the proposed scheme would be owned by their current productive users—built on land that is to revert to a different original owner? While it may appear

straightforward enough to award each current producer with an equal property share, how many shares should go to the land owner? Structures and land cannot be physically separated. In terms of economic theory, they are absolutely specific complementary production factors whose relative contribution to their joint value product cannot be disentangled. In these cases there is no alternative but to bargain.[39] Yet this—contrary to the first impression that it might lead to permanent, unresolvable conflict—should hardly cause many headaches. For invariably there are only two parties and strictly limited resources involved in any such dispute. Moreover, to find a quick, mutually agreeable compromise is in both parties' interest, and if either party possesses a weaker bargaining position it is clearly the landowner (because he cannot sell the land without the structure owners' consent while they could dismantle the structure without needing the landowner's permission).

Secondly, the syndicalist privatization strategy implies that producers in capital intensive industries would have a relative advantage as compared to those in labor intensive industries. For the value of the property shares received by the former would exceed the wealth awarded to the latter, and this unequal distribution of wealth would require justification, or so it seems. In fact, such justification is readily available. Contrary to widespread 'liberal' myths, there is nothing ethically wrong with inequality.[40] Indeed, the problem of privatizing formerly socialized property is almost perfectly analogous to that of establishing private property in a *state of nature*, i.e., when resources previously had been unowned. In this situation, according to the central Lockean idea of natural rights which coincides with most people's natural sense of justice, private property is established through acts of homesteading: by mixing one's labor with nature-given resources before anyone else has done so[41]; and insofar as any differences between the quality of nature-given resources exist, as is surely the case, the outcome generated by the homesteading ethic is inequality rather than equality.[42] The syndicalist privatization approach is merely the application of this homesteading principle to slightly changed circumstances. The socialized factors of production are already homesteaded by particular individuals. Only their property right regarding particular production factors has so far been ignored, and all that would occur under the proposed scheme is that this unjustifiable situation would finally be rectified. If such rectification results in inequalities, this is no more unfair than

the inequalities that would emerge under a regime of original, unadulterated homesteading.[43]

Moreover, our syndicalist proposal is economically more efficient than the only conceivable privatization alternative in line with the basic requirement of justice (that the government does not legitimately own the socialized economy and hence its selling or auctioning it off should be out of the question). According to the latter alternative, the entire population would receive equal shares in all of the country's assets not reclaimed by an original, expropriated owner. Aside from the questionable moral quality of this policy,[44] it would be extremely inefficient. For one thing, in order for such countrywide distributed shares to become tradeable property titles, they must specify to which particular resource they refer. Hence, to implement this proposal, first a complete inventory of all of the country's assets would be required, or at least an inventory of all its distinctively separable production units. Secondly, even if such an inventory were finally assembled, the owners would consist by and large of individuals who knew next to nothing about the assets they owned. In contrast, under the non-egalitarian syndicalist privatization scheme no inventory is necessary. Furthermore, initial ownership comes to rest exclusively with individuals who, because of their productive involvement with the assets owned by them, are by and large best informed to make a first realistic appraisal of such assets.

In conjunction with the privatization of all of East Germany according to the principles outlined, the current East German government should adopt a private property constitution and declare it the immutable basic law for the entire East German territory. This constitution should be extremely brief and lay down the following principles in terms as unambiguous as possible: Every person, apart from being the sole owner of his physical body, has the right to employ his private property in any way he sees fit so long as in so doing he does not uninvitedly change the physical integrity of another person's body or property. All interpersonal exchanges and all exchanges of property titles between private owners are to be voluntary (contractual). These rights of a person are absolute. Any person's infringement on them is subject to lawful prosecution by the victim of this infringement or his agent, and is actionable in accordance with the principles of the proportionality of punishment and of strict liability.[45]

As implied by this constitution, then, all existing wage and

price controls, all property regulations and licensing requirements, and all import and export restrictions should be immediately abolished and complete freedom of contract, occupation, trade and migration introduced. Subsequently, the East German government, now propertyless, should declare its own continued existence unconstitutional—insofar as it would have to rest on non-contractual property acquisitions, that is, taxation—and abdicate.[46]

The result of this complete abolition of socialism and the establishment of a pure private-property society—an anarchy of private-property owners, regulated exclusively by private-property law—would be the quickest economic recovery of East Germany. From the outset, East Germany's population would, by and large, be made amazingly rich. For while the East German economy is in shambles, the country is not destroyed. High real-estate values exist, and in spite of all capital consumption of the past there are still massive amounts of capital goods in East Germany. With no government sector left and the entire national wealth in private hands, East Germans could soon become the envied objects of their West German counterparts.[47]

Moreover, with factors of production released from political control and handed over to private individuals who are allowed to use them as they see fit—independent of whatever anyone else may want—provided only that they do not physically damage the resources owned by others, the ultimate stimulus for future production is provided. With an unrestricted market for capital goods, rational cost-accounting is made possible. With profits as well as losses individualized, and reflected in an owner's capital- and sales-account, every single producer's incentive to increase the quantity and/or quality of his output and to avoid any over- or under-utilization of his capital is maximized. In particular, the constitutional provision that only the physical integrity of property (not property values) be protected guarantees that every owner will undertake the greatest value-productive efforts —efforts to promote favorable changes in property values and to prevent and counter any unfavorable ones (as might result from another person's actions regarding his property).

Specifically, the abolishment of all price controls would almost instantaneously eliminate all present shortages; and output would immediately begin to increase, quantitatively as well as qualitatively. Temporarily, unemployment would drastically increase, as it did in West Germany after World War II. Yet with flexible wage rates, no collective bargaining, and no

unemployment subsidies it would quickly begin to disappear again. Initially, average wage rates would remain substantially below West German rates. But this, too, would soon begin to change. Lured by comparatively low wages, by the fact that East Germans will expectedly show a great need for cashing in (liquidating) their newly acquired capital assets so as to finance their current consumption, and above all by the fact that East Germany would be a no-tax, free-trade haven, large numbers of investors and huge amounts of capital, in particular from wealthy neighboring West Germany, would immediately begin to flow in.

The production of security—of police protection and of a judicial system—which is usually (without argument) assumed to lie outside the province of free markets and be the proper function of government, would most likely be taken over by the major West German insurance companies.[48] Providing insurance for personal property, police-action—the prevention and detection of crime as well as the exaction of compensation—is in fact part of this industry's natural business (if it were not for governments preventing it from doing so and arrogating this task to itself, with all the usual and familiar inefficiencies resulting from such a monopolization). Likewise, being already in the business of arbitrating conflicts between claimants of competing insurers, they would naturally assume the function of a judicial system.[49]

Yet more important than the entrance of big business, such as insurance companies in the field of security production, would be the influx of large numbers of small entrepreneurs from West Germany. Facing not only a heavy load of taxation in the West but being stifled there by countless regulations (licensing requirements, labor protection laws, mandated working and shop-opening hours), an unregulated East German private-property economy would present an almost irresistible attraction. The large-scale import of entrepreneurial talent and capital would soon begin to raise real wage rates in East Germany, stimulate internal savings, and lead to a rapidly accelerating process of capital accumulation. Rather than people leaving the East, migration would quickly take place in the opposite direction, with increasing numbers of West Germans abandoning welfare socialism for the unlimited opportunities offered in the East. Finally, faced with increasing losses of productive individuals, which would put even more pressure on West Germany's welfare budgets, the West German power elite would

be forced to do what it presently is trying desperately to avoid with its own strategy of reunification through incorporation: to begin to de-socialize West Germany as well.

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[1] For details see Gustav Stolper, *German Realities* (New York: Reynal & Hitchcock, 1948); Frank Grube and Gerhard Richter, *Die Schwarzmarktzeit: Deutschland zwischen 1945 und 1948* (Hamburg, 1979); Theodor Eschenburg, *Jahre der Besatzung 1945–1949* (Stuttgart, 1983); Charles Kindleberger, *The German Economy, 1945–1947: Charles Kindleberger's Letters from the Field* (Westport, Conn.: Meckler, 1989) with a historical introduction by Günther Bischof.

[2] On the phenomenon of repressed inflation see Wilhelm Röpke, *Die Lehre von der Wirtschaft* (Bern, 1979), pp. 142–45; idem, "Repressed Inflation," *Kyklos* 1, no. 3 (1947); for a purely theoretical treatment of the phenomenon see Murray N. Rothbard, *Power and Market* (Kansas City: Sheed Andrews & McMeel, 1977), pp. 28–29.

[3] On the Cold War and the international dimensions of Germany's post World War II development see Paul Johnson, *Modern Times* (New York: Harper & Row, 1983), chaps. 13 and 17; Paul Kennedy, *The Rise and Fall of the Great Powers* (New York: Random House, 1987), chap. 7.

[4] See Ludwig Erhard, *Wohlstand für Alle* (Düsseldorf, 1957; updated edition 1990); idem, *Deutsche Wirtschaftspolitik* (Düsseldorf, 1967). Erhard's closest direct advisor was Alfred Müller-Armack, *Wirtschaftslenkung und Marktwirtschaft* (Hamburg, 1947). Walter Eucken's most influential works are *Die Grundlagen der Nationalökonomie* (Jena, 1940) and *Grundsätze der Wirtschaftspolitik* (Hamburg, 1959); for Franz Böhm see his *Reden und Schriften*, ed. E.S. Mestmäcker (Karlsruhe, 1960) and "Privatrechtsgesellschaft und Marktwirtschaft," *Ordo* 17 (1966). The annual *Ordo* is the main organ of the Freiburg School. Of similar influence were Wilhelm Röpke: *Die Lehre von der Wirtschaft* (Bern, 1979), *Die Gesellschaftskreis der Gegenwart* (Erlenbach-Zürich, 1948), *Jenseits von Angebot und Nachfrage* (Erlenbach-Zürich, 1957), and Alexander Rüstow: *Ortsbestimmung der Gegenwart*, 3 vols. (Erlenbach-Zürich: Eugen Rentsch, 1950,

1952 and 1957). The influence of Ludwig von Mises was mostly through his *Theory of Money and Credit*, H. E. Batson, trans. (1912; London: Jonathan Cape, 1934), *Nation, State, and Economy*, Leland B. Yeager, trans. (1919; New York: New York University Press,. 1983), *Socialism: An Economic and Sociological Analysis*, J. Kahane, trans. (1922; Indianapolis, Ind.: Liberty Fund, 1981), *Liberalism*, Ralph Raico, trans. (1927; Princeton, N.J.: D. Van Nostrand, 1962), and *Human Action: A Treatise on Economics*, 3rd ed. (1949; Chicago: Henry Regnery, 1966). On the relationship between these and other strands of free market thought see Friedrich A. Hayek, *Studies in Philosophy, Politics and Economics* (Chicago: University of Chicago Press, 1957), chap. 13.

[5] On this see p. 87 ff below.

[6] The leading American economic advisors, for instance, were the "new-dealers" and free-market foes Charles P. Kindleberger, John K. Galbraith, and Walt W. Rostow. Indicative of the German public opinion is the fact that even the newly founded conservative Christian Democratic Union, in its Ahlen Program of 1947, stated that "the capitalist economic system has not done justice to the vital interests of the German people in state and in society" and accordingly demanded large-scale socialization policies.

[7] The U.S. high commissioner, General Lucius D. Clay, reacted to Erhard's liberalization plans by saying: "My advisors tell me they are much opposed to this." Erhard replied: "Never mind, General, mine are telling me the same thing."

[8] On the development of West Germany's economic system up to the mid-1960s see the generally excellent study by Hans-Joachim Arndt, *West Germany: Politics of Non-Planning* (Syracuse: Syracuse University Press, 1966).

[9] For comparative economic analyses of East and West Germany see H. Winckel, *Die Wirtschaft im geteilten Deutschland 1945–1970* (Wiesbaden, 1974); Karl Thalheim, *Die wirtschaftliche Entwicklung der beiden Staaten in Deutschland* (Opladen, 1978); E. Jesse, ed., *BRD und DDR* (Berlin, 1982); Hannelore Hamel, ed., *Bundesrepublik Deutschland-DDR: Die Wirtschaftssysteme* (Munich, 1983); also: E. Windmöller and T. Höpker, *Leben in der DDR* (Hamburg, 1976).

[10] German Democratic Republic constitution, para. 9, sect. 3.

[11] Interestingly, the speed of East German socialization was significantly *slower* than in all the other Soviet-licensed

states of Eastern and Central Europe except for Poland, where agriculture remained largely in private hands. See Jürgen Hartmann, *Politik und Gesellschaft in Osteuropa* (Frankfurt/M., 1983), p. 169.

[12] The first English translation appeared in 1936 under the title *Socialism: An Economic and Sociological Analysis*. The latest edition was published in 1981 by Liberty Fund. See also Mises's *Human Action*, chaps. 25 and 26, in which he provides a definitive answer to criticisms of his earlier work.

[13] See also Hans-Hermann Hoppe, *A Theory of Socialism and Capitalism: Economics, Politics, and Ethics* (Boston: Kluwer Academic Publishers, 1989); idem, "Why Socialism Must Fail," in Llewellyn H. Rockwell, ed., *The Free Market Reader* (Burlingame, Calif.: Ludwig von Mises Institute, 1988).

[14] See Ludwig Erhard, *Wohlstand für Alle*.

[15] It is interesting to note how American comparative economic systems textbooks have treated the case of East versus West Germany. Apart from ignoring migration statistics and not mentioning the "Wall" at all, or merely in passing, they rely almost exclusively on official government statistics. Based on these they reach conclusions which can only be called perverse, and illustrate at best that economic statistics have very little to do with reality as perceived by acting individuals. The most scandalous example of this is Andrew Zimbalist, Howard J. Sherman and S. Brown, *Comparing Economic Systems* (New York: Harcourt Brace Jovanovich, 1989). After mentioning that from the outset East Germany was relatively disadvantaged by having to pay heavy reparations and because of massive population losses (but why did it lose its population?) they write: "During the 1950s, the economy of West Germany grew at a rate close to 7 percent while—in spite of its initial disadvantages—the growth rate for the East German economy was around 6.5 percent. On a GNP per capita basis, between 1960 and 1979 West Germany grew at 3.3 percent per year and East Germany grew at 4.7 percent. In West Germany real GNP grew by 1.8 percent in 1980 and fell by 0.3 percent in 1981; in East Germany, real national income grew by 4.2 percent in 1980 and increased by 4.5 percent in 1981. Thus, according to CIA estimates. . . . East German per capita income had risen to 87.6 percent of West German per capita income. The gap continued to narrow during 1982 and the first half of 1983. The conclusion appears uncontestable that over the entire post-war period East Germany has experienced more rapid growth per head than West

Germany" (p. 468). Further, there was "a stronger *dynamic* efficiency in East Germany. . . . in West Germany the average annual increase in total factor productivity was 3.0 percent, and in East Germany it was 3.4 percent." Moreover, "East Germany has had greater economic stability [i.e. 'absence of excessive inflation and unemployment'] throughout the post-War period" (p. 469). In addition, while the "environmental quality is superior in West Germany," East Germany has less than half of the former's income inequality and "in all areas of life [East German] women have achieved a much higher degree of equality with men than have their counterparts in West Germany" (p. 470).

After reading this one must surely wonder why people did not move from West to East, and why an economic success story such as East Germany's ended with its total collapse! But the authors have an answer to this: "Finally, although we have been concerned only with economic performance, it is difficult to overlook the more desirable democratic political system in West Germany" (p. 470). Not much better is the analysis by P. R. Gregory and G. C. Stuart, *Comparative Economic Systems* (Boston: Houghton Mifflin, 1985), pp. 402–14. Largely irrelevant is also the earlier study by Wolfgang F. Stolper, *The Structure of the East German Economy* (Cambridge: Harvard University Press, 1960).

[16] See also Hans-Joachim Arndt, *West Germany: Politics of Non-Planning*, chap. 3.

[17] The supporters of "the German 'soziale Marktwirtschaft'," writes Mises, "stress that they consider the market economy to be the best possible and most desirable system of society's economic organization, and that they are opposed to the government omnipotence of socialism. But, of course, all these advocates of a middle-of-the-road policy emphasize with the same vigor that they reject Manchesterism and laissez-faire liberalism. It is necessary, they say, that the state interfere with the market phenomena whenever and wherever the 'free play of the economic forces' results in conditions that appear as 'socially' undesirable. In making this assertion they take it for granted that it is the government that is called upon to determine in every single case whether or not a definite economic fact is to be considered as reprehensible from the 'social' point of view and, consequently whether or not the state of the market requires a special act of government interference."

"All these champions of interventionism fail to realize that

their program thus implies the establishment of full government supremacy in all economic matters and ultimately brings about a state of affairs that does not differ from what is called the German or the Hindenburg pattern of socialism. If it is in the jurisdiction of the government to decide whether or not definite conditions of the economy justify its intervention, no sphere of operation is left to the market. Then it is no longer the consumers who ultimately determine what should be produced, in what quantity, of what quality, by whom, where, and how—but it is the government. For as soon as the outcome brought about by the operation of the unhampered market differs from what the authorities consider 'socially' desirable, the government interferes. That means the market is free as long as it does precisely what the government wants it to do. It is 'free' to do what the authorities consider to be the 'right' things, but not to do what they consider the 'wrong' things; the decision concerning what is right and what is wrong rests with the government. Thus the doctrine and the practice of interventionism ultimately tend to abandon what originally distinguished them from outright socialism and to adopt entirely the principles of totalitarian all-round planning" (*Human Action: A Treatise on Economics*, pp. 723–24).

[18] While the Freiburg School, and in particular Röpke, recognize that in practice monopolies are almost always the creation of state power (see Wilhelm Röpke, *Die Lehre von der Wirtschaft*, p. 215; for a typical Freiburg treatment see Erich Hoppmann, *Fusionskontrolle* [Tübingen, 1972]), they admit (in agreement with neo-classic orthodoxy) the theoretical possibility of exploitative free-market monopolies and advocate a kind of compulsory anti-merger, and allegedly pro-small business legislation to combat their emergence. For a theoretical critique of the neo-classic monopoly theory and a defense of the classic view that monopolies can only exist if and insofar as free entry is restricted by legal compulsion, and that under conditions of free entry no operationally meaningful distinction between competitive vs. monopoly prices and/or output is possible, see Murray N. Rothbard, *Man, Economy, and State: A Treatise on Economic Principles* (Los Angeles: Nash Publishing, 1970), chap. 10; also Hans-Hermann Hoppe, *Eigentum, Anarchie und Staat. Studien zur Theorie des Kapitalismus* (Opladen, 1987), pp. 129–41; idem, *A Theory of Socialism and Capitalism*, chap. 9.

[19] See R. Merklein, *Griffin die eigene Tasche: Hintergeht der Bonner Sozialstaat seine Bürger?* (Hamburg, 1980); idem, *Die*

Deutschen werden ärmer. Staatsverschuldung, Geldentwertung, Markteinbussen, Arbeitsplatzverluste (Hamburg, 1982).

[20] On the theory of the business cycle see Ludwig von Mises, "Monetary Stabilization and Cyclical Policy," in *On the Manipulation of Money and Credit*, Percy L. Greaves, ed. (1928; Dobbs Ferry, N.Y.: Free Market Books, 1978); Friedrich A. Hayek, *Prices and Production* (1931; London: Routledge & Sons, 1935); Richard von Strigl, *Kapital und Produktion* (Vienna, 1934); Murray N. Rothbard, *America's Great Depression* (Kansas City: Sheed & Ward, 1975).

[21] In fact the lack of democracy has essentially nothing to do with East Germany's plight. It is obviously not the selection principle for politicians that causes the problem. It is politics and political decision-making as such that are responsible. Collectively owned factors of production require collective decision-making. Instead of each producer deciding independently what to do with particular resources as under a regime of private property and contractualism, with socialized means of production each decision requires a collective's permission. It is irrelevant to the producer how those giving permission are chosen. What matters to him is that permission has to be sought at all. As long as this is the case, the incentive for producers to produce is reduced and impoverishment will continue. Privatization is as incompatible with democracy, then, as it is with any other form of political rule. Privatizing means to de-politicize society and to establish, in Marx's terms, an anarchy of production, in which no one rules anybody, and all producers' relations are voluntary and thus mutually beneficial.

[22] The elections on October 14, 1990, in East Germany's reconstituted 5 federated states, and on December 2, 1990, in the meanwhile reunited Germany, confirmed these results and added even more strength to the ruling conservative-liberal government coalition. The national-conservative Republicans were reduced to insignificance; and the Green Party did not manage to return to the Federal Parliament (Bundestag). The PDS experienced further voter losses and, although currently represented in the Bundestag due to a provisionary suspension of the 5 percent hurdle for 'genuine' East German parties during the December election, it is bound ultimately to disappear as a political power.

Indicative of the West German power elite's political 'imperialism' is the fact that almost all of the three major parties' (CDU, FDP, and SPD) leading candidates in East Germany's October state election were 'imported' from West Germany.

[23] The formal reunification took place only three months later, on October 3, and was 'democratically ratified' in the first all-German election of December 2, 1990.

[24] For a detailed analysis of the currency reform see P. Bofinger, "The Germany Monetary Unification: Converting Marks to D-Marks," *Federal Reserve Bank of St. Louis Review* (July/ August 1990).

[25] For this purpose a trust fund corporation (Treuhandanstalt) directed by West German establishment 'managers' was set up.

[26] In fact, the West and East German governments agreed in their reunification treaty of October 3, that all expropriations prior to the founding of the East German state in 1949 were to be regarded as "valid" (more than 50 percent of East Germany's land used for agriculture had been forcibly socialized before this date). This provision is currently being challenged in the government's court system.

[27] After one year of de-socialization a mere 700 out of 9,000 East German 'production units' had been privatized.

[28] In fact, by early 1991, higher gasoline taxes, a 2.5 percent increase in the unemployment 'insurance' tax, and a 'temporary' 7.5 percent increase of the income tax had been introduced,, and various other 'revenue enhancement' schemes had come under official consideration (including a road user fee, and a price increase for governmentally provided and monopolized telephone services). The money supply (M3) had been increased at an annual rate of 6 percent (as compared to 1 percent in the United States). Government debt *increases* rose from 20 billion deutsche marks in 1990 to an officially (under-)estimated 140 billion for 1991, to a total of some 900 billion, requiring nearly 10 percent of the Federal government's budget for interest payments (with an anticipated further increase to 17 percent by 1994). Due to increased government borrowing, the interest rate rose by about 1 percent (as compared to a 1 percent drop in the United States during the same period) and accordingly, private investment was 'crowded out.' In addition, some 10,000 new tenured government jobs (*Beamte*) had been 'created' in West Germany, so as to teach East Germany 'bureaucratic efficiency.'

[29] Since the currency unification and the incorporation of East by West Germany the number of emigrants has expectedly fallen (from above 2,000 per day). However, up to this day emigration from East to West continues at a rate of more than

500 per day.

[30] By the end of 1990, the unemployment rate in East Germany had risen to about 25 percent (2.5 million); and increasing animosity among East Germans toward their own foreign 'guest workers' had become a widespread phenomenon.

[31] See Ludwig von Mises, *Bureaucracy* (New Haven: Yale University Press, 1944).

[32] See James M. Buchanan, *What Should Economists Do?* (Indianapolis, Ind.: Liberty Fund, 1979); Gordon Tullock, *The Politics of Bureaucracy* (Washington, D.C.: Public Affairs Press, 1965).

[33] On the theory of the state see Franz Oppenheimer (one of Ludwig Erhard's teachers), *System der Soziologie, Vol. 2: Der Staat* (Stuttgart, 1964); Albert J. Nock, *Our Enemy the State* (Delevan: Hallberg Publishing, 1983); Murray N. Rothbard, *For A New Liberty*, (New York: Macmillan, 1978); idem, *The Ethics of Liberty* (Atlantic Highlands: Humanities Press, 1982); Hans-Hermann Hoppe, *Eigentum, Anarchie und Staat*; idem, *A Theory of Socialism and Capitalism*; Anthony de Jasay, *The State* (Oxford: Blackwell, 1985).

[34] Temporarily—until the East Germans were willing to adopt a still better *commodity* money such as gold, for instance—this would lead to the rapid replacement of the *bad* East mark by the *good* deutsche mark, to deflationary pressure put on deutsche mark prices, and to the welcome lowering of East German import prices.

[35] While a vast body of literature dealing with the socialization of private property exists, hardly anything has been written on how to de-socialize. Most likely, one would suspect, because of most Western intellectuals' explicit or implicit socialist predilections, which preclude any treatment of this problem as simply irrelevant. For why should anyone ever want to go back from an allegedly *higher stage of social evolution*, i.e., socialism, to a lower one, i.e., capitalism? As one of the few exceptions see Murray N. Rothbard, "How To Desocialize?," *Free Market*, vol. 7 (Auburn, Ala.: The Ludwig von Mises Institute, September 1989).

[36] In those cases in which current users actually bought expropriated assets from the government, they should seek compensation from those responsible for this sale of loot, and the government officials accountable, for it should be compelled to repay the purchase price, if necessary through forced labor.

[37] On the economics and ethics of privatization see

Murray N. Rothbard, *For A New Liberty*; for the privatization of streets in particular Walter Block, "Free Market Transportation: Denationalizing the Roads," *Journal of Libertarian Studies* (1979); idem, "Public Goods and Externalities: The Case of Roads," *Journal of Libertarian Studies* (1983).

[38] For an economic analysis of syndicalism see Ludwig von Mises, *Socialism*, chap. 16, sec. 4.

[39] On the economic theory of bargaining see Ludwig von Mises, *Human Action*, pp. 338–39; and Murray Rothbard, *Man, Economy, and State*, pp. 308–12.

[40] See Murray N. Rothbard, *Egalitarianism* As *A Revolt Against Nature and other Essays*, (Washington, D.C.: Libertarian Review Press, 1974); also: Robert Nozick, *Anarchy, State, and Utopia* (New York: Basic Books, 1974), chap. 8; Helmut Schoeck, *Der Neid. Eine Theorie der Gesellschaft* (Munich, 1966); idem, *Das Recht auf Ungleichheit* (Munich, 1979); Erik von Kuehnelt-Leddhin, *Freiheit oder Gleichheit* (Salzburg, 1953).

[41] See John Locke, *Two Treatises of Government*, Peter Laslett, ed. (Cambridge: Cambridge University Press, 1960), pp. 305–07.

[42] For an attempt to justify an *egalitarian* homesteading ethic see H. Steiner, "The Natural Right to the Means of Production," *Philosophical Quarterly* 27 (1977); for a refutation of this theory as inconsistent see Jeffrey Paul, "Historical Entitlement and the Right to Natural Resources," in Walter Block and Llewellyn H. Rockwell, eds., *Man, Economy, and Liberty: Essays in Honor of Murray N. Rothbard* (Auburn, Ala.: The Ludwig von Mises Institute, 1988); Fred D. Miller, "The Natural Right to Private Property," in Tibor R. Machan, ed., *The Libertarian Reader* (Totowa: Rowman & Littlefield, 1982).

[43] For the most consistent and complete Lockean property rights theory see Murray Rothbard, *The Ethics of Liberty*, idem, "Law, Property Rights, and Air Pollution," *Cato Journal* 2, no. 1 (Spring 1982); for a theoretical justification of the homesteading principle in particular, as the indisputable, axiomatic foundation of ethics see Hans-Hermann Hoppe, *Eigentum, Anarchie und Staat*, chap. 4; idem, *A Theory of Socialism and Capitalism*, chaps. 2 and 7; idem, "From the Economics of Laissez Faire to the Ethics of Libertarianism," in Walter Block and Llewellyn H. Rockwell, eds., *Man, Economy, and Liberty*, idem, "The Justice of Economic Efficiency," *Austrian Economics Newsletter* 9, no. 2 (Winter 1988).

[44] How can one justify that ownership of productive assets should be assigned without considering a given individual's

actions or inactions in relation to the owned asset? More specifically, how can it be justified, for instance, that someone who has contributed literally nothing to the existence or maintenance of a particular asset—and who might not even know that any such asset exists—should own it in the same way as someone else who actively, objectifiably contributed to its existence or maintenance?

[45] On the proportionality principle of punishment see Murray Rothbard, *The Ethics of Liberty*, chap. 13; Hans-Hermann Hoppe, *Eigentum, Anarchie und Staat*, pp. 106–28; on the principle of strict liability also Richard A. Epstein, "A Theory of Strict Liability," *Journal of Legal Studies* 2 (January 1973); idem, "Medical Malpractice: The Case for Contract," *Center for Libertarian Studies: Occasional Paper Series*, no.9 (Burlingame, 1979); Judith J. Thomson, *Rights, Restitution, and Risk* (Cambridge: Harvard University Press, 1986), esp. chaps. 12 ("Remarks on Causation and Liability") and 13 ("Liability and Individualized Evidence").

[46] On the ethics and economics of state-less societies see Murray N. Rothbard, "Society Without a State," in J. Roland Pennock and John W. Chapman, eds., *Anarchism (Nomos 19)* (New York: New York University Press, 1978); Bruce Benson, *The Law, The Legal System and The State* (San Francisco: Pacific Institute, 1991).

[47] National wealth statistics are notoriously problematic. However, for illustrative purposes it might be worthwhile to point out that estimates of East Germany's national wealth range from 30 to 800 trillion deutsche marks. Using the lowest estimate and adding to the East German population some 4 million West Germans reclaiming their Eastern property this would amount to per capita assets of about $900,000.

[48] On the economics of competitive, private security production see Gustave de Molinari, "The Production of Security," *Center for Libertarian Studies: Occasional Paper Series*, no. 2 (Burlingame, Calif., 1977); Murray Rothbard, *Power and Market*, chap. 1; idem, *For A New Liberty*, chap. 12; Morris and Linda Tannehill, *The Market For Liberty* (New York: Laissez Faire Books, 1984); W. Wooldridge, *Uncle Sam the Monopoly Man* (New Rochelle: Arlington House, 1970); Bruno Leoni, *Freedom and the Law* (Princeton: Van Nostrand, 1972); Hans-Hermann Hoppe, "Fallacies of the Public Goods Theory and the Production of Security," *Journal of Libertarian Studies* 9, no. 1 (1989); Bruce Benson, *The Law, The Legal System and The State*.

[49] As regards national defense one should note that for the foreseeable future, this is not a problem for East Germany. West Germany would certainly not attack East Germany—public opinion would make this impossible. And insofar as the Soviet Union is concerned, it will continue to station troops on East German territory for the time being under *any* scenario. On the privatization of defense see Murray Rothbard, *For A New Liberty*, chap. 13; also, Jeffrey Rogers Hummel, "National Goods vs. Public Goods: Defense, Disarmament, and Free Riders," *Review of Austrian Economics* 4 (1990).

The Preferred Tax Type Comment on Herbener

Alexander Tabarrok

A standard theorem in neoclassical public finance holds that income taxes are preferred to equal revenue excise taxes.[1] Herbener (1988) rejects this theorem because the proof is (a) based upon methodologically suspect indifference curves and (b) must follow a certain conceptual ordering—namely the excise tax must first be placed upon consumers who are then given the option of facing an equal-revenue income tax and not vice versa. This comment demonstrates that indifference curves are not required to prove the theorem nor must the proof of the theorem follow a specific order.

It is an easy job to prove the theorem without using indifference curves, as has been done many times.[2] The proof requires only the idea of revealed (or demonstrated) preference. Consider figure 1: there are two goods, money (*M*) and a good *X*; *AA* represents the initial budget line, *AC* is the new budget line after an excise tax has been placed on good *X*.[3] Let us say that the consumer chooses the consumption bundle at point *D* which is on his budget constraint *AC*.[4] The budget constraint when an equal revenue income tax is imposed must pass through point *D* and is labelled *BB*. The consumer now has the option of staying at *D* (his most preferred position under the excise tax) or consuming anywhere along *BB*. If the consumer switches, this demonstrates his utility has increased and proves the theorem. We now show that the consumer will switch.

Consider line segment *BD*. The consumer had enough income to consume anywhere along *BD before* the income tax was introduced. In fact, the consumption bundles along line segment *AD* contain more of both types of goods than those along *BD* and the consumer could have chosen any of these bundles. By choosing not to consume along *AD* the consumer has demonstrated that he prefers bundle *D* to any other point along line segment *AD* and a *fortiori* line segment *BD*. Now compare line segment *DB* with *DC*. More of both types of goods are available to the consumer along line segment *DB* than *DC*. Since more of a good is preferred to less we can state with assurance

that the consumer will choose to change his consumption from *D* to a point somewhere along *DB* such as *F*.[5] The fact that the consumer voluntarily changes his consumption bundle demonstrates that his utility increases.

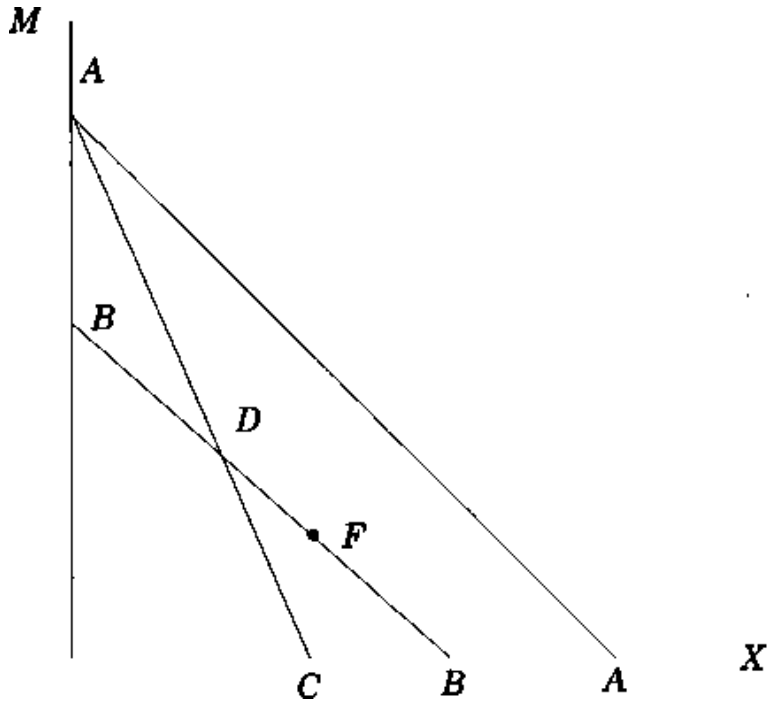

Figure 1.

It has now been shown that following the traditional sequence the preferred tax theorem can be proven without the concept of indifference. We have needed only the idea of revealed/demonstrated preference and the law that more is preferred to less.[6]

Herbener's second critique of the preferred tax theorem is that the proof requires a certain sequence of events: (1) the excise tax is placed on good *X*, (2) the amount of tax revenue is measured, (3) an equal-revenue income tax is levied. He argues that the sequence cannot begin with an income tax followed by an equal-revenue excise tax because the government does not know the preferences of individuals and therefore cannot compute the equal-revenue excise tax. According to Herbener the first scheme is the one that is presented "because only it allows the government to conduct the postulated experiment." But as Herbener himself notes, the neoclassical method (at least the part

required to prove the theorem) is axiomatic and deductive. The theorem is a conclusion of theory and not a description of how to conduct an experiment.[7]

For a theory to be correct it need not be experimentally testable. But it must have true premises and sound reasoning. The preferred tax theory is presented the way it is because this is the only method which guarantees that one of the implied premises is true. The implied premise which must be true for the theory to hold is that there exists an excise tax capable of generating revenue equal to that of an income tax. The sequence of the first proof guarantees that this premise is true because the excise tax is placed first followed by an equal-revenue income tax.[8] The alternate sequence, proposed by Herbener, cannot guarantee that this statement is true. No excise tax on toothpicks could raise the same amount of revenue as does the present income tax of the United States. This is the problem which the first sequence avoids.

If we make the implied premise explicit, then the proof follows as before. Referring to figure 1, *AA* is the original budget constraint, *BB* is the budget constraint after an income tax. Let us assume, so as not to clutter the diagram, that the consumer chooses bundle *F*. We now assume that an excise tax exists which raises revenue equal to that of the income tax. In general we do not know exactly how high this tax must be but this is irrelevant as far as the theory is concerned.[9] We do know by assumption that such a tax exists; assume that it is *AC*. If *AC* is the equal revenue excise tax then we know that the consumer must be consuming at point *D* (any other point along *AC* would raise too much or too little revenue). But point *D* was available to our consumer before the excise tax was imposed and he, chose not to consume at that point. His action demonstrated that he preferred to consume at point *F*. We therefore know that this consumer's utility has been unambiguously decreased by the switch from an income tax to an excise tax.

Concluding Comments

It has been shown without the use of indifference curves and using either sequence that an income tax is preferred to an equal-revenue excise tax. As Herbener notes, and is widely recognized, this type of analysis is only partial in nature. Taxes also have effects on the production side of the economy.

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[1] See Herbener’s note 8 for numerous references to different versions of this theorem.

[2] In fact, the originator of indifference curves and one of the earliest economists to prove the theorem, J. R. Hicks (1946, p. 41), uses a revealed preference approach.

[3] We are following the traditional ordering for this part of the proof. See below.

[4] The proof does not depend on where point *D* is so long as it is on the budget constraint *AC*. This is guaranteed by the praxeological law that more of a good is preferred to less.

[5] It is possible for the consumer to continue to prefer *D* to any other point along *DB* but this requires *X* to be a non-good at point *D*.

[6] Rothbard (1956) has criticized Samuelson’s (1948) concept of revealed preference because it assumes constancy of tastes through time. However, his critique was made in the context of Samuelson’s attempt to map out the “preference function.” No such attempt has been made here. The only constancy that is assumed is that the assumptions with which the analysis begins—in particular that money and *X* are both goods—remain true at the end of the analysis. This sort of constancy is required by any deductive theory.

[7] There is no reason it could not be both, but this is unimportant for present purposes.

[8] As a matter of logic, *ceteris paribus*, it must be true that an income tax can always raise as much money as an excise tax.

[9] The situation is equivalent to knowing that demand curves slope downward yet being unable to *a priori* predict by how much quantity demand increases when price falls by 10 percent.

Comment on Preferred Tax Type: Reply to Tabarrok

Jeffrey M. Herbener

I appreciate the opportunity to respond to the criticisms made by Alexander Tabarrok of my preferred-tax-type article since it provides a forum to clarify and elaborate on what is wrong with this neoclassical "theorem," as he calls it.

Before addressing the critique, I would like to make two historical clarifications. J. R. Hicks did not originate indifference curves as my critic claims (p. 107n). That "honor" goes to Francis Edgeworth, who gave a complete mathematical description of this technique in his *Mathematical Psychics*, published in 1881.[1] Vilfredo Pareto's extensive development and use of indifference-curve analysis also predates the work of Hicks in this area.[2] Hicks even gives credit to these two authors at various places in his *Value and Capital*.[3]

Second, I expended considerable effort at the beginning of the original article to establish the fact that I am an unabashed Misesian economist, and thus my major complaint against the neoclassical economists approach to the preferred-tax-type question is their failure to correctly employ the axiomatic-deductive method. Tabarrok seems to imply that my point about the government's inability to conduct the postulated experiment concerning equal tax revenues concerns the empirical problem of the testability of an hypothesis. But I wholeheartedly agree with him when he states, "For a theory to be correct it need not be experimentally testable. But it must have true premises and sound reasoning" (p. 109). The major argument of my original article was precisely that the neoclassical theory had false premises and unsound reasoning and was therefore false. The problem of conducting the experiment that I referred to was the *mental* experiment necessary to the praxeological method.[4]

Tabarrok makes two criticisms of my original article: indifference curves are not required to prove the "theorem" and the proof does not depend on a specific sequence. By dropping indifference curves, Tabarrok has dramatically changed the conditions of the analysis and thus, his criticisms do not affect my original results, derived assuming a well-behaved set of

indifference curves. This is not much consolation, however, if his assertion is true that indifference curves are not necessary for the proof. Let me demonstrate the difficulty of proving the "theorem" without them, or at least some additional restrictions on preferences beyond Tabarrok's "more is preferred to less" assumption.[5]

Consider figure 1, a reproduction of Tabarrok's figure 1. The individual begins by choosing point *A* with no taxation. Now the government imposes an excise tax on good *X*, *at some fixed rate per unit* (they do not fix the amount of the tax revenue, the individual's choice determines his tax payment), causing the budget constraint to rotate inward to M_0X_E. The individual chooses point *B* with an amount of tax extracted of M_0M_1. Now he is offered another opportunity; pay the same amount of tax and choose any combination along M_1X_1. Given the expanded range of choice, he can assuredly find a preferable point, say *C*. But note carefully, he prefers *C* to *B* because, by assumption, it is his most preferred point on his entire income tax budget line. From a tax-payment standpoint, when he compares *C* to a point along M_0X_E, say *D*, he prefers it *because it involves a lower* tax payment. It has nothing to do with comparing equal tax revenues extracted in two different forms. By construction, his choice is between a fixed income tax payment and a fixed excise tax rate. With the latter, point *B* is the only point on M_0X_E that extracts the same amount of tax, M_0M_1, as the income tax. With the excise tax option, the individual must stay at point *B, in order to pay the same tax*, while the income tax option he can select from various combinations of *M* and *X*. The individual's choice of the income tax is not based on his preference concerning tax types but on the fact that the analysis allows him no effective choice with the excise tax option.

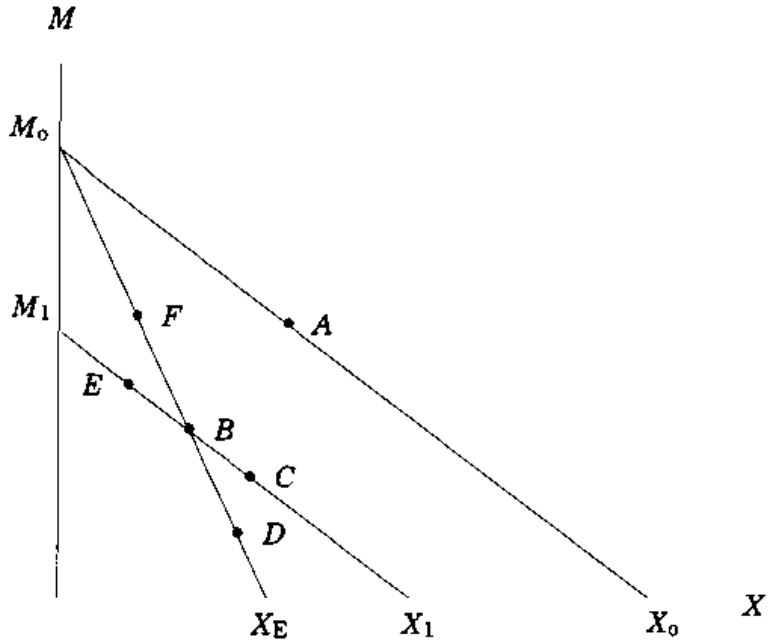

Figure 1.

Let me make this point from a different angle. What if his most preferred point on M_1X_1 was point *E?* With indifference curves this would be impossible but without them, or some added restriction beyond more is preferred to less, this can not be ruled out.[6] Then what he would prefer to do is move to some point on M_0B to the left of point *B*. He may prefer point *B* to any other point on M_0X_E, but he prefers, say, point *F*, to point *E because it involves a lower tax payment*. The analysis only allows the comparison of a fixed excise tax rate with a fixed income tax payment.[7] Equalizing tax payments forces the individual to consider only one combination of *M* and *X* with the excise tax against many such combinations with the income tax.

Only one way exists to make the two tax types render the same tax payment (while not eliminating the individual's choice under the excise tax): allow the individual to freely select the excise tax rate. (The original excise tax rate is arbitrary and no specific rate is necessary to extract a given sum of tax revenue; it depends on the individual's choice.) Otherwise, one is comparing a fixed excise tax rate with a fixed income tax payment, which, as I stated in the original article, is not the postulated question.[8] If the individual picks the excise tax rate, without indifference curves to bind him, he will pick the rate so that the

excise tax budget line will go through point C, allowing him to continue to consume his most preferred combination on M_1X_1. (With indifference curves this is impossible since they cannot intersect). Such a rate is the only one that allows the question of comparing the two tax types to be answered. And the answer is: He will be, dare I say it, indifferent between the two tax types. [9] This result stems from posing the correct question: The government will take M_0M_1 in income from you regardless of the collection method; which do you prefer? Without indifference curves to obscure the analysis, this question can finally be meaningfully asked,, but the result is to reveal the two tax types as a lump-sum tax from the individual's perspective collected in two different ways (we are ignoring the other diverse effects of the two taxes). As I mentioned in the original article, the individual cares much more about how much he is forced to pay than in what manner the tax is collected.[10]

Tabarrok's quip about an excise tax on toothpicks not being a source of tax revenue equivalent to an income tax is erroneous (p. 109). As long as the individual continues to purchase at least one toothpick the government could indeed raise an equal amount of tax revenue by applying a very high excise tax rate. And why should it matter to the individual if the government forces him to pay $5000 in income tax by sending a check payable to the IRS or $5000 in excise tax by sending a check to Tom's Toothpick Outlet which Tom sends on to the IRS? This is the only plausible meaning of the phrase "equal tax revenue," i.e., the only way in which the government can conduct the postulated (mental) experiment.

But this result is not what an individual unbound from indifference curves will accept under the sequence of excise tax then income tax options. Without indifference curves, the individual would do the following (remember, he prefers point A to all others): Offered the excise tax option at the fixed rate, he would choose point M_0, i.e., he would consume no X (zero tax payment); then, offered an income tax of the same amount, he would move back to point A, paying nothing in taxes. This result does not require shifting preference rankings. His rankings would be: (1) point A with no tax, (2) point M_0 with the threat of excise tax, (3) point C forced to pay the tax of M_0M_1, (4) point B forced to pay the tax of M_0M_1 and forced to buy the amount of X at point B. Indifference curves prevent this subjective maneuvering, making it appear that the analysis is answering the posited question.

For further clarification, let us explore the alternative sequence. Without indifference curves and forced to pay the income tax of M_0M_1, the individual selects point C, which, by construction, must be his most preferred combination on M_1X_1. Now he is offered the excise tax option that renders the same tax payment, but not a given excise tax rate, and asked to choose. Because point C is his most preferred combination, he will continue to choose point C, not some point to the left of C as Tabarrok contends, asking for an excise tax rate such that the budget line runs from point M_0 through point C. (Otherwise the analysis is comparing a fixed income tax payment with a fixed excise tax rate.) Again he is indifferent between the two tax types. This result is impossible with indifference curves since the indifference curve tangent to the excise-tax budget line at point C would intersect the one tangent to the income-tax budget line at point C. The use of indifference curves obscures the analysis, making it appear to answer the question that it cannot even meaningfully ask. Tabarrok notwithstanding, the "theorem" cannot be proved without indifference curves or at least some restrictions on preferences beyond "more is preferred to less."

Tabarrok's second criticism, that the proof of the theorem need not follow a specific sequence (if indifference curves are removed), depends upon how one poses the question to be answered. If the government offers what the original question appears to ask, both tax types simultaneously, then the choice is: You must pay M_0M_1 regardless but you can select to pay either by income tax or by an excise tax on X, and the individual will not prefer one tax type to the other. If the government offers the excise tax first (at a fixed rate, for how else can it offer this option?), the individual (not bound by indifference curves) will substitute away from X to avoid the tax payment, then given the income tax alternative (with a zero tax payment), the individual will choose the income tax option and consume at the original point. If the government offers the income tax first (at a fixed amount, for how else can it offer this option?) the individual will adjust accordingly, then given the excise tax option (allowing the individual to choose the rate else the analysis is comparing a fixed excise tax rate with a fixed income tax amount), the individual will not prefer one type to the other. Sequence still matters, only now, without indifference curves, the solution is different.

Finally, Tabarrok failed to mention the most obvious result of the analysis (with or without indifference curves): The

individual prefers not to be taxed. By extension, an individual will prefer a tax offering that provides *ceteris paribus*, more chances to avoid so as to lower his tax payment. In the real world, where the government cannot enforce equal tax payments for different tax types, an excise tax on one good tends to be more easily avoided and thus preferred to an income tax, *ceteris paribus*. However, in the real world governments rarely allow citizens to make such choices. Instead they impose broad-based taxes for the very purpose of extracting greater tax revenues and search for theories they can use to pacify the long-suffering taxpayer.

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[1] See F. Y. Edgeworth, *Mathematical Psychics* (New York: Augustus M. Kelly Publishers, 1967 [1881]), pp. 35–36.

[2] See V. Pareto, *Manual of Political Economy* (New York: Augustus M. Kelley Publishers, 1971 [1909]), pp. 118f.

[3] See J. R. Hicks, *Value and Capital*, 2nd ed. (Oxford: Oxford University Press, 1946 [1939]), pp. 13 and 41f.

[4] Ludwig von Mises calls such mental experiments imaginary constructions, Mises, *Human Action*, 3rd rev. ed. (New Haven: Yale University Press, 1966 [1949]), pp. 31–32, 64–69, and 236–237.

[5] There are two praxeological laws of utility: the law of diminishing marginal utility and the law of increasing total utility. The first states that with units of a given size the marginal utility of each unit declines as the stock of the good increases. The second states that the marginal utility of a larger-sized unit exceeds the marginal utility of a smaller-sized unit. Both laws derive from the same source, viz., the purposefulness of human action, and thus in praxeological analysis one cannot "assume" the latter without "assuming" the former. See Murray N. Rothbard, *Man, Economy, and State* (Los Angeles: Nash, 1962), pp. 17–28 and 270.

[6] It is insufficient to respond to this choice by arguing that it violates the law of demand. Indifference curves are the underpinnings of the neoclassical conception of the law of demand and the latter cannot be assumed to exist without them, in the neoclassical paradigm, without restrictions on preferences

beyond more is preferred to less (see note 5). Also, the law of demand can only be derived *ceteris paribus*. Point *B* is selected under different underlying conditions than point *E* and thus, cannot be ruled out by the assumption that more is preferred to less. If this still seems untenable then consider the alternative sequence of tax offerings. Say an income tax is offered first and the individual selects point *E*, establishing it as his most preferred point on M_1X_1. Now he is given the excise tax option at a rate resulting in M_0X_E along which he prefers point *B*. The same situation is created.

[7] Unless the government forces the individual to buy the amount of *X* at point *B*. I made this point in the original article; see Herbener, "Austrian Methodology: The Preferred Tax Type," *Review of Austrian Economics* 2 (1988): 106. It is this additional coercion that makes the excise tax option less preferable.

[8] See Herbener, "Austrian Methodology," p. 106.

[9] His indifference in this situation is an artificial construct of the analysis, not a conceivable demonstrated preference. Only his action, i.e., his choice, can reveal which he actually prefers. The point in this analysis is that nothing definitive can be said about this choice, e.g., he *must* prefer one to the other.

[10] See Herbener, "Austrian Methodology," p. 105.

Economic Freedom and Interventionism: An Anthology of Articles and Essays. By Ludwig von Mises. Selected and edited by Bettina Bien Greaves. Irvington-on-Hudson, New York: Foundation for Economic Education, 1990.

Admirers of Ludwig von Mises will welcome this new collection of 46 articles and essays, most from the 1950s and 1960s, many rescued from obscure publication, and some recently translated into English. The titles of the book's subsections, "Economic Freedom," "Interventionism," "Mises as Critic," and "Economics and Ideas," remind us that Mises dealt with the big issues. Except in the final section, the individual selections are short and pithy; but throughout the book and with variation in context and level of abstraction, Mises makes the strongest and most fundamental case in favor of a market economy and against socialism and interventionism.

Characteristically, Mises has no patience with those who seemingly feign ignorance of economics in order to bolster their case for central control or those who flaunt their ignorance in some misdirected criticism of the business community. He condemns these detractors roundly and brands them as hypocrites, idle babblers, and ignoramuses. But Mises has near-infinite patience with the layperson who is eager to understand economic principles. He argues both explicitly (e.g., pp. 157 and 179) and by example that writing for the layperson is an important task that economists must undertake. Unlike experts in the natural sciences, who can apply their knowledge without soliciting the understanding and sympathy of the general citizenry, experts in the field of economics must educate the public. We can have market solutions to economic problems only if the participants in our political process can see through the fallacies of socialism and interventionism and accept the outcome of the market process.

Economists must also be able to converse with one another over the full range of economic issues. Mises emphasizes the interconnectedness of economic phenomena when he writes that "Economics does not allow any breaking up into special branches" (p. 55). Here, the modern reader can take Mises's "does not" for an "ought not." The actual breaking up of economics into separate fields and subfields together with the

insular nature of these highly specialized areas of concentration demonstrates, by its mocking contrast, the essential unity of economics.

Several of Mises's essays are linked substantively by recurring themes: The market does not favor big business or even business in general; it favors consumers. By their choices in the marketplace, consumers decide whether a business can get big, stay big, or stay in business at all. Consumers are sovereign in a market economy: their spending determines what it produces; their saving determines how fast it grows. The choices of consumers also determine indirectly the wage rates of workers. Interventionists who would override the market process that ties labor income to consumer spending and grant workers a larger share of business revenues on the basis of their proclaimed productivity misconceive the relationship between capital and labor. They fail to recognize that changes in labor productivity are attributable not to labor itself but to the capital that gives labor its leverage. To divert income away from capital and towards labor would be to discourage capital accumulation and hence to halt the increases in labor productivity that supposedly justified the income diversion. Mises identifies institutions that preserve ownership rights and maintain a sound monetary system as the essential prerequisites for encouraging saving, which finances capital accumulation, which makes labor productive, which maintains high living standards for the Western countries and distinguishes them from the underdeveloped countries.

The ultimate choice faced by the social scientist as citizen—and by the general citizenry—is the choice between a market system and a socialist system. Mises argues in terms of this either-or choice with great rhetorical effect using both overstatement and understatement. He argues (p. 55) that there can exist no middle way in the form of interventionism. The political dynamics of any such mixed economy result in either (1) interventionist policies pursued to the extreme of socialism or (2) the wholesale abandonment of interventionism in favor of the market system. In discussing a particular interventionist policy, farm subsidies enacted for the benefit of the independent farmer, Mises remarks in mid-paragraph (p. 209) that "One cannot subsidize a man to render him independent."

Though writing decades ago, Mises incorporates into his arguments many economic theories that have emerged full-blown only in recent years. He anticipates the kernel of truth in so-

called rational expectations theory by criticizing Keynes for his implicit belief that inflation can deceive the public persistently and systematically (p. 72); he anticipates a key aspect of supply-side economics and its Laffer Curve in noting that governments resort to inflation when tax rates have been pushed beyond the point of maximum returns (p. 103). The reader will encounter several such passages which establish Mises's ideas as precursors of now-fashionable insights.

If there is a weakness that characterizes this collection of essays, it is Mises's tendency to underestimate the enduring appeal of the ideas he criticizes. For instance, he writes (p. 140) that "As an economic doctrine, Keynesianism is now [1964] dead" and (pp. 120–21) that with the posthumous publication of the third volume of Marx's *Das Kapital* [1894], "the essential dogma of the Marxian philosophy, the class conflict doctrine. . . , was unmasked as a flop." But even now, as much as then, Keynesian doctrine is still alive, and Marxian doctrine still masquerades as high theory. In fact, these two doctrines (Keynesian demand failures and Marxian class conflict) plus the equally fallacious Ricardian production theory have all been combined to produce the present-day Post Keynesianism.

Today, as always, the general citizenry needs to understand economic principles and to recognize economic fallacies. The champions of freedom, Mises reminds us, can win out only through economic education. Students of Misesian economics will recognize Mises as the champion of champions and will be grateful to Bettina Bien Greaves and the Foundation for Economic Education for giving these essays and articles a new life.

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If You're So Smart: The Narrative of Economic Expertise. By Donald N. McCloskey. Chicago: University of Chicago Press, 1990.

The book *If You're So Smart* continues and extends the analysis of positivism in economics presented in *The Rhetoric of Economics*. Here, once again, Donald McCloskey champions the claims *of* rhetoric. He applies his approach to several issues of economic history and lambastes economists who don the mantle of science for their forecasts of the future.

McCloskey's critics often condemn him as an irrationalist who wishes to substitute myths of his own devising for the dictates of reason.[1] This accusation the author firmly rejects. He does not wish to expel fact and reason from economics; instead, he wishes to clear a space for literary understanding. Method, in his view, rests on a "rhetorical tetrad—fact, logic, metaphor, and especially story" (p. 24). Economists cannot proceed untrammeled by the constraints of fact; however, the world does not compel a simple response but leaves room for alternative accounts.

These accounts make use of the devices of literary persuasion. Rather than speak of a theory that confronts reality, McCloskey prefers to talk of "metaphorical and narrative questions [which] answer each other" (p. 10). The use of rhetoric aims to convince. Truth in economics, as in other academic disciplines, rests to a large extent on consensus among the subject's practitioners.

McCloskey writes with clarity and force, ably applying in practice the literary skills he endeavors to promote. His views on proper method, however, strike me as largely unpersuasive. The positivists whom McCloskey opposes divide meaningful statements into two classes: empirical and necessary. Only the former type secures new knowledge since logical necessity is a matter of linguistic convention and analytic statements are tautologies. (Necessarily false statements are meaningful, but for obvious reasons these need not be taken up here.) Whatever in language is neither empirical nor necessary is in strict terms without meaning. To claim that murder is wrong, e.g., is simply to express one's rejection of killing. Nothing factual has been asserted.[2]

McCloskey remains the prisoner of the positivist theories he so roundly condemns. If positivists dismiss the unverifiable as

poetry, McCloskey simply reverses the usual moral positivists draw from their partition of language. “Poetry” is not bad but good: science extends far beyond the limits to which positivists desire to confine it. Nowhere does McCloskey challenge the positivist theory of meaning itself. He fails to consider the view that strict knowledge may be obtained through other methods than those favored by positivists. (The praxeology of Mises is of course a key instance of such a view.) Instead, he tacitly agrees with his professed foes about scientific knowledge but calls for the inclusion in science of the emotive language that positivist method has as a principal aim to expel.

McCloskey states, e.g., “a metaphor used in an economic story is not ‘true’ in a simple way” (p. 64). By “metaphor” McCloskey does not intend a particular trope alone but rather all use of language which fails to be strictly factual in the positivist sense. Almost all statements used in economics count as metaphorical for McCloskey; since these statements are not fully verifiable they *cannot* be literally true. Of course, a metaphor in ordinary language is literally false: but, unless one accepts McCloskey’s view of literal meaning, a “metaphor” is his extended sense can be an ordinary language sentence that is true without qualification. “The value of an economic good depends on its marginal utility” is, if I have understood McCloskey’s usage, a metaphor, since the statement can be tested only approximately. But why not take the statement as non-metaphorically true, in the Austrian manner? I wish that McCloskey had examined the Austrian view, rather than simply embrace what his quondam Chicago colleagues reject while leaving unchanged their underlying analysis. Like them, he believes that the extent a statement cannot be verified, it lacks literal meaning.

One may, I think, go further. Even if McCloskey holds the view of literal meaning I have attributed to him, he ought still to examine the Austrian position. Praxeology starts from the axiom of action and a few additional assumptions and attempts to deduce the body of economic theory through common-sense reasoning. Mises devoted considerable effort to a refutation of positivism, and to good purpose. But do his own findings require one to reject the positivist criterion of meaning? I do not think so, unless one adds (as nearly all positivists do) that a scientific statement must be subject to continual experimental test. But why must it? The common-sense reasoning used by Austrians seems to generate propositions that are empirical, to the

satisfaction of the strictest supporter of verifiability. The fact that Austrians hold a different position about what sort of tests need to be used in science is altogether a different question. I do not wish to defend the verifiability criterion—quite the contrary. But even those who acknowledge it have no excuse to turn a blind eye toward praxeology.

McCloskey might reply that he has not neglected the deductive method. Praxeology claims to establish truth. In so doing, it falls victim to an argument McCloskey advances to show that we have no direct access to reality. (The argument is found in *Rhetoric* rather than *If You're So Smart*.) The argument is this: To determine whether our concepts accurately grasp reality would require us to examine reality without using our concepts, since it is their ability to convey truth which we wish to assess. But this we cannot do: We use concepts in all our knowledge. Absent any direct, non-conceptual grasp of reality, we must stay within the circle of our concepts. Once our inability to free ourselves from our conceptual net is accepted, we cannot shrink from the next step. We must recognize that we construct our concepts: they are found rather than made. To the extent that the Austrian method of deduction claims that its results are literally true, it must be rejected.

The argument just presented lacks the decisive force McCloskey, closely following Richard Rorty, attributes to it. What exactly is meant by the possibility that none of our concepts enables us accurately to grasp reality? "Negation" and "identity" are concepts we use: is there a "world-in-itself" to which they do not apply? The assumed non-conceptual world is, *ex hypothesi*, incapable of description. Why assume that it is possible?

The foregoing remarks do not suffice to dissolve skepticism. Even if some of our concepts cannot be imagined incapable of application, it does not follow that all of them share in this privileged status. Does not McCloskey's problem then recur? To determine whether a concept applies to reality, must one not "step outside" the concept and examine reality directly? And how exactly is one to do this?

This skeptical question cannot easily be answered, and I fear that I must take refuge in the evasion that this is not the place to address difficult issues in the theory of knowledge. Before turning from the issue, one needs to ask: Does McCloskey's problem require us to regard claims to knowledge as at least in part constructions based on metaphor rather than depictions of

an independent world? Not at all. McCloskey's difficulty has to do with verification—how do we know that our claims to depict the world accurately are true? Even if the question cannot be answered, our claims have not been undermined. To elicit a skeptical outcome from his question McCloskey needs to add the controversial "KK" principle—if *S* knows *p*, then *S* knows that *S* knows *p*. (Perhaps a weaker variant of the principle will do.) Suffice it to say that the principle is a dubious one: absent an argument for it, McCloskey has succeeded only in raising an interesting question.

In any event, even if one were to grant McCloskey the gap he alleges between our concepts and reality, economics emerges unscathed. Economics is concerned with human action: questions about the world independent of our concepts do not arise in it. One might object that economics deals with land, natural resources, techniques of production, etc., as well as action. But this is not to the point, since the items just mentioned do not belong to the noumenal world. They fall under our concepts, whatever else might not. McCloskey's foray into epistemology, though valuable, is not relevant to economics.

Though I have considerable reservations about McCloskey on the theory of knowledge, he seems to me much better when he takes up questions within economics. He discusses insightfully the views of several economic historians on. the British economy in the late-nineteenth century. He questions whether it. is useful to speak of decline, when in point of fact the British economy was expanding. The higher growth rate of Germany in some industries hardly suffices to show disaster for Britain. Here McCloskey makes an excellent case for the value of attention to metaphor. His discussion of what "decline" means is a model of acute literary analysis. His presentation of the career of Alexander Gerschenkron, one of his teachers, is also informative.

Unfortunately, McCloskey cannot leave philosophy alone; and in the central issued addressed in his book, he mars an otherwise useful treatment by dubious remarks.[3] He denies that economists can accurately foresee the future of the economy. Toward those who make such predictions, he asks the "American question" that forms his title: If you're so smart, why aren't you rich? If anyone could foretell the economic future, he would be in a position to gain for himself fabulous wealth. Why would he disclose his goldmine to others?

McCloskey's skepticism about economic predictions fits in well with the Austrian view, and his ironic account of economic

forecasting amuses and instructs. At times, McCloskey fails to distinguish two separate issues: is it possible to predict the future of the economy? If it is, why would the information be disclosed to the public? Perhaps, for all McCloskey has shown, there *are* successful predictors who keep their methods to themselves. Of course, McCloskey does not deny that there are successful entrepreneurs. The point at issue is whether there are *methods* of foreseeing the future.

Worse is to come. McCloskey informs us: "Humans react to economic predictions in ways that dampen or magnify the prediction" (p. 121). Hence the disclosure of a prediction will result in its falsification, as people take account of it in guiding their behavior.

This argument begs the question. If a prediction is correct, then people will not react to it in a way that falsifies it. It is logically possible that they modify their behavior in the ways McCloskey specifies, but a successful prediction does not require logical necessity. To say that people *will* modify their behavior is just to assume that the prediction will fail, the presumable point of the argument.

McCloskey's claim that self-prediction is impossible fails for the same reason. He states: "The impossibility of self-prediction has become a commonplace in philosophy. You do not know today what you will decide tomorrow, unless you have already decided it, in which case it is not tomorrow but today that you decided it" (p. 130). Is that so? I know what I shall have for breakfast tomorrow, but I have not now *decided* what to have. That I shall do tomorrow. The impossibility involved in this last remark I am entirely unable to fathom.

Returning to his epistemological theme, McCloskey offers his readers an important lesson: "Dogmatic Marxists, dogmatic neoclassical, dogmatic Austrian economists, dogmatic institutionalists, who have put each other's writings on an index of forbidden books, are ethically dangerous, all of them. They are true believers, or rather, believers in truth. The best lack all conviction, while the worst / Are full of passionate intensity" (p. 146).

McCloskey has misread the familiar lines: Yeats did not praise tolerance but described an imminent apocalypse. No doubt McCloskey, whose analysis of a Wallace Stevens poem (pp. 97–99) shows remarkable skill, knows "The Second Coming" perfectly well. Perhaps he is making a small joke at the unwary reader's expense. In any event, non-dogmatic is, if not the last

adjective one would apply to McCloskey, very near the last.

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[1] An example of such is Hans-Hermann Hoppe, "In Defense of Extreme Rationalism: Thoughts on Donald McCloskey's *The Rhetoric of Economics*," *Review of Austrian Economics* 3 (1989): 179–214.

[2] I do not wish to claim that all logical positivists adopt the group of positions noted here.

[3] McCloskey makes several technical mistakes. The statement about inflation in a parallel world should be in the indicative, not the conditional sense (p. 91). Leibniz did not hold that no possible worlds are similar to the actual world (p. 93). Church's theorem does not say that it is impossible to predict the future of mathematics (p. 131). A Pareto-superior change is confused with a condition of Pareto optimality; and a change that does not meet McCloskey's condition can be Pareto superior (p. 136).

Robert Nozick: Property, Justice and the Minimal State. By Jonathan Wolff. Stanford University Press, 1991.

Jonathan Wolff sets himself an ambitious goal in *Robert Nozick*. His principal aim is to offer a guide to Nozick's *Anarchy, State, and Utopia*. Beyond this, he says that "part of [my] task will be to reconstruct Nozick's arguments and conclusions to make them as coherent as possible. . . . I shall try to clarify Nozick's reasoning and make good the gaps where necessary and possible, so that we might appreciate the force of the arguments, and subject them to rigorous examination" (p. 2).

Wolff succeeds admirably in presenting a simplified version of *Anarchy, State, and Utopia*.[1] His accomplishment deserves extra praise because he strongly opposes what he believes to be the political consequences of the work (p. viii), but nevertheless remains fair in his presentation. Wolff never stoops to caricature, and the quarrels I have with his discussion concern matters of interpretation, not outright errors.

Wolff's account suffers from one principal defect, which prevents me from wholeheartedly recommending it. The author conflates Nozick's position with that of other libertarians. Sometimes he criticizes Nozick for positions he does not hold, but other libertarians do; on other occasions he challenges libertarians generally for not answering difficulties just because Nozick does not address them. Wolff's mistake in large part stems from his acceptance of the arguments of G. A. Cohen, one of his teachers. Cohen, a Marxist political philosopher of great acuity, has devoted several articles to Nozick which suffer from the problem previously discussed.

The issue arises quite early: At page 4, Wolff refers to Nozick as holding that one has "rights of ownership over oneself." He amplifies this remark so that the "thesis of self-ownership" becomes the basic principle of Nozick's system. In point of fact; Nozick never uses the term "self-ownership" in *Anarchy, State, and Utopia*. He does indeed hold that a person has rights over his or her body, in similar fashion to those such as Murray Rothbard who do use the term.

But much more than a difference in words is involved. In part because Wolff thinks that Nozick believes in self-ownership, he ascribes to him the position that all political rights consist of either rights over one's body or absolute rights to property. There

is no room for civil liberties, that cannot be reduced to the two basic forms of rights. Murray Rothbard and several other libertarians do hold exactly this view, but Nozick does not. Rothbard contends, for example, that free speech dissolves as a problem if one reduces situations of conflict to their underlying basis in property rights. Nozick attempts no such reduction.

Wolff's introductory chapter is otherwise accurate. He rightly notes that Nozick, and libertarians generally, sharply distinguish between the morally right and the legally enforceable. If people do not have welfare rights, it does not follow that the poor should be cast aside. Wolff asks: "But if all aid were voluntary, how much would be forthcoming?" (p. 12). He proceeds to canvas some ideas on voluntary aid by Milton and Rose Friedman, and others; but he neglects Nozick's own comments on the issue. Nozick holds that if people democratically support welfare taxes, there is little reason to think they would refuse to give charity voluntarily. He questions whether welfare provision is a public good.

Wolff then turns to a fuller characterization of Nozick's position on rights. He points out that Nozick attaches great importance to the Kantian principle that one ought not to use others simply as means. Each person has a separate life, and people cannot be used as means to the welfare of others.

But why should people be treated as ends? Wolff notes that Nozick's response places great, stress on the value of each individual pursuing a "self-shaping" life plan. He suggests that if one regards the meaning of one's life as more closely connected with others than does Nozick, a different view of rights might ensue (p. 29).

Here I think Wolff's slightly but significantly misapprehends Nozick's view. The prohibition against using others follows from the Kantian principle, not from Nozick's explanation of why, people are morally valuable. Even if one were to adopt a view of life's meaning along the lines Wolff suggests, this would not directly challenge Nozick's view of rights. It would do so only if the hew view required rejection of the Kantian principle, or a different interpretation of it from the one Nozick offers. But to claim this requires more argument then Wolff offers.

Wolff presents as an example of a different view of rights a theory advanced by Samuel Scheffler, in which people have welfare rights as well as the negative rights favored by libertarians. In this view, "one necessary condition of leading a life is to lead a life" (p. 32). In order to lead a life, do not people

require rights to food, shelter, etc.?

The argument has gone too fast. Granted that people need certain goods to lead meaningful lives, does it follow that they need the right to these goods as well? Why is not sufficient if they obtain the goods through charity? Further, Nozick's proposal, once more, is not that people should have a set of rights determined by the notion of a meaningful life; it is that political measures ought not to require using some people as means to the ends of others. Even if one needs certain goods to lead a meaningful life, welfare rights may give some people the right to use others as means. (Scheffler's suggestion is unsatisfactory as stated here (p. 31), since on its terms, if anyone's using a particular good would prevent someone else from having a reasonable chance of living a decent and fulfilling life, no one would have a right to the good. What then is to be done with it? I suspect that this could be "fixed up.")

There is one further problem in Wolff's discussion of Nozick on rights. In his discussion of self-defense and punishment, Wolff does not mention that Nozick's use of the term "punishment" is different from its ordinary language sense of the imposition of a penalty. Nozick means by punishment a penalty that exceeds compensation. His question: why may we punish? is not equivalent to: why may we use force to retaliate for violations of rights?

Probably the most difficult section of *Anarchy, State, and Utopia* is Part I, in which the minimal state is derived. On the whole, Wolff does an excellent job in presenting clearly the steps in Nozick's complex argument. I found particularly valuable his challenge to the view that a monopoly protection agency will arise from the state of nature. Nozick's argument rests on the assumption that a larger agency will tend to defeat a smaller one in cases of conflict. A snowballing effect will ensue in which more and more people will transfer to the large agency. Wolff contends that in some cases, a smaller agency may defeat a larger one (p. 56).

Wolff also presents some interesting challenges to Nozick's principle of compensation. In his sketch of the role risk plays in the derivation of the minimal state, he fails to place sufficient stress on the type of fear Nozick thinks risky behavior that threatens bodily harm generates. Those who employ risky decision procedures may induce this anxiety. Compensation for the fear in case of wrongful use of a procedure is not feasible, since the anxiety arises not from any given instance of the use of

the procedures, but from perceptions of a general policy. It is for this reason that Nozick holds that the use of such procedures may be prohibited. “Prohibition” means that punishment, as earlier defined, may be imposed.

Wolff raises the pertinent question of why the dominant agency must compensate those who are disadvantaged by the prohibition of risky decision procedures, if one has no right to impose this risk. He overlooks the stress Nozick places on differences of opinion as to what constitutes an unacceptably risky procedure. A procedure need not be prohibited because its user, or a consensus of moral opinion, consider it too risky. Rather, the dominant agency acts on its own view of the matter. An example might be the prohibition of the use of majority verdicts injury trials for criminal offenses. The user of the prohibited procedure who is compensated has not done something morally blameworthy.

Further, Wolff fails to note that the dominant agency has no rights that other agencies lack. Non-dominant agencies, or independents for that matter, may prohibit the dominant agency from using risky decision procedures on their members or themselves, respectively. The problem with their doing so is that the dominant agency will not accept their views about risky procedures and will win in case the dispute leads to forcible conflict.

Wolff considers at length Nozick’s entitlement theory of justice. Naturally, he gravitates toward the Wilt Chamberlain case; and here his reliance on Cohen leads him in a misapprehension. The example depends for its force on the moral intuition that people have the right to make voluntary transfers of goods to which they are entitled. Wolff questions whether Nozick can use this claim, since he has not shown that the liberty of transfer follows from property rights. Nozick, he alleges, believes that “your liberty is only restricted if someone stops you from doing what you have a right to do” (p. 94). This contention rests on the view already mentioned that Nozick’s political theory recognizes only self-ownership and property rights as legitimate moral claims. Cohen takes Nozick to be saying this, and Wolff wrongly follows in his footsteps. To reiterate, this position is not to be found in *Anarchy, State, and Utopia*. Likewise mistaken is the view that Nozick thinks “you are only forced to do something if someone . . . violates your rights” (p. 94). This misinterpretation, also taken over from Cohen, extrapolates from an analysis of coercion in a particular case—wage bargains in

which there is no threat or use of overt violence—to a general theory of coercion.

Wolff rightly does not commit himself to accepting Cohen's supposition that the Lockean proviso is the sum and substance of Nozick's principle of property acquisition (pp. 113–14). Nozick does not specify a principle of acquisition at all, as Wolff also correctly notes. He might usefully have discussed work by Rothbard, Ellen Paul, and others, who have addressed this problem from a libertarian standpoint. Also, what Wolff aptly terms the "zipping back argument" (p. 108) does not show that Locke's proviso prevents property acquisition under all circumstances. This argument claims that if one appropriator fails to satisfy the proviso, no one can do so. It does so only if there is a "last" person who cannot appropriate while leaving as much and as good for others. Nevertheless, the argument does indeed show that a problem exists given what most Lockeans have in mind as the outcome of property acquisition.

Wolff is not convinced by Nozick's claim that taxation is on a par with forced labor. Wolff objects that there is a continuum between forced labor, on the one hand, and unrestricted liberty, on the other. Starting with slavery, we can gradually portray various states of affairs, each allowing greater liberty than its predecessor. Why is the infringement of liberty represented by taxation especially important? Depending on its severity, taxation may leave people relatively free.

Recourse to the prohibition of treating people as exclusively as means will I think enable us to see a difficulty in this argument. The various social states do not lie on the continuum that Wolff supposes. Rather, there is a gap between cases in which people are recognized as ends-in-themselves and those in which they are not. Within the latter class, some instances of coercion are more severe than others. But all suffer from the disqualifying defect of using some people for the benefit of others. In this way, taxation is akin to forced labor in an important respect.

Wolff discusses many other issues, but I think enough has been said to indicate the book's flavor. Wolff has amply achieved his goal of writing a useful introduction to Nozick. If he had in mind a more ambitious aim, i.e., a full-fledged assessment of the virtues and vices of Nozick's theory and of libertarianism as a whole, the verdict must be less favorable.

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[1] The book is concerned only with the Nozick of *Anarchy, State, and Utopia* (New York: Basic Books, 1974). Wolff notes Nozick's criticism of libertarianism in *The Examined Life* (New York: Simon and Schuster, 1989), but he does not discuss Nozick's later views at length (p. 2).

The Development of Keynes's Economics: From Marshall to Millennialism

Joseph T. Salerno

One long-standing interpretation of the *General Theory*, which has been growing in influence recently, emphasizes that Keynes's sociopolitical vision was formulated long before and, in fact, inspired the heterodox economic analysis and policy prescriptions that were served up in his most influential work. One of the earliest proponents of this interpretation, Joseph Schumpeter ([1951] 1965, p. 268) writes that "In those pages of the *Economic Consequences of the Peace* [published in 1919] we find nothing of the theoretical apparatus of the *General Theory*. But we find the whole of the vision of things social and economic of which that apparatus is the technical complement. The *General Theory* is the final result of a long struggle *to make the vision of our age analytically operative*." More recently this interpretive thread has been taken up by scholars who can be classified mainly, though not exclusively, as opponents of textbook Keynesian economics. For example, in a recent article on "The Sociopolitical Vision of Keynes," the late Karl Brunner reaches a conclusion similar to Schumpeter's. According to Brunner (1987, p. 32), "The general direction of Keynes's sociopolitical thoughts had . . . already emerged many years before he wrote the *General Theory*. . . . [The latter work] provided the underlying vision of the socioeconomic process in an extensive analytic context. The sociopolitical program outlined over the prior decade naturally fitted with the *General Theory* into a coherent story of modern Western society."

In another recent contribution, Allan Meltzer (1988, p. 5) declares that "[i]t is nearer the truth to say that the *General Theory* provided the analytic framework for Keynes's long-standing policy views than to conclude that the books' [sic] policy recommendations are the derived implications of his theory." Finally the post-Keynesian Hyman P. Minsky may be cited. Echoing Schumpeter, Minsky (1975, p. 145) writes:

> In an interpretation of Keynes's views on the implications of *The General Theory* for broader social issues and on the appropriate structure of policies designed to implement the new theory, his writings on politics and social policy prior to *The General Theory* are relevant. While *The General Theory* marks a sharp break in economic theory, the "social philosophy" implications he drew from the work are consistent with his earlier views. In fact, *The General Theory* can be viewed as giving an economic theoretic rationalization for views that Keynes's ethics and intuition had led him to, even as he was a practicing "classical" economist.

Textbook Keynesians, on the other hand, who generally are wont to emphasize the Great Depression as the main intellectual stimulus to the formulation of the "vision" underlying the *General Theory*, strongly demur from the Schumpeterian interpretation. For instance, in discussing Brunner's contribution cited above, Lester Thurow (Brunner 1987, p. 52) flatly states that "The *General Theory* would not have been written without the Great Depression." In his comment on Brunner, James Tobin (Brunner 1987, p. 53) expresses agreement with Thurow that the *General Theory* was presented as "a diagnosis of the world economic crisis of the Great Depression."

In this paper I shall argue that when the nature and evolution of Keynes's "vision" is fully grasped, the Schumpeterian and neo-Keynesian views of the *General Theory* are complementary rather than antithetical. It is indeed true that Keynes's ethical and sociopolitical views were formulated long before the writing of the *General Theory* and inspired and suffused the heterodox vision of the economic system presented in the book. But it is also true that prior to the onset of the Great Depression and up through 1931, in theorizing about the capitalist economy, Keynes proved to be a rigidly orthodox and parochial Marshallian economist, despite the idiosyncratic refinements and contrivances he introduced into Cambridge monetary theory in his *Treatise on Money*. It was not until 1932, at the earliest, that Keynes set himself to the task of overturning the Marshallian orthodoxy by undertaking the construction of a deliberately heretical economics explicitly based upon and embodying concepts and precepts derived from his ethical and social philosophy.

Keynes's social philosophy, the rudiments of which can already be found in *The Economic Consequences of the Peace* and which was expounded in widely scattered articles, book reviews, and speeches throughout the 1920s and early 1930s, can be classified as "millennialist." Although there are numerous variants of social millennialism or chiliasm, including those based on Christian theology and Hegelian philosophy (Rothbard 1990), what is common to all is the view that social evolution is teleological and, from a specific starting point, progresses along a necessary and definite course to a pre-ordained end. All millennialist theories are therefore presented as theories of historical stages in which human history is foretold as coming to a close in a paradisiacal final stage or millennium.

The teleological aspect of social millennialism has been well-described by Ludwig von Mises ([1936] 1951, p. 287):

> The teleological view describes the course of [social] evolution in all its windings and deviations. Thus it is typically a theory of stages. It shows us the successive stages of civilization until one is reached which must necessarily be the last, because no other follows it. When this point has been reached it is impossible to foresee how history is to proceed.

As a consequence of their teleological orientation, millennialist theories are inherently esoteric, gnostic, and antirationalist, involving the explicit or implicit assumption that the theorist or prophet alone possesses gnosis or direct intuition of the truths of social evolution.

Before examining Keynes's specific theory of social evolution, it is useful to broadly contrast this general characterization of millennialist theories with the approach to social evolution that I have elsewhere designated as "social rationalism" (Salerno 1990). The rationalist approach is methodologically individualistic and seeks for the ultimate explanation of social evolution in the perceived benefits which accrue to individuals as a result of their participation in the social division of labor. The rationalist approach is thus nonteleological and eschews any attempt to foretell the exact course of human history. Social progress is identified with the intensification and extension of the social division of labor, which proceeds from the recognition by ever-increasing numbers of individuals and groups that it is advantageous to endeavor to

satisfy a growing number of wants by consciously organizing their productive activities in accordance with the law of comparative advantage (Salerno 1990, pp. 27–31). As Mises ([1936] 1951, p. 287) points out, in the rationalist view, "[t]he end of social evolution can be no other than that of society itself." The law of comparative advantage which is "the law of social evolution" yields "insight, not into man's destiny, but into man's doings" (Mises [1936] 1951, pp. 287–88).

Because the rationalist theorist relies only on ratiocinative processes in formulating his explanation of the evolution of society, his theory is exoteric and subject to critical examination and refutation by other reasoning beings. Indeed, in order for much progress to be made toward the formation of a world-embracing division of labor and market society, the law of comparative advantage requires conscious affirmation by human reason. In history, this affirmation takes the form of the deliberate development and popular acceptance of a coherent ideology of social life which supports human liberty, private property, and a market economy, while abhorring political omnipotence, privilege, and warfare (Salerno 1990, pp. 46–53). The millennialist approach, on the other hand, posits the existence of a metaphysical and supra-rational force which, through "the cunning of History," drives human beings to those actions which are necessary to the achievement of humanity's final goal.

In the next section, I provide a brief overview of Keynes's most important intellectual influences. These influences are small in number and relatively parochial, involving two Cambridge dons and a British political theorist. In creating his sociopolitical vision, Keynes drew mainly upon the ethical philosophy of G. E. Moore, the political philosophy of Edmund Burke, and the economics of Alfred Marshall. From Marshall, Keynes also adopted the millennialist theoretical framework which the former constructed as a prop for his "preaching of mid-Victorian morality, seasoned by Benthamism" (Schumpeter [1951] 1965, p. 104).

In section 3, I trace the development of Keynes's millennialist theory of social evolution, upon which, I argue, his sociopolitical vision is based. I also suggest that, during the decade of the 1920s, in which this development mainly occurred, Keynes viewed Marshallian economics as a tool for guiding a dynamic and useful but unsteady and unethical capitalist economy toward the impending post-scarcity millennium and

that his *Treatise on Money* (Keynes [1930] 1958) was intended as a handbook for just this purpose.

Section 4 contains an account of Keynes's apostasy from Marshallian economics in consequence of the Great Depression and his endeavor, beginning in 1932, to formulate a heretical body of economic analysis and policy, which was designed to effect a rapid transition to the millennium. In the fifth and concluding section of the paper, I present the case that the basic building blocks of the *General Theory*, including the theories of effective demand and liquidity preference and the concept of the marginal efficiency of capital, are fashioned out of the Moorite ethical precepts that Keynes presumed would guide action in his imagined millennial state.

Keynes's Intellectual Influences

G. E. Moore served as Keynes's guide in his conception and pursuit of the ethical good. In Keynes's interpretation of Moore, ethical goodness or "the Good" is an attribute uniquely related to "states of mind," which are the only things valuable in and of themselves. In elaborating upon his version of the Moorite "religion," Keynes (quoted in Skidelsky [1983] 1986, p. 141) writes:

> Nothing mattered except states of mind. . . . These states of mind were not associated with action or achievement or with consequences. They consisted in timeless passionate states of contemplation and communion, largely unattached to "before" and "after." . . . The appropriate subjects of passionate contemplation and communion were a beloved person, beauty and truth, one's prime objects in life were love, the creation and enjoyment of aesthetic experience and the pursuit of knowledge. . . . [The Moorite] religion was altogether unworldly—with wealth, power, popularity or success it had no concern whatever, they were thoroughly despised.

According to Keynes (quoted in Skidelsky [1983] 1986, p. 142), he and the other early proselytes of Moore's religion:

> lived entirely in present experience, since social action as an end in itself and not merely as a lugubrious duty had dropped out of our Ideal, and

> not only social action, but the life of action generally, power, politics, success, wealth, ambition, with the economic motive and economic criterion less prominent in our philosophy than with St. Francis of Assisi, who at least made a collection for the birds.

Thus the Moorite contribution to Keynes's thought is a concept of the highest good as consisting in a succession of timeless states of consciousness to be experienced in the present moment. There is further a tendency in Moore to treat these internal states of goodness as wholly independent of any external means for their achievement. As Skidelsky ([1983] 1986, p. 146) points out, not only is economic welfare not the same as ethical goodness, "there is nothing in Moore's argument to show that it is a necessary condition of it." Thus Keynes absorbed a radical present orientation from Moore's thought and a related tendency to denigrate "economizing" or purposeful behavior associated with scarcity, since attainment of ethical goods did not directly depend upon—indeed was inhibited by—the undertaking of time-consuming processes of production employing scarce means.

On two crucial points, however, Keynes broke with Moore. First, while he accepted the sharp distinction drawn by Moore between economic welfare and ethical goodness, Keynes struggled mightily to forge a logical link between economic, social, and political goods on the one hand and the Moorite ethical good on the other. Keynes supplies this link by conceiving the existence of society as an absolute and necessary precondition for the realization of the individual's "good states of mind." The overall social good, including economic welfare, while not intrinsically good, is therefore to be sought after as a "useful" and "valuable" means to the ultimate end of the ethical good (Skidelsky [1983] 1986, p. 154). For Keynes, however, because the ethical quality of the end could never be imputed to or reflected by the means, the Good is always to be valued absolutely above its means of attainment, thereby precluding the logical development of a universal principle on which resources are to be allocated between the immediate attainment of good states of mind and the securing of conditions that may be useful for their attainment in the future. Thus the claim of the ethical good on behavior appears to be absolute, indivisible, and beyond the pale of scarcity and economic science. Of course, Keynes did

believe that non-ethical ends had a claim on behavior in certain circumstances, but, as Skidelsky ([1983] 1986, p. 154) states, "the connection [between economics and ethics] for Keynes was never mechanical, always problematic."

For guidance in identifying the social good and the proper method for its achievement, Keynes turned to the political philosophy of Edmund Burke. As Skidelsky ([1983] 1986, p. 154) states, "[i]f Moore was Keynes's ethical hero, Burke may lay strong claim to be his political hero."

Keynes (quoted in Skidelsky [1983] 1986, p. 155) broadly characterized Burke as a utilitarian, for whom politics and government were the essential means to securing the "happiness of the people" in the form of "physical calm, material comfort, and intellectual freedom." For Keynes these qualities are, in turn, the "great and essential means" for the attainment of the ultimate Moorite "good things" in life, which flow from the cultivation of the "tastes and emotions, good feeling and right judgment."

According to Keynes (quoted in Skidelsky [1983] 1986, p. 155), one of the most important corollary principles of Burkean utilitarianism is an "extreme timidity in introducing present evils for the sake of future benefits." In support of this principle, Keynes argued that:

> Our power of prediction is so slight, it is seldom wise to sacrifice a present evil for a doubtful advantage in the future. Burke ever held, and held rightly, that it can seldom be right to sacrifice the well-being of a nation for a generation, to plunge whole communities in distress, or to destroy a beneficent institution for the sake of a supposed millennium in the comparatively remote future. . . . It is the paramount duty of governments and of politicians to secure the well-being of the community under the case in the present and not to run risks overmuch for the future.

Keynes (quoted in Skidelsky [1983] 1986, p. 157) summed up Burke's political philosophy in the following terms:

> His goods are all in the present—peace and quiet, friendship and affections, family life, and those small acts of charity whereby one individual may sometimes help his fellows. He does not think of the

> race as marching through blood and fire to some great and glorious good in the distant future; there is, for him, no great political millennium to be helped and forwarded by present effort and present sacrifice.

Thus, Keynes derived two things from Burke: (1) the belief that government and politicians are competent to directly secure the material conditions that foster "general happiness" or "the wide dissemination of comfort" and that are also the means for attaining the spiritual or mental states that constitute the ultimate good; and (2) a strong present orientation in policy matters which dovetails with the severely foreshortened time horizon that is entailed by acceptance of Moore's notion of the ethical good.

The second point on which Keynes disputed his mentor on ethics involves probability theory. As a utilitarian, Moore contended that it is rational to pursue one's own immediate good only if this pursuit will, on balance, increase or at least not decrease the good of the Universe. However, in attempting to judge which course of action is rational in this sense, the individual actor is confronted with the daunting task of correctly forecasting and assessing the myriad consequences of his action, which may ramify into every corner of the remote future. The insuperable difficulty of this task leads Moore (quoted in Skidelsky [1983] 1986, p. 152) to argue that "[o]ur utter ignorance of the far future gives us no justification for saying that it is even probably right to choose the greater good within the region over which a *probable* forecast may extend." Moore concludes, therefore, that, in most cases, an individual rationally pursuing the ethical good can do no better than to conform to general rules of conduct, such as those embodied in the dictates of conventional morality.

Keynes reacted to this argument by challenging Moore's underlying approach to probability, which Keynes identified as a frequency theory of probability involving certain knowledge of the distribution of outcomes. In Keynes's view, the concept of probability which is relevant to action is one which refers to the available evidence regarding alternative actions. A proposition about the outcome of a contemplated action is more probable than a proposition regarding an alternative outcome, if, however slight the presently existing evidence, it indicates that the first outcome is more likely than the second. As Keynes ([1921] 1962,

pp. 307, 310) states:

> Given as our basis what knowledge we actually have, the probable . . . is that which it is rational for us to believe. . . . To believe one thing *in preference* to another, as distinct from believing the first true or more probable and the second false or less probable, must have reference to action and must be a loose way of expressing the propriety of *acting* on one hypothesis rather than another. . . . We might put it, therefore, that the probable is the hypothesis on which it is rational for us to act. . . . The results of our endeavors are very uncertain, but we have a genuine probability, even when the evidence upon which it is founded is slight. . . .

With this theory of probability, Keynes is able to free the Moorite pursuer of good mental states from the shackles of conventional rules of correct conduct that were clamped on by Moore himself as a utilitarian concession to the uncertain future. According to Keynes ([1921] 1962, pp. 309–10): "If good is additive, if we have reason to think that of two actions one produces more good than another in the near future, and if we have no means of discriminating between their results in the distant future, then by what seems a legitimate application of the Principle of Indifference we may suppose that there is a probability in favor of the former action." Thus, the claims of the immediate good upon action are even stronger for Keynes than for Moore, because Keynes's theory of probability permits him to ignore the unforeseeable future ramifications of present action.

The final major influence on Keynes's social philosophy is his mentor in economics, Alfred Marshall. Marshall's influence on the early Keynes is difficult to overestimate. From all accounts, Keynes the economist was steeped in Marshall. Dating from his academic appointment to Cambridge in 1909, Keynes "taught straight Marshallian doctrine . . . the doctrine he mastered as few people did and with which he remained identified for twenty years to come" (Schumpeter [1951] 1965, p. 263).

Revelations of Keynes's astonishing parochialism in economic theory are provided by Harrod, his disciple and authorized biographer. In urging the young Harrod to attend Cambridge, Keynes "brushed aside" the London School of Economics and rejected the alternative of a foreign university

because, according to Keynes, "they knew nothing at all of Economics on the Continent" (Harrod 1951, p. 319). Harrod (1951, p. 322) refers to "Keynes's dictum that there wasn't any place but Cambridge where one could learn economics." After enrolling at Cambridge, Harrod was impressed by Keynes's view that "the content of economic theory was extremely small" and that "wide reading in economic theory" was not necessary. Keynes believed, as Marshall had, that "there was not much further work to be done" in the field of economic theory, and Keynes's "recipe for the young economist was to know his Marshall thoroughly and read his *Times* every day carefully, without bothering too much about the large mass of contemporary publication in book form" (Harrod 1951, p. 324).

More recently, Moggridge (1976, p. 153) has affirmed that "broadly Marshallian modes of analysis pervade all Keynes's work, even when Marshall and his successors were the objects of attack, as in the *General Theory*."

In the judgment of his fellow Cantabrigian, A. C. Pigou (quoted in Keynes 1973, p. 22), even after he discarded some of the technical apparatus of Marshallian theory in the 1930s Keynes remained, in terms of his philosophical approach to economics as a branch of applied ethics, "a firm disciple of the 'Master.'" As late as 1938, for example, Keynes defended Marshall's view, as against Robbins's, that economics is "a moral science" which "employs introspection and judgments of value" (Moggridge 1976, p. 22).

Writing in 1941, Keynes (quoted in Hession 1984, p. 326) described the doctrinal filiation of his own intensely ethical approach to economics in the following terms:

> Along one line of origin, at least, economics more properly politico-economy is a side of ethics. Marshall used always to insist that it was through ethics he arrived at political economy, and I would claim myself in this, as in other respects, to be a pupil of his. I should have thought that nearly all English economists in the tradition, apart from Ricardo, reached economics that way. There are practically no issues of policy as distinct from technique which do not involve ethical considerations.

Accordingly, one of the main props for Keynes's social philosophy is the value-laden theory of wants developed by

Marshall. Marshall's classification of wants is threefold. "Natural" human wants refer to the biological needs for, e.g., food and shelter, which characterize both the lower animals and uncivilized man. According to Marshall ([1920] 1949, p. 86), the wants in this class "are countless in number and very various in kind: but they are generally limited and capable of being satisfied." As civilization progresses, however, there emerges a second class of "artificial" wants, which are not capable of satiation. Marshall ([1920] 1949, p. 88) includes in this class the craving for distinction among one's fellows which, for example, in the case of women's dress, gives rise to "the evil dominion of the wanton vagaries of fashion."

Marshall's third category encompasses "wants adjusted to activities." In the early stages of social evolution, wants are the prod to human "activities," which are aimed almost exclusively at satisfying these wants. In the higher stages, in which natural wants have been satisfied, "higher" activities begin to be undertaken for their own sake leading to the creation of wants. Marshall's example of this inverted relationship between wants and activities is the pursuit of science, literature, and art for their own sake, generating a demand for the labor of those who pursue these activities professionally (Marshall [1920] 1949, pp. 88–89). The rapid increase in the consumption of tea, while the consumption of alcohol stagnates, affords another illustration, because, according to Marshall ([1920] 1949, p. 89 1n), tea is desired to "stimulate the mental activities," just as alcohol serves to "merely gratify the senses." As the pursuit of higher activities becomes increasingly widespread in society, there emerges a pervasive "desire for excellence for its own sake" causing the processes of production, heretofore seen as merely a means to want satisfaction, to be transformed into higher activities pursued as ends in themselves. Thus the work of the fisherman begins to take on the character of the "activities" of a Newton or a Stradivarius (Marshall [1920] 1949, p. 89). For Marshall (quoted in Parsons [1937] 1968, p. 141 1n), then, "[w]ork in its best sense, the healthy energetic exercise of faculties is the aim of life, is life itself."

Marshall's theory of wants and activities serves as the basis of his theory of social evolution, which also deeply influenced Keynes. Thus Marshall ([1920] 1949, p. 85) tells us that "it is to changes in the forms of efforts and activities that we must turn when in search for the keynotes of the history of mankind." The reason is that "man's character has been molded by his every-day

work, and the material resources he thereby procures, more than any other influence unless it be that of his religious ideals" (Marshall [1920] 1949, p. 1). Human character is thus developed in the very process of economic and social evolution in which, in the later stages, "each new step upwards is to be regarded as the development of new activities giving rise to new wants" (Marshall [1920] 1949, p. 89).

Most important for Marshall, economic and social progress is expressed in a "rising standard of life," a term which Marshall never clearly defines but which can be understood as "some kind of index of human quality: a scalar function of a vector of attributes or 'activities,' physical or mental, such as energy, dexterity, rationality, foresight, honesty, unselfishness, striving for self-improvement and social improvement, and so on" (Whitaker 1977, p. 180). An increase in the standard of life implies, e.g., a reduction of expenditure on debilitating alcoholic beverages and an increase of expenditure on healthful food and drink and children's education, as well as an increase in saving and therefore capital accumulation. The resulting improvement in the laborer's health, morale, and human capital as well as in the material structure of complementary capital goods will tend to increase labor efficiency and real wage rates. Increased wage rates will, in turn, provide the wherewithal, including the greater opportunity for the enjoyment of leisure, which is needed to satisfy the wants induced by the pursuit of "higher activities" (Whitaker 1977, 179, pp. 184–85).

Marshall's almost obsessive emphasis on leisure—albeit leisure to pursue ennobling or "higher" activities—as a prerequisite of character development and social progress should be noted. In his own words, "Some free time from the fatigue of work that tires without educating, is a necessary condition of a high standard of life." For the young, in particular, it is "an essential condition" for developing "their higher nature" and making them "efficient producers" that they be given "long-continued freedom from mechanical toil; together with abundant leisure for school and for such kinds of play as strengthen and develop the character" (Marshall [1920] 1949, p. 720).

The improvement of character that results from higher activities pursued during leisure time will further heighten the standard of life and lead to a further round of improvement in consumption habits and of increased investment in material and human capital, with the consequent increase in real wages starting the whole process over again. Marshall ([1920] 1949, p.

690) implies, however, that this development process may be short-circuited if an increase in real wage rates is squandered on increasing the "standard of comfort," by which he means "a mere increase of artificial wants, among which perhaps the grosser wants may predominate."

And if the masses persist in wallowing in a degraded standard of life, thereby obstructing social progress, Marshall ([1920] 1949, p. 714) suggests a two-pronged solution. The "residuum," or those who are "physically, mentally or morally incapable of doing a good day's work with which to earn a good day's wage," are to be prevented from perpetuating themselves by rearing up children "in their own patten." To this end, those with young children are to "come under a paternal discipline" and to incur "a more strict subordination of personal freedom to public necessity." As a last resort, Marshall ([1920] 1949, pp. 714–15 1n) advocates that "the homes might be closed or regulated with some limitation on the freedom of the parents."

Marshall's second method of "causing the residuum to cease from the land" and hastening social progress involves "the application of the principles of Eugenics to the replenishment of the race from its higher rather than its lower strains. . ." (Marshall [1920] 1949, pp. 714, 248). Theodore Levitt (1976, p. 429) perceptively refers to this second method as "the ultimate solution," because "ultimately what Marshall preached was not so much economics as it was moral and aesthetic development."

Although Marshall advocated a political solution to the problem of the residuum, "It was free enterprise, softened and modified by altruism and chivalry, which was to be the main agent of human evolution" (Whitaker 1977, p. 181). According to Marshall, as society progressed, men in the realm of business would increasingly foreswear the single-minded pursuit of the coin of pecuniary gain and substitute competition for the coin of chivalric achievement and the social acclaim and approbation it purchased. In this way business activities would come to resemble the arts and sciences. Such "chivalrous competition," to use Marshall's term, would be undertaken primarily as a "higher activity," which, as Whitaker (1977, p. 173) describes it, unites "public spirit and conscientiousness with a delight in doing noble and difficult things and a desire for full exercise of one's own abilities."

As members of the middle and upper classes come to exert themselves more and more for chivalric motives, the supply prices of the various kinds of managerial and professional effort,

especially of what Marshall ([1920] 1949, p. 618) calls "business ability in command of capital," decline absolutely and relative to the wage rates of the more common grades of labor, and this effects a spontaneous redistribution of income toward the working class. As Marshall (quoted in Whitaker 1977, p. 174) puts it, "if society could award . . . honor, position, and influence by methods less blind and wasteful; and if it could at the same time maintain all that stimulus which the free enterprise of the strongest business men derives from present conditions, then the resources thus set free would open out to the mass of the people new possibilities of a higher life." Thus does chivalrous competition promote social evolution, permitting members of the working class to attain to the "society of gentlemen" wherein "no one is to do in the day so much manual work as will leave him little time or little aptitude for intellectual and artistic enjoyment in the evening" (Marshall quoted in McWilliams-Tullberg 1975, p. 102).

As noted above, all millennialist social theories are essentially teleological, typically attempting to describe the precise course of evolution by positing a series of well-defined historical stages through which society must evolve before reaching its final goal in the culminant stage of human history. Now this is certainly typified by Marshall's theory of social evolution. This theory is centered upon what Talcott Parsons ([1937] 1968, p. 158) has identified as "Marshall's belief in an absolute goal of evolution, the development of character in his peculiar sense." Marshall (quoted in Whitaker 1977, p. 183) himself describes the final stage of social evolution as a state with "no rights but only duties; where everyone shall work for the public weal with all his might expecting no further reward than that he in common with his neighbors shall have whatever is necessary to enable him to work well, and to lead a refined and intellectual life." In a more mature work, Marshall (quoted in Levitt 1976, p. 439) posits a "distant goal where the opportunities of the noble life may be accessible to all."

In the *Principles*, Marshall ([1920] 1949, p. 752) gives a decidedly Hegelian cast to his desiderated millennium, referring to "an order of social life, in which the common good overrules individual caprice, even more than it did in the early ages before the sway of individualism had begun. But unselfishness then will be the offspring of deliberate will; and, though aided by instinct, individual freedom will develop itself in collective freedom. . . ." Thus, for Marshall, human history is to culminate in what we

may call the Era of the Noble Life, in which all human activities, from sipping tea to mining coal, are completely transformed into "higher activities" not driven by wants but undertaken as an aid to or an exercise of the higher human faculties.

Before society can enter into this paradisiacal state, however, humanity and the human character must be prepared by passing through two earlier stages. In the first stage, let us call it the "Era of Scarcity," almost all human activities are directed toward solving the problem of scarcity, conceived of in Marshall's peculiar and narrow sense of satisfying *basic* human wants. The transitional stage or the "Era of Chivalry" dawns with the arrival of the Victorian gentleman upon the scene: the solution of the economic problem for at least some segments of the population yields the leisure and material resources necessary to an enhanced "standard of life" marked by the pursuit of character-developing and productivity-improving higher activities. The resulting character development effects a progressive transformation of the motive, from pecuniary to chivalric, for which capital is invested and business activities are undertaken, thereby lowering the supply price at which "business ability in command of capital" is forthcoming and raising the real wages of the working class. In this way, free enterprise conducting itself in accord with chivalrous competition will insure that the resources and opportunities for character development and a rising standard of life trickle down to the working classes.

To the extent that members of the working class invest the newly won additions to their incomes in the acquisition of higher skills for themselves and for their offspring, the supply of unskilled labor will eventually diminish, augmenting the rise in the real wages of the unskilled and offering increased access to a higher standard of life. The residuum who, due to defect of will or ability, do not avail themselves and their children of this opportunity for character improvement will be eventually suppressed by compulsory State education and supervision of child rearing and, in the last resort, of reproductive activities. Thus will the chivalrous and duty-bound Victorian businessman, abetted by a bracing dose of State paternalism and eugenics administered to the physically and morally unfit, usher humanity into the Era of the Noble Life.

Marshall's theory of social evolution leads to a peculiar conception of the economic problem confronting humanity. Construed conventionally as the confrontation between virtually

limitless human wants and limited resources, scarcity is not the permanent problem burdening humanity. For Marshall, the central problem of economic science and of social evolution is the devising of a framework for society's business and productive activities which promotes the unimpeded development of human character. To put it another way, once the Era of Scarcity has been transcended, consumption is no longer the *end* of production but the *means* which permits men to "work well" and improve their standard of life. Thus Marshall ([1920] 1949, pp. 530, 193) proclaims that the "end of all production" is to "raise the tone of human life" and that "the chief importance of material wealth lies in the fact that, when wisely used, it increases the health and strength, physical, mental and moral of the human race."

What Marshall ([1920] 1949, p. 85) calls the "keynote of the history of mankind," therefore, is not the struggle against scarcity, which is an ephemeral condition capable of resolution, but the proper development of human character. Marshall (quoted in McWilliams-Tullberg 1975, p. 93) is emphatic on this point, declaring that "I have always held that poverty and pain, disease and death are evils of greatly less importance than they appear, except in so far as they lead to weakness of life and character. . . ." The *raison d'être* of economic science is therefore to study the evolutionary process of human character formation in order to guide it to its fruition in the millennium of the Noble Life. In Marshall's words (quoted in Whitaker 1977, p. 179): "[The] progress of man's nature . . . is I conceive, the center of the ultimate aim of economic studies. . . . human will, guided by careful thought, can so modify circumstances as largely to modify character; and thus to bring about new conditions of life still more favorable to character; and therefore to the economic, as well as moral well-being of the masses of the people."

In a revealing comment, Keynes (quoted in Whitaker 1977, p. 185) observes that "[t]he solution of economic problems was for Marshall, not an application of the hedonistic calculus, but a prior condition of the exercise of man's higher faculties." In fact, as we shall now see, Keynes adopted Marshall's view of the economic problem as well as the latter's millennialist vision of social evolution.

The Development of Keynes's Sociopolitical Vision

Keynes's social philosophy and particularly his theory of social

evolution are not coherently stated in any one of his works but must be pieced together from scattered discussions in articles and books written over the span of more than a decade. Nevertheless, this endeavor does lead us to view Keynes as a consistent and thoroughgoing millennialist in his approach to social evolution.

We get an early and brief glimpse of Keynesian themes in this area in *The Economic Consequences of the Peace*, first published in 1919 (Keynes [1920] 1971). In a chapter on "Europe before the War," there appears a section blandly entitled "The Psychology of Society." In little more than four pages, Keynes suggests the fundamental irrationality of abstaining from present consumption, emphasizes the importance of capital accumulation and compound interest to social evolution, delineates a teleological approach to human history whose goal is inexplicably known to him, and speculates on an evolutionary solution to the problem of scarcity. All of these themes were absorbed from his mentors and were to become hallmarks of Keynes's later works.

To begin with, Keynes ([1920] 1971, p. 19) points to the "immense accumulations of fixed capital" which occurred, "to the great benefit of mankind," in the fifty years leading up to the World War I and attributes these to the inequality of the distribution of wealth in favor of that class least likely to consume it. Thus the maintenance and accumulation of capital depends on what Keynes ([1920] 1971, p. 19) calls "a double bluff or deception." On the one hand, the laboring classes were deceived into accepting "a situation in which they could call their own very little of the cake that they and Nature and the capitalists were cooperating to produce" (Keynes [1920] 1971, p. 20). The capitalists, on the other hand, were equally deceived because, although the greatest part of the national income "cake" accrued to them, it could remain in their possession only "on the tacit underlying condition that they consumed very little of it in practice" (Keynes [1920] 1971, p. 20). Any attempt by the capitalists to exercise their *de jure* right to expend their vast accumulation of wealth on present consumption would provoke the wrath of the much more numerous laboring class and result in the capitalists' expropriation.

But how was this elaborate deception maintained, by whom, and to what end? According to Keynes, the deception was maintained by ordaining saving as a virtue and the consequent growth of the capital structure and national income as "the object of true religion." Says Keynes ([1920] 1971, p. 20), "There

grew round the non-consumption of the cake all those instincts of puritanism which in other ages has withdrawn itself from the world and has neglected the arts of production as well as those of enjoyment." But, clearly, saving or "the non-consumption of the cake" is, from the individual's point of view, without reason or purpose. The conventional motives of saving for one's dotage or for one's offspring, Keynes ([1920] 1971, p. 20) suggests, were based on a self-delusion, for "the virtue of the cake was that it was never to be consumed, neither by you nor by your children after you."

Who is the perpetrator of this grand deception and the founder of the false religion of saving? Keynes's answer is a hypostatized Society, which is wisely propelling humanity forward to the millennium through the actions of the deluded savers and investors. Writes Keynes ([1920] 1971, pp. 20–21):

> In the unconscious recesses of its being Society knew what it was about. The cake was really very small in proportion to the appetites for consumption, and no one, if it were shared all round, would be much the better off by the cutting of it. Society was working not for the small pleasures of today, but for the future security and improvement of the race. . . .

The progressive accumulation of capital insures that, eventually, Society reaches its pre-ordained goal, the problem of scarcity is resolved and the millennium is at hand. As Keynes ([1920] 1971, p. 21) prophesies, "[i]n that day overwork, overcrowding, and underfeeding would have come to an end, and men, secure of the comforts and necessities of the body, could proceed to the nobler exercises of their faculties." Note that Keynes's brief description of the millennial state reflects the narrow Marshallian conception of scarcity as the inability to provide for the basic human wants of food, shelter, and clothing. Once such biological needs are adequately met, humanity is freed from the shackles of scarcity to pursue, if it only will, ennobling activities.

Note also that, for Keynes, the primary force propelling humanity toward its destiny is not Marshallian free enterprise rendered pure and chivalrous but capital accumulation pure and simple. This is why, as Brunner (1987, p. 37) has recognized, "Keynes was very much concerned with the accumulation of real capital in modern economies." As we will see, Keynes never

wavered in his belief that capital is the foremost agent of social transformation.

Also noteworthy is Keynes's view that the accumulation of capital and, hence, the progress of society toward the millennium depends on a thoroughly irrational propensity of human beings to save. This poses a conundrum of great moment which Keynes, at this early stage, attempts to resolve by reference to mysterious social forces that perpetrate a "double bluff." The bluff misleads two classes of individuals, capitalists and laborers, whose interests are irrevocably opposed, into undertaking activities and entering into social arrangements that are in the interests of neither class. But Keynes was understandably uneasy with this resolution and, as I shall argue below, the evolution of Keynes's technical economics can be viewed as a long struggle to unravel the conundrum.

In a series of articles written in the 1920s, Keynes further transformed Marshall's millennialist vision by incorporating additional elements of Moore's philosophy into it. In particular, Keynes called into question what was firmly averred by Marshall: the intrinsic value of the activities and mental states inspired by competitive capitalism. Keynes also emphatically rejected Marshall's belief that humanity's millennium lay in the distant future and that progress toward this desideratum still demanded stiff present sacrifices. For Keynes, the millennium was close at hand, and humanity would be wise to sample its fruits in the present.

In "A Short View of Russia," first published in 1925, Keynes [1931] 1963, pp. 297–311) favorably contrasts the religious spirit at the core of Russian communism to the spiritual poverty that attends the pursuit of money-making under modern capitalism. According to Keynes ([1931] 1963, pp. 302–03),

> [the] *emotional and ethical essence* [of Leninism] *centers about the individual's and the community's attitude toward the Love of Money*. . . . [I]n the Russia of the future it is intended that the career of money-making, as such, will simply not occur to a respectable young man as a possible opening, any more than the career of a gentleman burglar or acquiring skill in forgery and embezzlement. Even the most admirable aspects of the love of money in our existing society, such as thrift and saving, and the attainment of financial security and

> independence for one's self and one's family, whilst not deemed morally wrong, will be rendered so difficult and impracticable as to be not worthwhile.

Even in the contemporary Russia he was observing, Keynes ([1931] 1963, p. 304) detected evidence of the denigration of money-making, remarking that "[t]he private trader is a sort of permitted outlaw, without privileges or protection, like the Jew in the Middle Ages—an outlet for those who have overwhelming instincts in this direction, but not a natural or agreeable job for the normal man." Keynes ([1931] 1963, p. 304) deems a society which treats money-making in this manner "a tremendous innovation."

In comparison to communism, Keynes ([1931] 1963, pp. 306–07) portrays capitalism as "absolutely irreligious, without internal union, without much public spirit, often, though not always, a mere congeries of possessors and pursuers." In order to survive in the face of its profound spiritual poverty and in the teeth of "religious Communism," capitalism must prove itself to be not merely more efficient than communism but many times more efficient. In Keynes's estimation, however, capitalism at the beginning of the twentieth century had proven itself to be only "moderately successful." In fact, in breach of another tenet of the Marshallian faith, Keynes wonders whether capitalism is losing its efficacy, and therefore its limited value, as a means of economic progress and social transformation.

Keynes ([1931] 1963, p. 307) confesses his doubts in the following terms:

> We used to believe that modern capitalism was capable, not merely of maintaining the existing standards of life, but of leading us gradually into an economic paradise where we should be comparatively free from economic cares. Now we doubt whether the business man is leading us to a destination far better than our present place. Regarded as a means he is tolerable; regarded as an end he is not so satisfactory.

If capitalism is not leading toward the millennium, then Keynes ([1931] 1963, p. 307) questions "whether the material advantages of keeping business and religion in different compartments are sufficient to balance the moral disadvantages." He explicitly rejects the "Protestant and Puritan" view that

business and religion naturally belong to different domains, as well as the view of the Marshallian "believer in progress," who affirms capitalism "as the means to the establishment of heaven upon earth hereafter." In their place, Keynes counsels a radically present-oriented, Moorite "third state of mind," which exalts the pursuit and enjoyment of the ethical good in the here and now.

According to Keynes ([1931] 1963, pp. 307–08), those who have attained to this third state of mind:

> do not fully believe either in a heaven which is elsewhere or in progress as a sure means towards a heaven upon earth hereafter; and if heaven is not elsewhere and not hereafter, it must be here and now or not at all. If there is no moral objective in economic progress, then it follows that we must not sacrifice, even for a day, moral to material advantage—in other words, that we may no longer keep business and religion in separate compartments of the soul.

Whether or not capitalism remains a useful means for further amelioration of the economic problem, Keynes affects no doubt as to its degraded moral quality, because it distracts men from the immediate enjoyment of exalted mental states, while absorbing their minds and lives in the love and pursuit of money and in its accumulation for an ever-receding future. Thus Keynes ([1931] 1963, p. 308) concludes that "it seems clearer every day that the moral problem of our age is concerned with the love of money, with the habitual appeal to the money motive in nine-tenths of the activities of life, with the universal striving after individual economic security as the prime object of endeavor, with the social approbation of money as the measure of constructive success, and with the social appeal to the hoarding instinct as the foundation of the necessary provision for the family and for the future."

In "Am I a Liberal?" also first published in 1925, Keynes ([1931] 1963, pp. 323–38) embraces the theory of stages of economic development outlined by the American institutionalist, Joseph R. Commons. Commons's first epoch, the Era of Scarcity, is marked by very little individual liberty and a great deal of coercive control exercised by governmental and other institutions. This, Keynes (1925, p. 334) tells us, was "the normal state of the world up to (say) the fifteenth or sixteenth century." The transition to Commons's Era of Abundance occurred in the

seventeenth and eighteenth centuries and culminated "gloriously in the victories of *laissez-faire* and historic Liberalism" in the nineteenth century (Keynes [1931] 1963, pp. 334–35). In this epoch, individual liberty is given its full head and coercive political control is minimized.

The contemporary world, according to Keynes and to Commons, was in transition to the third stage, characterized by Keynes as the Era of Stabilization. Keynes ([1931] 1963, p. 335) argues that progress into this stage requires "[t]he transition from economic anarchy to a regime which deliberately aims at controlling and directing economic forces in the interests of social justice and social stability. . . ." No longer can "the economic Juggernaut [be] allowed to crash along the highway of Progress without obstruction and even with applause," as it was allowed to do in the nineteenth century (Keynes [1931] 1963, p. 337). For Keynes ([1931] 1963, p. 335), "*laissez-faire* individualism and the free play of economic forces" have outlived their usefulness while socialism offers no better alternative because both are "Sprung from the presuppositions of the Era of Abundance."

Like Moses, capitalism had gotten society within sight of the promised land but was morally unfit to enter. Now, Keynes believed, an alternative system must be devised and readied to secure humanity in its impending enjoyment of millennial bliss. Yet a more immediate source of concern for Keynes involved certain defects which he perceived in the technical operation of *laissez-faire* capitalism, particularly in the area of money, and which needed to be remedied to assure a smooth transition to the millennium. It was the task and destiny of what Keynes ([1931] 1963, pp. 335, 337) referred to as the "New Liberalism" to prepare the solutions to the immediate technical problems of the transition as well as to "invent new wisdom for a new age."

Unlike Marshall, Keynes did not foresee a spontaneous remedy for capitalism's technical shortcomings and moral failings in the replacement of the profit motive by Victorian chivalry. It was on this issue that Keynes abandoned Marshall for Burke.

Keynes's Burkean tract "The End of Laissez Faire," which first appeared in print in 1926, proposes an "Agenda of State," which is aimed at effecting "improvements in the technique of modern Capitalism by the agency of collective action" (Keynes [1931] 1963, p. 319). The criterion governing these agenda, according to Keynes ([1931] 1963, p. 317), is not to replace

private decisionmaking with State decisionmaking but relates "to those decisions which are made by *no one* if the State does not make them." Three examples of the applicability of State agenda are given by Keynes.

First there are the "economic evils" associated with risk, uncertainty, and ignorance, including inequality of wealth, unemployment of labor, and reduction of efficiency and production. The State agendum in this matter lies in "deliberate control of the currency and of credit by a central institution" and "the collection and dissemination on a great scale of data relating to the business situation," including the legally coerced publication of all useful business facts (Keynes [1931] 1963, pp. 317–18). (Regarding the latter, business secrecy had been an especial bugbear of Marshall's.)

The second example Keynes ([1931] 1963, pp. 318–19) offers refers to saving and investment. In this area, the State agendum is to provide "a co-ordinated act of intelligent judgment" regarding how much the nation should save, what proportion of aggregate savings should be invested abroad, and whether the private capital market is channeling domestic investment to the most productive uses.

The third agendum of State mentioned by Keynes ([1931] 1963, p. 319) is control of the quantity and quality of the national population. Keynes still has enough of the classical economist in him to fear that the Malthusian devil may forever bar the door to the millennium by wasting the fruits of capital accumulation on sustenance for an ever-expanding population. Keynes's reference to the Marshallian devil of a genetically incorrigible residuum is veiled and tentative: "The time may arrive . . . when the community as a whole must pay attention to the innate quality as well as to the mere numbers of its future members" (Keynes [1931] 1963, p. 319).

Having contrived Burkean expedients for overcoming problems in its technique, Keynes once again expresses satisfaction, if only half-heartedly, that capitalism is capable of producing steady progress toward the millennium. Nevertheless, he is even more firmly convinced that a new system, which is consistent with Moorite ethical precepts, must be excogitated as a final replacement for the spiritually desolate capitalism. Donning the mantle of the millennialist prophet, Keynes boldly proposes to undertake this task by consulting his internal gnosis. Thus, he (Keynes [1931] 1963, pp. 321–22) concludes that:

> capitalism, wisely managed, can probably be made more efficient than any alternative system yet in sight, but that in itself it is in many ways extremely objectionable. Our problem is to work out a social organization which shall be as efficient as possible without offending our notions of a satisfactory way of life.
>
> The next step forward must come, not from political agitation or premature experiments, but from thought. We need by an effort of the mind to elucidate our own feelings. . . . We need a new set of convictions which spring naturally from a candid examination of our own inner feelings in relation to the outside facts.

Apparently, Keynes took seriously the task he set himself in 1926 and he pondered long and hard on the problems of social evolution in the next few years. In 1930 he published "Economic Possibilities for Our Grandchildren," which is based on ideas expressed in a speech in early 1928 and wherein is presented a fully developed theory of humanity's path to "our destination of economic bliss" (Keynes [1931] 1963, p. 373). In particular, Keynes provides answers to some of the questions he raised in previous articles. Most importantly, he foretells the process by which human nature will be spontaneously purged of the pecuniary motive without the necessity of institutional transformation.

While some of Keynes's disciples, including Harrod (1951, p. 399), discount its significance as a serious expression of Keynes's ideology, Hession (1984, p. 242) has insightfully characterized this article as "an important statement of his personal philosophy or *Weltanschauung*. . . . Indeed, this essay may be regarded as analogous to Marshall's 'Possibilities of Economic Chivalry' or to John Stuart Mill's speculations on the 'Stationary State,' both well-known examinations of the future of Western Society."

Significantly, in 1930, Keynes ([1930] 1958) also published his *Treatise on Money*, which he had been working on during the previous five years and which can be seen as a technical guide for carrying out the State's agenda with respect to the "gaps" in modern capitalism caused by uncertainty, foreign investment, and the lack of a mechanism for equating saving and investment. As I shall argue below, the *Treatise* was intended by Keynes to be a handbook to guide Burkean policymakers in their charge of

keeping society on course and on time in the last leg of its journey to the millennium.

Keynes begins "Economic Possibilities" by emphatically reaffirming his faith in the continuation of economic progress in the face of widespread and growing doubt attributable to the slowdown of economic activity that was beginning to take hold in the world economy in 1930. In fact, Keynes regards the downturn, quite sanguinely, as evidence of the transition to the next stage of history. Opines Keynes ([1931] 1963, p. 358): "We are suffering, not from the rheumatics of old age, but from the growing-pains of over-rapid changes, from the painfulness of readjustment between one economic period and another. The increase of technical efficiency has been taking place faster than we can deal with the problem of labor absorption; the improvement in the standard of life has been a little too quick. . . ."

As merely a problem of the transition, the downturn can be remedied by the implementation of the appropriate State agendum. However, Keynes's express purpose in this essay is not to treat short-term problems of economic management but "to take wings into the future" and to reveal his new intuitions regarding the course of the long-term evolution of British economy and society (Keynes [1931] 1963, p. 360). He begins by presenting a more detailed stage theory of history, which focuses almost exclusively on capital accumulation as the agent of social transformation. The first stage of history spans the period from 2,000 B.C. to 1,700 A.D. and is characterized by a stagnant standard of life for the average man dwelling in the centers of civilization due "to the remarkable absence of important technical improvements and to the failure of capital to accumulate" (Keynes [1931] 1963, p. 360). Keynes's intuition leads him to speculate that, during some epoch before the dawn of recorded history, "there must have been an era of progress and invention comparable to that in which we live today" (Keynes [1930] 1963, p. 361).

Following, then, what we might call the pre-historical and pre-modern eras is the third stage or "modern age." Keynes ([1930] 1963, p. 361) holds that the transition to the modern age was precipitated by "the accumulation of capital which began in the sixteenth century" with the influx of gold and silver from the Americas into Spain. Once begun, the process of capital accumulation begets its own continuous growth through the wondrous power of compound interest. Gone is Keynes's belief,

expressed in the *Economic Consequences of the Peace*, that capital accumulation depends on psychologically unstable and irrational motives to save. The link between saving and investment is explicitly severed in the *Treatise* and Keynes is already halfway to the views of the *General Theory* that saving actually impedes the process of capital investment and destroys its fruits. Thus, in the latter work, saving is considered the enemy of social evolution and of the ethical good, to be shown no quarter and hounded unto death polemically.

For now, Keynes ([1931] 1963, p. 361) writes: "From that time [of the influx of the precious metals into Spain] until today the power of accumulation by compound interest, which seems to have been sleeping for many generations, was re-born and renewed its strength. And the power of compound interest over two hundred years is such as to stagger the imagination."

The modern age is also "the great age of science and technical inventions," the beginning of which Keynes ([1931] 1963, p. 363) dates from the sixteenth century and which has been "in full flood" since the start of the nineteenth century. Keynes estimates that a one-hundredfold increase of the capital stock combined with rapid technological advance have worked to raise the contemporary standard of life in Europe and the United States fourfold since the end of the pre-modern era. So rapid has been the advance of labor-saving technology in the decade of the 1920s in Europe, and especially in the United States, that it has unleashed a new economic affliction which Keynes ([1931] 1963, p. 364) labels "technological unemployment." Thus, for the Keynes ([1931] 1963, p. 364) of 1930, the contemporary employment situation is only "a temporary phase of maladjustment" and is, in fact, a welcome harbinger of the impending dawn of the millennium. According to Keynes ([1931] 1963, pp. 364–65), "All this means in the long run [is] *that mankind is solving its economic problem*. I would predict that the standard of life in progressive countries one hundred years hence will be between four and eight times as high as it is today."

For support of his assertion that scarcity is a transitory historical stage, rather than a fundamental and categorial precondition of human life and action, Keynes draws on the Marshallian classification of wants. He distinguishes between two classes of wants, which he designates as "absolute" and "relative" respectively. Wants of the second class, which are based on a desire to attain superiority over one's fellows, very well may be

insatiable "for the higher the general level, the higher still are they" (Keynes [1931] 1963, p. 365). However, in the case of absolute wants, "a point may soon be reached, much sooner perhaps than we are all of us aware, when these needs are satisfied in the sense that we prefer to devote our further energies to non-economic purposes" (Keynes [1931] 1963, p. 365). With his typical gnosticism, Keynes ([1931] 1963, p. 366) then reveals to his readers that, assuming no significant wars or growth in population, the economic problem will be solved or "in sight of solution" within one hundred years and that, therefore, the economic problem is not "the permanent problem of the human race."

Echoing Marshall, Keynes ([1931] 1963, p. 367) characterizes the "real" and "permanent" problem confronting man as "how to use his freedom from pressing economic cares, how to occupy the leisure, which science and compound interest will have won for him, to live wisely and agreeably and well." In other words, the problem is one of adjusting human nature to the millennium, and, not surprisingly, it is a problem to which Moore's philosophy is the ready-made solution.

The problem stems from the fact that, from its very creation, humanity has been in a death match with scarcity and, thus, has been "expressly evolved by nature" to solve the economic problem. The impending solution of the latter problem therefore deprives humankind "of its traditional purpose." The consequence is that the "ordinary man" will be required to cast aside, within the space of a few decades, inbred habits and instincts that have served him for centuries (Keynes [1931] 1963, p. 366).

Failure to come to grips with this problem will result, according to Keynes ([1931] 1963, p. 366), in a "general 'nervous breakdown,'" quite like the condition afflicting the wives of the well-to-do in the United States and England of Keynes's time. In fact, it is these women who are humanity's vanguard in the millennium. It is they "who have been deprived by their wealth of their traditional tasks and occupations—who cannot find it sufficiently amusing, when deprived of the spur of economic necessity, to cook and clean and mend, yet are quite unable to find anything more amusing" (Keynes [1931] 1963, p. 367). In general, the wealthy are humanity's "advance guard" in the millennium, "who are spying out the promised land for the rest of us and pitching their camp there," and, for the most part, they have "failed disastrously . . . to solve the problem which has

been set them" (Keynes [1931] 1963, p. 368).

Despite the failures of the vanguard, Keynes is confident that right thinking can serve as a guide in the millennial "age of leisure and of abundance," and he maps out the steps that must be taken in this direction. In general, his plan involves abandoning the long-accepted attitudes toward activities and morals that evolved in response to the economic problem and inculcating Moorite attitudes in their stead. In particular, attitudes toward work, money, purposefulness, and futurity must undergo radical transformation.

In the case of work, it is to be recognized as an activity which, in small doses, is necessary to human contentment or will be for ages to come. Keynes ([1931] 1963, p. 369) recommends that the work still to be performed in the millennium be spread very thinly so that everyone might content himself with a fifteen-hour work week carried out in three-hour shifts.

There must also be great changes in the code of morals. This is to be purged of the "pseudo-moral principles" which "have exalted some of the most distasteful of human qualities into the position of the highest virtues" but which were nonetheless necessary to foster the accumulation of capital (Keynes [1931] 1963, p. 269). For example, the desire to possess money, valueless and irrational in itself and finally rendered useless as a means, will be seen for what it is: according to Keynes ([1931] 1963, p. 369), "a somewhat disgusting morbidity, one of those semi-criminal, semi-pathological propensities which one hands over with a shudder to the specialists in mental disease." The same reappraisal will take place with regard to customs and practices involving the distribution of wealth and income, which while "distasteful and unjust in themselves," are "tremendously useful in promoting the accumulation of capital" (Keynes [1931] 1963, pp. 369–70).

Moreover, for Keynes, the individual's pursuit and accumulation of wealth is only a subspecies of purposive behavior. Such behavior, as Keynes recognizes, implies the logical and temporal separation of means and ends: all action employs means in the present and is aimed at achieving an end in the more or less remote future (Mises 1966, pp. 100–01). The elements of futurity and teleology inherent in purposive action, however, offend Keynes's Moorite notion of the good, involving as they do the sacrifice of immediate and direct experience of timeless, self-contained, and intrinsically valuable mental states. As Mises (1966, p. 100) points out, "[f]or contemplative

meditation, time is only duration," with no distinction between present and future; it is purposeful action "that provides man with the notion of time and makes him aware of the flux of time. . . . [I]t is not recollection that conveys to man the categories of change and of time, but the will to improve the conditions of his life."

Thus, as Keynes also recognizes, the very notion of present and future is ineluctably bound up with purposiveness. From the insight that action is necessarily aimed at the future, however, Keynes ([1931] 1963, p. 370) incorrectly deduces a non-marginal or absolute preference to postpone present consumption *forever* into the future or, in the terminology of the later *General Theory*, a "propensity to save." This leads him to lash out at the seeming irrationality of purposeful activity:

> For purposiveness means that we are more concerned with the remote future results of our actions than with their own quality or their immediate effects on our own environment. The "purposive" man is always trying to secure a spurious and delusive immortality for his acts by pushing his interest in them forward into time. He does not love his cat but his cat's kittens; nor, in truth, the kittens, but only the kittens' kittens, and so on forward for ever to the end of cat-dom (Keynes ([1931] 1963, p. 370).

If Keynes had fully grasped the time preference theory of interest, he would have been aware that acting man does not demonstrate an *absolute* preference for future satisfactions (which, of course, implies forever postponing consumption in the present) but *discounts* future vis-à-vis present satisfactions. All other things equal, human beings, acting in isolation or on the market, will only save and invest resources in provision for the future, if such investment promises a level of future consumption that exceeds the sacrificed present consumption by an amount that overcomes their subjective time preferences. The rate of interest, then, is the catallactic reflection of the universal phenomenon of time preference.

At this point in time, however, Keynes construes capital as an independently productive factor, coordinate with land and labor and automatically generating an interest return (a view which he was to renounce in the *General Theory*). Keynes thus sees the phenomenon of compound interest, not as a categorial

implication of action, but as simply another rationalization for the delusive future orientation of purposive action. For Keynes, interest serves to reinforce and reward an innate or evolved propensity to wealth accumulation present in human beings of the "modern age." This explains Keynes's strange and oblique reference to the Jews in the following terms: "Perhaps it is not an accident that the race which did the most to bring the promise of immortality into the heart and essence of our religions has also done the most for the principle of compound interest and particularly loves this most purposive of human institutions" (Keynes [1931] 1963, p. 371).

Once the burden of scarcity and the need for capital accumulation have been eliminated, the human race will at long last be free to return to what Keynes ([1931] 1963, p. 371) calls "some of the most sure and certain principles of religion and traditional virtue" as its guide in the millennium. Keynes ([1931] 1963, pp. 371–72) recites and extols these Moorite virtues, while condemning the vices associated with purposiveness, in terms worthy of the Sermon on the Mount:

> avarice is a vice, . . . the exaction of usury is a misdemeanor, and the love of money is detestable, . . . those walk most truly in the paths of virtue and sane wisdom who take least thought for the morrow. We shall once more value ends above means and prefer the good to the useful. We shall honor those who can teach us how to pluck the hour and the day virtuously and well, the delightful people who are capable of taking direct enjoyment in things, the lilies of the field who toil not, neither do they spin.

But, counsels Keynes ([1931] 1963, p. 372), a century yet must pass before such values can be embraced and, so, "[a]varice and usury and precaution must be our gods a little while longer." Even so, Keynes ([1931] 1963, p. 373) encourages "mild preparations for our destiny" in the form of experiments in "the arts of life" as well as in "the activities of purpose."

The Renunciation of Marshallian Orthodoxy

As the 1930s wore on and the world economic crisis deepened, however, Keynes began to doubt that capitalism as constituted could ever bring about the ripening of the modern age into the

millennial. Beset by this growing doubt, Keynes was inspired to rethink the economics of capitalism and the implied State agenda as these were presented in the *Treatise on Money* in 1930. His exhortation—as expressed in his popular writings—to experiment in the "activities of purpose," i.e., in the institutions and organization of the economy, became more insistent.

As his thought evolved during this period, Keynes came increasingly to believe that the sins of "avarice, usury, and precaution" (which, in the language of the *General Theory*, became "liquidity preference, interest payments to the *rentier*, and saving"), not only were evil and had no use in the paradisiacal age of leisure and abundance, but were at the root of the economic instability and stagnation of the present age of economic scarcity and therefore must be expunged by the State. It was at this point that Keynes's intuition suggested the extension of the Moorite perspective from personal ethics and social philosophy to technical economics.

In fact, we already see this beginning to occur in the *Treatise*. Here, Keynes breaks the link between saving and investment, theorizing that investment and capital growth can occur without necessitating saving to an equal extent and, conversely, that saving can occur without generating equal investment, an insight which Keynes, under the influence of Dennis Robertson, incorporated into his thought as early as 1926 (Patinkin 1976, pp. 36, 46, 50, 124). However, while Robertson and the early Keynes argued that excess investment and excess saving were the consequences of and equal to bank credit expansion and contraction, respectively, the later Keynes explicitly and emphatically repudiates this view in controversy with Robertson and Hayek (Patinkin 1976, pp. 28, 30–31). From the later perspective of the *Treatise*, Keynes (1973, p. 251) argues that "[s]aving and investment can get out of gear without any change on the part of the banking system from 'neutrality' as defined by Dr. Hayek, merely as a result of the public changing their rate of saving or the entrepreneurs changing their rate of investment, *there being no automatic mechanism in the economic system to keep the two rates equal*" [Emphasis added].

Thus Keynes in the *Treatise* identifies saving-investment disequilibria as arising from within the capitalist economy itself, and therefore necessitating a Burkean State agendum to match decentralized decisions to save and to invest. Moreover, these disequilibria create instabilities in prices and output, causing what Keynes calls "credit cycles." Taking direct aim at the sinful

"love of money as a possession," Keynes ([1930] 1958, pp. 2, 347) attributes such disequilibria to the increased "bearishness" of a public, which, in the grip of heightened uncertainty about the future, is suddenly possessed of an increased "propensity to hoard" savings deposits and forego ownership of securities. This irrational behavior drives the long-term rate of interest above its equilibrium level thereby driving down "the value and volume of new investment."

In fact, the *Treatise* was written with the primary purpose of setting out detailed State agenda for "the control of the rate of investment," and, therefore, of capital accumulation and the *pace* of the approach to the millennium. This is consistent with Keynes's statement at the end of "Economic Possibilities for Our Grandchildren" (Keynes [1931] 1963, p. 373) that "[t]he pace at which we can reach our destination of economic bliss will be governed" by, among other things, "the rate of accumulation as fixed by the margin between our production and our consumption."

Not surprisingly, as Patinkin (1976, pp. 125–26 6n) has pointed out, the *Treatise* is infected with a "magic-formula mentality." Surely someone who is blessed with knowledge of history's final goal can be presumed to have the formula for reaching that state. Thus, Keynes (1973, p. 354) himself refers to the *Treatise*'s "fundamental equations" of price-level determination as "my secret" to the explanation and, presumably, to the remedy of booms and slumps. The remedy Keynes advocates in the *Treatise* for disequilibrium between saving and investment is bank rate and Treasury bill policy. Especially during a slump, Keynes believed that central bank action designed to lower interest rates and spur investment must be complemented by international central bank cooperation or, if cooperation is either not forthcoming or not successful, supplemented by government borrowing for expenditures on public works (Patinkin 1982, pp. 205–07).

Patinkin (1976, p. 55) characterizes the development of Keynes's technical economic thought between the publication of the *Treatise* and the publication of the *General Theory* as progressing through three stages. These stages can be related to the progressive shattering of Keynes's Marshallian faith, under the impact of the Great Depression, in the efficacy of contemporary capitalism to maintain a rate of capital accumulation sufficiently high to see society through the transition to the millennium within a reasonable period of time,

i.e., Keynes's prophesied one hundred years. In the face of his lapsing faith in the Marshallian orthodoxy, Keynes began to formulate a deliberately "heretical" economics which emphasized the Moorite value of radical present orientation in private and governmental spending decisions as the key to restarting and maintaining the engine of capital accumulation on the road to the age of leisure and abundance. Conversely, the new faith sought to "criminalize" saving, particularly the piling up of idle and barren money balances, and the taking of interest as the main impediments to capital accumulation.

In 1930, although he declared that the desire to possess money as an end in itself would be recognized as a "semi-pathological, semi-criminal propensity" in the coming age of abundance and leisure, Keynes did not dissent in the slightest from the orthodox Marshallian economic doctrine that such a propensity was necessary to the achievement of permanent victory over economic scarcity. However, by the time the *General Theory* was published in 1936, the moral crimes of "liquidity preference" and "the propensity to save" stood indicted by Keynes, the Moorite heretic, as the main obstructions on the road to the solution of the economic problem. In explicit opposition to Marshall's belief that the constraint on capital accumulation is to be explained by "the preference which the great mass of humanity have for present over deferred gratifications," Keynes ([1936] 1964, p. 242), writing in the *General Theory*, propounded the doctrine that the paucity of accumulated capital "after several millennia of steady individual saving . . . is to be explained . . . neither by the improvident propensities of mankind, nor even by the destruction of war, but by the high liquidity-premiums formerly attaching to the ownership of land and now attaching to money."

Let us now examine the process by which, during the crucial period of 1930–36, Keynes transformed his technical economics by the infusion of Moorite insights. In the first stage of this transformation, (which by Patinkin's account lasted through 1931), Keynes was engaged in what Patinkin (1976, p. 55), borrowing Moggridge's terminology, calls the "arguing out of the *Treatise*." During this time Keynes continued to adhere to the technical economics and policy prescriptions of the *Treatise* and, on the broadly philosophical side, to his earlier belief that current institutional arrangements would continue to produce steady progress to the millennium. Nonetheless, toward the end of this period, Keynes waxed increasingly critical of the role of

saving in perpetuating Britain's slump and was perfervid in his advocacy of a massive increase in public and private spending as the cure for the depression.

In an article published in January 1931, Keynes ([1931] 1963, pp. 152–54) declaimed against increased thrift and in favor of unleashing "the improvident propensities" of both consumers and government as a remedy for depression:

> The best guess I can make is whenever you save five shillings, you put a man out of work for a day. Your saving that five shillings adds to unemployment to the extent of one man for one day—and so on in proportion. On the other hand, whenever you buy goods you increase employment—though they must be British, home-produced goods if you are to increase employment in this country. . . .
>
> Therefore, oh patriotic housewives, sally out tomorrow early into the streets and go to the wonderful sales which are everywhere advertised. . . . Lay in a stock of household linen, of sheets and blankets to satisfy all your needs. And have the added joy that you are increasing employment, adding to the wealth of the country because you are setting on foot useful activities. . . .
>
> For what we need now is not to button up our waistcoats tight, but to be in a mood of expansion, of activity—to do things, to buy things, to make things. . . . Now is the time for municipalities to be busy and active with all kinds of sensible improvements. . . .
>
> Nationally, too, I should like to see schemes of greatness and magnificence designed and carried through. . . . For example, why not pull down the whole of South London from Westminster to Greenwich, and make a good job of it—housing on that convenient area near to their work a much greater population than at present, in far better buildings with all the conveniences of modern life, yet at the same time providing hundreds of acres of squares and avenues, parks and public spaces. . . . Would that employ men? Why, of course it would.

The great weight placed on current spending in the foregoing passage and the lack of reference to techniques of

monetary policy in the balance of the article from which it is extracted represents a departure, at least in emphasis, from the agenda Keynes elaborated in the *Treatise* for righting a capitalist economy in a slump. Also, in this passage the view is clearly expressed—which is at the core of the technical economics of the *General Theory* and is not to be found in the *Treatise*—that, in depression conditions, spending *per se* is productive of income.

Despite all this, however, Keynes ([1931] 1963, pp. 155–56), at the end of the article, is at pains to demonstrate that labor productivity and national income are continuing to grow at a healthy clip. He concludes with a stirring reaffirmation of his Marshallian belief that the slump is evidence of an ongoing transition to the millennium:

> Be confident, therefore, that we are suffering from the growing pains of youth, not from the rheumatics of old age. We are failing to make full use of our opportunities, failing to find an outlet for the great increase in our productive powers and our productive energy. Therefore we must not draw in our horns; we must push them out. Activity and boldness and enterprise, both individually and nationally, must be the cure. (Keynes [1931] 1963, p. 156)

In a series of lectures presented in June 1931 and published the same year, it is evident that Keynes (1973, pp. 343–67) is still analyzing the depression from the philosophical perspective and using the theoretical apparatus of the *Treatise*. Thus, he draws attention to the worldwide investment boom which occurred in the lustrum 1925 to 1929, speculating that "[a] very few more quinquennia of equal activity might, indeed, have brought us near to the economic Eldorado where all our reasonable economic needs would be satisfied" (Keynes 1973, p. 348).

In a polemical swipe at supporters of the Mises-Hayek theory of the business cycle, represented in Great Britain by Lionel Robbins and other economists associated with the London School of Economics, Keynes (1973, p. 349) chastises those "austere and puritanical souls" who hold that the investment boom was inflationary and unsound and, therefore, requires a period of liquidation. For Keynes, any acquiescence in a period of "prolonged liquidation" of previous capital investments postpones or even reverses progress toward the millennium. The

thing is to get the aborted investment boom restarted as quickly as possible. What is required, according to the "magic formula" of the *Treatise*, is to restore business confidence and profits via "a drastic fall in the long-term rate of interest" (Keynes 1973, p. 359).

Striking a Burkean note, Keynes (1973, p. 365) emphasizes that it is "the prime object of financial statesmanship" to insure that the long-term rate of interest is properly adjusted to "the technical possibilities of [the] age," so as to produce equality between the volume of savings and the demand for new capital. Failure to achieve such equality will not only produce cyclical fluctuations but runs the risk of throwing society off its long-run course to economic bliss. Keynes (1973, p. 369) concludes:

> Thus we need to pay constant attention to the long-term rate of interest for fear that our vast resources may be running to waste through a failure to direct our savings into constructive uses and that this running to waste may interfere with that beneficent operation of compound interest which should, if everything was proceeding smoothly in a well-governed society, lead us within a few generations to the complete abolition of economic want.

It is thus clear that Keynes's vision of capitalism during the period of "arguing out the *Treatise*" was still a fundamentally Marshallian one of a self-steering vehicle carrying humanity forward along the road to the millennium. Although this vehicle proceeded unsteadily in fits and starts, Keynes did not doubt that its direction on balance was forward and that it would eventually reach its destination. Extending the metaphor, what the vehicle lacked, according to Keynes, was not so much a pilot as a governor to steady and maximize its rate of speed in order to expedite its journey. In particular, saving and investment rates needed to be governed and equilibrated at the margin by means of continual political manipulations of the long-term interest rate.

As the world and Britain's economic crisis deepened, however, Keynes began to doubt the accuracy of this vision. The vehicle had stopped dead in its tracks and was even threatening to reverse its course. Capitalism had ceased to deliver the goods, now or in the future, as both consumption and investment shrank to drastically low levels. By 1932, Keynes entered into what Patinkin (1976, pp. 55, 61) calls "the formative stage of the

General Theory." It was during this period that Keynes consciously set out to overturn the Marshallian orthodoxy and found a self-proclaimed heretical religion based on Moorite ethics.

In an unpublished two-page note, probably written in 1932, Keynes (1973, pp. 406–07) confesses his apostasy, at the same time revealing the central tenets of his new faith. First, he denies that the capitalist economy embodies "natural forces" which operate to restore output to its "optimum level" whenever it is disturbed. Second, Keynes singles out "the strength of the forces in the community which tend toward saving" as the factor which causes real output to achieve an equilibrium at a level below the optimum. Contrary to the "orthodox theory," which emphasized "the importance of saving as the means of making a community wealthy," Keynes stresses the primacy of investment. He also denounces orthodox policy prescriptions, revealing that "it now seems to me that the economists, in their devotion to a theory of self-adjusting equilibrium, have been, on the whole, wrong in their practical advice and that the instincts of practical men have been, on the whole, sounder."

Keynes (1973, p. 407) also upholds certain policies favored by "uninstructed public opinion and the common sense of the business world" as "tending towards optimum output." These include: "Mercantilist and protectionist policies," which tend to foster foreign investment by improving the balance of trade; "Anti-usury laws and principles and cheap money policies," which reduce the rate of interest thereby spurring domestic investment; and "Expenditure as a thing in itself 'good for trade'" since it decreases saving in excess of investment. These "popular policies" are economically justified, declares, because, under modern capitalism, "it is a normal thing . . . for output to be below the optimum level."

Keynes concludes with the suggestion, which was to become a central insight of the *General Theory*, that an increment in investment will generate the saving necessary to finance itself. Writes Keynes (1973, p. 407): "Thus so far from its being true that, if we look after saving, output and investment will look after themselves, the opposite is more nearly true, namely that, if we look after investment, output and saving will look after themselves. For it is frequently the case in practice that a deliberate increase in saving will diminish investment and hence output . . . while a deliberate increase in investment will increase output and hence saving."

Now, it is true that in 1932, Keynes had not yet elaborated the theoretical structure to properly house these insights. As Patinkin (1973, p. 72) says of this among, other fragments of Keynes's writings in 1932, "[t]he voice is that of the *General Theory*: but the analytical framework is still largely that of the *Treatise*." And, it might be added, the voice is clearly calling for economic salvation through renunciation of the sin of saving. For Keynes, at long last, the precepts of economic rationality have become one with those of virtuous behavior. Virtue receives its reward in this age as well as in the next, after all; and one can have one's economic pie in the millennium and still consume it in the here and now.

In 1933, Keynes published an article entitled "National Self-Sufficiency," whose significance has been downplayed by his followers. Generally, if it is alluded to at all, it is treated as a temporary deviation by Keynes from his internationalist principles in a desperate and ill-advised search for an expedient to alleviate domestic unemployment (Harrod 1951, p. 446; Harris 1955, pp. 186–87; Harris [1947] 1973, pp. 319–22). One of the few to grasp its true import was the neglected international monetary economist Michael A. Heilperin (1962, pp. 111, 116), who referred to the article "for all its brevity, as one of Keynes's most significant writings" and as representing "far more than a passing mood."

Indeed, the article represents much more than Keynes's profession of disbelief—spewed forth in desperation and soon to be retracted—in the classical arguments in favor of free trade and the international division of labor. When considered in the context of the development of his *Weltanschauung*, it is nothing short of Keynes's public declaration of a loss of faith in the ability of capitalism ever to solve the problem of scarcity and deliver society to the promised land. Accordingly, the article also sends forth a clarion call for experimentation with alternative economic institutions and arrangements.

Until this point, Keynes had been unwavering in his view that, despite its intrinsic viciousness, capitalism was tolerable and even indispensable as the means to a future age of abundance in which virtue could be cultivated in comfort and leisure. In this article, Keynes signals a radical departure from this view, arguing now that capitalism is intolerable because it is unable to deliver humanity from scarcity and that it is precisely its lapses from virtue that prevent it from doing so.

Thus Keynes (1933, pp. 760–61) declares that "[t]he

decadent international but individualistic capitalism . . . is not a success. It is not intelligent, it is not beautiful, it is not just, it is not virtuous—and it doesn't deliver the goods. In short, we dislike it, and we are beginning to despise it." However, Keynes does confess to perplexity about what to put in its place, while noting that "the world is embarking on a variety of politico-economic experiments." Russia, Germany, Italy and other countries are or will be seeking "after new economic gods." Keynes (1933, p. 761) expects "many mistakes" to be made in these bold experiments in Bolshevism, Nazism, and Fascism, but "[n]o one can tell which of the new systems will prove itself best."

As Heilperin (1962, p. 114 30n) has pertinently remarked on this passage, "[t]he fact that the 'new economic gods' of Russia, Italy and Germany were totalitarian despotic gods, destructive of human dignity and human rights did not, it seems, appear worthy of note. They were experimenting—that was the wonderful thing about it!" Heilperin's judgment on the implications of Keynes's unbounded zeal for politico-economic experimentation is certainly borne out by Keynes's own revelation in the article that he is "one whose heart is friendly and sympathetic to the desperate experiments of the contemporary world, who wishes them well and would like them to succeed, who has his own experiments in view, and who in the last resort prefers anything on earth to what the financial reports are wont to call 'the best opinion in Wall Street'" (Keynes 1933, p. 766).

Keynes's almost exclusive concern at this point is that capitalism be gotten rid of, so that the world will be free to experiment. What replaces it depends on one's "own fancy." In Keynes's millennialist terminology, "[n]ot believing that we are saved already, we each should like to have a try at working out our own salvation. We do not wish, therefore, to be at the mercy of world forces working out, or trying to work out, some uniform equilibrium according to the ideal principles, if they can be called such, of *laissez-faire* capitalism." Accordingly, Keynes proclaims the dawning of a "transitional, experimental phase" during which "we all need to be as free as possible of interference from economic changes elsewhere, in order to make our own favorite experiments toward the ideal social republic of the future."

While Keynes's "favorite experiment," at least in its economic aspect, must await full elaboration in the *General*

Theory, he does offer suggestive hints in this article. In particular, although he favors "retaining as much private judgment and initiative and enterprise as possible," Keynes (1933, p. 762) reveals that he has "become convinced that the retention of the structure of private enterprise is incompatible with that degree of material well-being to which our technical advancement entitles us, unless the rate of interest falls to a much lower figure than is likely to come about by natural forces operating on the old lines. Indeed, the transformation of society, which I preferably envision, may require a reduction in the rate of interest towards vanishing point within the next thirty years." Economic internationalism, by which Keynes means not only the free movement of goods but especially a structure of interest rates determined on a globally integrated capital market, is thus emphatically rejected by Keynes (1933, p. 763), because it "may condemn my own country for a generation to come to a much lower degree of material prosperity than could be attained under a different system."

The conventional view, therefore, is doubly wrong in contending that, for Keynes, economic autarky represented a temporary expedient for palliating a desperate employment situation in Great Britain. To the contrary, Keynes's overriding concern, as expressed in the last paragraph, is not with "full employment" *per se*, but with what he later refers to as "full investment"; and "greater national self-sufficiency and a planned domestic economy" (Keynes 1933, p. 767) is proposed as a necessary and *permanent* framework for an economic experiment —here only alluded to but fully developed in the *General Theory* (Keynes [1936] 1964, especially chapters 16 and 24)—in which the interest rate is reduced to zero and underinvestment and artificial capital scarcity forever banished from the British Isles.

The long-accepted belief that, in writing the *General Theory*, Keynes was seeking to provide a blueprint for "saving capitalism" from its own instability is thus anachronistic at best. In fact, while this was indeed Keynes's objective in contriving the "magic formulas" of the *Treatise*, he abandoned it after 1931 and certainly by the time he came to plump for indiscriminate politico-economic experimentation and national self-sufficiency in 1933. With respect to capitalism, then, the Keynes of the *General Theory* is not a savior in any sense but a vengeful angel come at last to destroy what is immoral and unaesthetic because it has finally proven useless.

Near the end of his article on "National Self-Sufficiency," as

if to accentuate the radical and irreversible nature of the "reorientation" of his mind, Keynes (1933, pp. 763–65) undertakes what can only be characterized as a diatribe against capitalist society and culture which is as remarkable for its candor as it is for its unrestrained vituperativeness. In this, Keynes recognizes and seizes upon economic calculation in the form of financial accounting as the intellectual foundation of market economy and the calculating mind as the consummate product of social evolution under capitalism. Thus, he contends that consistently judging action by the criterion of "the financial results" transformed the conduct of life in the nineteenth century "into a sort of parody of an accountant's nightmare" (Keynes 1933, p. 763).

Keynes rails against economic calculation because it represents an artificial constraint on the current use of resources, which is imposed by the illusory notion of futurity inherent in purposive action and, thereby, obstructs the living of a bountiful and cultured life in the present. Thus Keynes (1933, pp. 763–64) declares that:

> Instead of using their vastly increased material and technical resources to build a wonder city, the men of the nineteenth century built slums; and they thought it right and advisable to build slums because slums, on the test of private enterprise, "paid," whereas the wonder city would, they thought, have been an act of foolish extravagance, which would, in the imbecile idiom of the financial fashion, have "mortgaged the future"—though how the construction today of great and glorious works can impoverish the future, no man can see until his mind is beset by false analogies from an irrelevant accountancy. . . . For the minds of this generation are still so beclouded by bogus calculations that they distrust conclusions which should be obvious. . . . We have to remain poor because it does not "pay" to be rich. We have to live in "hovels," not because we cannot build palaces but because we cannot "afford" them.

But once one has "reoriented" his mind to an economics imbued by the ethical verities, as Keynes has already done by this time, he is enabled to pierce through the intellectual fog created by economic calculation and perceive clearly that the

active pursuit of virtues and values in the present calls forth and multiplies the bounty of resources necessary to their attainment. In the technical language of the *General Theory*, financing considerations are never a constraint on private (or public) investment, because investment creates the saving needed to finance it and raises present income and consumption into the bargain. As Keynes (1933, p. 764) expresses it here: "If I had the power to-day, I should most deliberately set out to endow our capital cities with all the appurtenances of art and civilization on the highest standards of which the citizens of each were individually capable, convinced of what I could create, I could afford. . . ."

Keynes is especially averse to the "rule of self-destructive financial calculation," when it justifies, for example, through the promotion of free trade, the eradication of activities whose unquantifiable intrinsic value can find no entry into such calculation. Writes Keynes (1933, p. 764): "we have until recently conceived it a moral duty to ruin the tillers of the soil and to destroy the age-long human traditions attendant on husbandry, if we could get a loaf of bread thereby a tenth of a penny cheaper." Such present sacrifices in the name of economic calculation, "this Moloch and Mammon in one," according to Keynes (1933, pp. 764–65), have been carried out with equanimity because of a delusive concern for the future, "for we faithfully believed that the worship of these monsters would overcome the evil of poverty and lead the next generation safely and comfortably, on the back of compound interest, into economic peace."

For Keynes (1933, p. 765), the tragedy of adherence to the old doctrines does not lie in the absolute reduction of the British "standard of life," which, even in 1933, is at a higher level than ever before. It lies mainly in the fact that sacrifices of ethical values and modes of living have been made and made wholly in vain, because capitalism has been unable "to exploit to the utmost the possibilities for economic wealth afforded by the progress of . . . technique." The implication, of course, is the principle of the multiplier by which it is held that, under the normal operation of capitalism, the present "standard of life" need never be diminished and is indeed enhanced by an act of investment, which is aimed at fructifying the future and advancing society closer to the millennium.

Keynes (1933, p. 765) is thus able to conclude that "once we allow ourselves to be disobedient to the test of an accountant's

profit, we have begun to change our civilization." This, of course, is tantamount to the call for the progressive socialization of investment, since the State is the only organization, with its almost unlimited power to appropriate scarce resources via taxation and monetary inflation, that is unconstrained by the criterion of economic calculation. This is realized by Keynes (1933, p. 765), who writes that "[i]t is the state, rather than the individual, which needs to change its criterion. . . . Now if the functions and purposes of the state are to be thus enlarged, the decisions as to what, broadly speaking, shall be produced within the nation and what shall be exchanged with abroad, must stand high among the objects of policy."

Keynes's article on "National Self-Sufficiency" thus presents the core of what Patinkin (1976, p. 95) labels the "antivision" of the *General Theory*. This is the "rejection of the traditional view that there existed in the capitalist world an automatic, self-adjusting mechanism that could be relied upon to maintain an acceptable state of employment" and, I would add, investment. In fact, for Keynes, the attainment of full-employment levels of income and consumption is the consequence of and the present reward for expediting progress to the future state of bliss by deliberately optimizing the rate of investment.

In a radio address on "Poverty in Plenty: Is the Economic System Self-Adjusting?" delivered in 1934, Keynes (1973, p. 488) explicitly ranges himself with "the heretics" who would "demolish the forces of nineteenth-century orthodoxy." Bringing his antivision to bear, Keynes argues that the orthodox or "self-adjusting" school assumes that "the rate of interest adjusts itself more or less automatically, so as to encourage just the right amount of production of capital goods to keep our incomes at the maximum level which our energies and our organization and our knowledge of how to produce efficiently are capable of providing. This is, however, pure assumption."

Thus it is the failure of capitalism to provide the optimum level of investment spending, or, what is the same thing for Keynes, the maximum rate of progress toward the millennium (given prevailing consumption habits) which is the root cause of its technical inadequacy. For Keynes (1973, p. 491) the solution is straightforward and closed to all doubt: "The right course is to get rid of the scarcity of capital goods—which will rid us at the same time of most of the evils of capitalism—whilst also moving in the direction of increasing the share of income falling to those whose economic welfare will gain most by their having the

chance to consume more." Of course, the solution will not emerge spontaneously from the operation of the capitalist system and must be imposed from without by the State, because "[t]he system is not self-adjusting, and, without purposive direction, it is incapable of translating our actual poverty into our potential plenty."

The positive vision of the *General Theory*, then, emerges out of Keynes's deliberate use of Moorite philosophical insights and doctrines to revolutionize the analytical apparatus of Marshallian economic theory in order to provide an explanation of the capitalist economic process that elucidates the causes and consequences of its failure to achieve adjustment at an employment- and investment-maximizing level of output. According to research by Patinkin (1976, pp. 55, 73), the analytical structure of the *General Theory* was completed by mid-1934, and, in the third and final stage of its preparation lasting through 1935, Keynes was engaged in eliciting detailed criticisms of the galley proofs of the book.

As identified by Keynes himself (Patinkin 1976, p. 66), the analytical components the development of which mark entry into the third stage of transition to the *General Theory* consist in the theory of effective demand, the theory of liquidity preference, and the concept of the marginal efficiency of capital. To these three, I would add the generally overlooked scarcity theory of capital, which Keynes adumbrated in the *General Theory* only partly in response to Hayek's stinging criticism of the *Treatise on Money* for lacking reference to a "clear and definite theory of capital" (Hayek 1931, p. 278). Taken together, these four components form a powerful analytical apparatus that permits Keynes to weave a vision in which the sins of futurity and calculation—which characterize purposive action under capitalism—prove also to be irrational, self-defeating, and socially retrogressive. In particular, according to Keynes, attempts by individuals to make monetary and financial provision for the future cause humanity to be less well-provided for in the present and the future.

The *General Theory* as Millennialist Economics

Let me broadly indicate the millennialist ethical orientation of the technical economic analysis of the *General Theory*.

The theory of effective demand transmutes Keynes's Moorite emphasis on present activities and states of being from a recipe

for individual salvation into the true path to the social millennium. Thus, according to Keynes, present employment and income is determined strictly by effective demand which, with the technical conditions of production assumed constant, depends solely upon aggregate spending for consumption and investment activities. While it is evident that consumption is a present activity, investment, as defined by Keynes ([1936] 1964, pp. 62, 104), denotes "the current addition to the value of the capital equipment which has resulted from the productive activity of the period" and therefore involves "present provision for future consumption."

Saving, on the other hand, is defined not in terms of activity but as the passive "residual or margin" between aggregate income and consumption (Keynes [1936] 1964, p. 64). As such, saving in the aggregate cannot be determined independently of the set of decisions relating to consumption and investment (Keynes [1936] 1964, p. 65). In the words of Abba Lerner (1983, p. 394): "With *S* thus almost completely sterilized (as nothing but the conceptual arithmetic difference between actual income and actual consumption) it became easier to concentrate on analyzing only the actual constituents of income and sources of employment, *C* and *I*."

With consumption rigidly determined by the propensity to consume—according to Keynes ([1936] 1964, pp. 96–97), a "fairly stable function" and one of the "more permanent psychological propensities"—investment spending becomes the sole factor determining levels of present as well as of future income and consumption. Hence "employment can only increase *pari passu* with an increase in investment; unless, indeed there is a change in the propensity to consume" (Keynes [1936] 1964, p. 98). Nor does an increase in investment require an antecedent increase in saving because, according to "the fundamental psychological law" governing the marginal propensity to consume, an increment to social income always calls forth a positive but less than equal increment to consumption. Thus, as income increase, it induces an automatic increase in saving in the form of an expansion of the absolute size of the gap between income and consumption. The multiplier sums up the process by which, with a given marginal propensity to consume, an increase of investment results in a rise in the level of income sufficient to generate the additional saving necessary to finance itself.

From Keynes's ethical standpoint, the multiplier apparatus is a masterstroke because it permits him to argue that investment

promotes higher standards of income and consumption in the present as well as in the future. The all-important growth in society's capital stock is no longer dependent on the semi-pathological, semi-criminal, and, in any event, unethical propensity to abstain from present enjoyments in order to provide for a chimerical and ever-receding future. The ethical maxim of the Sermon on the Mount is thus transformed into the eminently practicable policy prescription of rational economics: those who would be well cared for, in the present and in the future, are those who do not trouble themselves overmuch about provision for the future.

But Keynes is not satisfied merely with demonstrating that individual efforts to provide for the future by financial accumulation are superfluous to the process by which social income and capital are created; he seeks to portray private saving as self-defeating and socially destructive. Here, again, the concepts of effective demand and the multiplier are ready at hand. Any attempt by an individual to increase saving by accelerating the rate at which he "pile[s] up claims to enjoyment which he does not intend to exercise at any definite time" (Keynes [1936] 1964, p. 131), *ipso facto*, lowers the propensity to consume and causes a slackening of effective demand. The result is a destruction of social income whose size is a determinate multiple of the original reduction in consumption.

However, the social ravages of vicious and irrational precaution do not end with reductions in the current income level; the greater enormity lies in its retardation of the growth of the capital stock, resulting from the circumstance that estimates of the prospective yield rate or marginal efficiency of capital partly depend on "the strength of the existing consumers' demand for goods that require for their efficient production a relatively larger assistance from capital" (Keynes [1936] 1964, p. 147). For Keynes ([1936] 1964, p. 106), therefore, "every weakening in the propensity to consume regarded as a permanent habit must weaken the demand for capital as well as the demand for consumption." Thus, a decline in investment due to a weakening propensity to consume reduces potential future income and living standards at the same time that it aggravates the declines in current levels of effective demand, income, and consumption.

The ultimate and cruel irony, of course, is that the individual's attempt to increase saving is incapable of generating a realized increase of saving in the aggregate and, in fact, serves

to reduce aggregate realized saving, since the margin between income and consumption, as determined by the marginal propensity to consume, necessarily narrows as the level of income decreases. As Keynes ([1936] 1964, p. 65) puts it, "A decision to consume or not to consume truly lies within the power of the individual; so does a decision to invest or not to invest." But aggregate saving is merely one of the "*results* of the free choices of individuals whether or not to consume and whether or not to invest. . . ."

Based on his economic analysis of saving as a self-frustrating and socially deleterious activity, Keynes ([1936] 1964, p. 161) contemplates, as "the only radical cure" for economic crises, that saving be outlawed, that is, that the individual be allowed "no choice" between spending his income on consumption or investment in a "specific capital asset" and saving it in the form of cash hoards or debt purchases. As we shall see, however, Keynes ultimately opts for an alternative set of policies involving the socialization of investment and the euthanasia of the rentier via the reduction of the rate of interest to zero.

This brings us to the marginal efficiency of capital (MEC), which Keynes defines as the prospective rate of return on an increment of monetary investment in the current production of capital goods. For Keynes ([1936] 1964, p. 145), the MEC schedule "is of fundamental importance because it is mainly through this factor (much more than through the rate of interest) that the expectation of the future influences the present." In this passage, the parenthetical remark about the rate of interest underscores Keynes's determination to maintain a rigid analytical distinction between the concepts of the MEC and the rate of interest. Indeed, Keynes ([1936] 1964, pp. 192–93) devotes a special excursus to refuting those Austrian-Wicksellian interest theorists, such as Mises, Hayek, and the early Alvin Hansen, who identify the basic rate of interest with the rate of price differentials between the products of successive stages of the structure of production. These writers, as well as Keynes of the *Treatise* (Keynes [1936] 1964, pp. 173–74), stand accused of "confusing the marginal efficiency of capital with the rate of interest."

The apparent eagerness with which Keynes seeks to disentangle the two concepts can be explained by their different standings in terms of his ethical thought. The MEC represents a return to a current and productive activity, investment, which is legitimately, even nobly, future-oriented. In Keynes's words,

"[t]he social object of skilled investment should be to defeat the dark forces of time and ignorance which envelope our future" (Keynes [1936] 1964, p. 155). The rate of interest, in contrast, is a sop to avarice, a "bribe" paid to the nonproductive saver to induce him to part with liquidity, an irrational and nugatory provision for the future.

For Keynes, the all-important task of estimating the prospective rate of return on newly-produced capital equipment is apt to be badly done under capitalism, because open markets and monetary calculation tend to promote irrational expectations of the more remote future. Keynes's argument runs briefly as follows: The knowledge which governs our expectations of the outcome of a long-term investment rests on an extremely precarious basis at best and "is usually very slight and often negligible" (Keynes [1936] 1964, p. 149). Thus, were it not for the fact that human beings take direct pleasure in the riskiness and activity of constructing factories and farms, not much investment would be undertaken "merely as a result of cold calculation" (Keynes [1936] 1964, p. 150). However, under modern capitalism, it is precisely considerations of cold calculation which predominate in investment decisions, because the irrational striving for liquidity has led to the emergence of the stock exchange, an organized market on which investments may be resold and revalued on a daily or even hourly basis.

The result is that most investments come to be "governed by the average expectation of those who deal on the stock exchange as revealed in the price of shares, rather than by the genuine expectations of the professional entrepreneur." Hence, for example, if an existing investment can be had on the stock market at a purchase price below the cost of constructing a new investment of a similar type, this class of investment will be discouraged regardless of its prospective yield. Moreover, the average investor, because his knowledge of the factors governing the prospective yield of the various investment opportunities is virtually nil, bases his decisions on an "arbitrary convention," according to which it is assumed that the existing market valuation of the investment reflects the existing knowledge of the facts which determine its yield and is therefore "uniquely correct" (Keynes [1936] 1964, pp. 152–53). A change in the investment's market value will only occur, therefore, as a result of the (presumably slow and orderly) revision of knowledge as new and relevant facts come to light.

However, such "conventional valuation," in actuality, is not

based on genuine, if incomplete, knowledge of the future laboriously accumulated by the experts, but on the "state of confidence" of the mass of ignorant investors, which reflects their vague, uninformed, and mercurial doubts, fears, and hopes. Any change in the state of confidence, whether or not in reaction to events reasonably expected to effect long-term investment prospects, brings about a dissolution of the existing conventional valuation and the emergence of a new one. As a consequence, investment markets are inherently volatile and, therefore, divert "the energies and skill of the professional investor and speculator" from attempting to forecast the long-term prospective yield of an investment to contriving to beat the mass of investors in foreseeing and profiting from short-term changes in the conventional basis of valuing stocks (Keynes [1936] 1964, p. 154).

For Keynes ([1936] 1964, p. 153), then, it is ultimately perfidious calculation and irrational convention that account for the "problem of securing sufficient investment." As noted above, both calculation and convention represent serious departures from the ethical code Keynes supposes will prevail in the millennium. The absorption of one's skill and energy in the service of monetary calculation is the very negation of the Moorite notion of the ideal life as the enjoyment of a sequence of good states of mind. The reason is that money, as Keynes ([1931] 1963, p. 356) characterized it, is "the grand substitute motive, the perfect *Ersatz*, the anodyne for those who, in fact, want nothing at all."

Regarding the ethics of relying upon convention as a guide to action in the face of an uncertain future, which was a position espoused by Moore himself, the theory of probability propounded by Keynes in the *Treatise on Probability* implies that such a reliance is irrational, and therefore counterproductive, as a means to attaining the good. As pointed out above, in Keynes's approach to probability, a probability exists in favor of an action as long as the balance of existing evidence, however slight or precarious such evidence is, suggests that it is the most productive of desirable results. Applied to the case of a long-term investment, therefore, although knowledge of the factors affecting the success of its outcome is bound to be precarious, the probability of its success can always be rationally determined as an ordinal ranking in a hierarchy of alternative investment projects.[1] Even where evidence concerning the long-term results of alternative actions or investments is completely absent,

as is sometimes bound to be the case, if there is evidence that one will yield greater advantages in the near future than the others, then, according to Keynes ([1921] 1962, p. 310), "by what seems a legitimate application of the Principle of Indifference we may suppose that there is a probability in favor of the former action."

Keynes's opposition to the conventional valuation of investments alleged to occur in the stock market therefore derives ultimately from a deep-seated ethical belief that, in its recourse to convention, humanity abandons rationality and succumbs to "the dark forces of time and ignorance." In organized investment markets, the abandonment of rationality is reflected in the fact that, since conventional valuation is unrelated to long-term yield considerations and rests on no objective foundation at all, continual and wholesale fluctuations in the state of confidence of investors result from random events. These fluctuations provide lucrative opportunities for "speculation," which divert the professional investors away from the activity of "enterprise" or the task of reasonable estimation of long-term yield prospects. The consequence of such recurrent bouts of over-optimism followed by crises of confidence is the collapse in the MEC, which precipitates the dreaded trade cycle (Keynes [1936] 1964, pp. 315–16).

The existence of the trade cycle thus bespeaks a moral as well as an economic failing of financial capitalism, since it is attributable to "the uncontrollable and disobedient psychology of the business world" (Keynes [1936] 1964, p. 317). Regarding the activity of speculation, which feeds on and profits from such "disobedience"—presumably, to the conclusions of his laboriously elaborated probability theory—Keynes ([1936] 1964, p. 359) draws an explicit connection between its degraded moral quality and its pernicious social consequences: "When the capital development of a country becomes a byproduct of the activities of a casino, the job is likely to be ill-done."

By extending the nexus of monetary calculation to include second-hand investments, organized financial markets thus promote the sins of convention and speculation and suppress capital accumulation. These markets further dampen the rate of investment by increasing its risk. By facilitating the differentiation of the saver-lender from the entrepreneur-borrower, the existence of financial markets requires that, before it may be undertaken, a risky investment promise a return that is sufficient to yield, in addition to the pure rate of interest plus a

premium for the borrower's or entrepreneur's risk, compensation for "lender's risk." Unlike the entrepreneurial risk premium, the premium accounting for lender's risk is not "a real social cost" which may be diminished by increased skill in forecasting, but "is a pure addition to the cost of investment which would not exist if the borrower and lender were the same person" (Keynes [1936] 1964, p. 144). Moreover, the lender's risk component includes and duplicates a part of the entrepreneur's risk component, because the lender as well as the borrower require a greater premium before committing funds to riskier investments (Keynes [1936] 1964, p. 145).

Keynes ([1936] 1964, p. 164) sees only two remedies for the distorted and volatile MEC schedule and the continually fluctuating and, on average, chronically insufficient level of investment which result from convention, speculation, and the unnecessary and wasteful duplication of risk. The first involves the implementation of a monetary policy designed to manage interest rates in such a way as to elicit continuously the "appropriate volume of investment." But Keynes confesses skepticism toward this alternative. The second, and Keynes's preferred remedy, is to extirpate the root cause of the problem by forthrightly abolishing markets and monetary calculation for investment, i.e., by socializing investment. Writes Keynes ([1936] 1964, p. 164):

> I expect to see the State, which is in a position to calculate the marginal efficiency of capital-goods on long views and on the basis of the general social advantage, taking an ever greater responsibility for directly organizing investment; since it seems likely that the fluctuations in the market estimation of the marginal efficiency of different types of capital . . . will be too great to be offset by any practicable changes in the rate of interest.

Given his analysis of the MEC, Keynes ([1936] 1964, p. 378) must be taken very seriously when he concludes that "a somewhat comprehensive socialization of investment will prove the only means of securing an approximation to full employment." This is in contrast to the conventional view, as expressed, for example, by Alvin Hansen (1953, pp. 215–16), which portrays Keynes as advocating short-run fiscal fine-tuning, at the same time discounting lengthy discussions of socialization of investment and the attainment of capital saturation as

examples of Keynes allowing "his fancy to roam in an irresponsible manner," "flying his kite," and engaging in "fascinating flights of fancy." Indeed, it has been definitively established by Meltzer (1988, p. 182), that in the *General Theory* "Keynes's main policy recommendation is for public direction of investment" and "Keynes believed that his main recommendations were policy implications drawn from his theory." Moreover, as Meltzer (1988, p. 295) also shows, Keynes did not originate the basic concept of fiscal fine-tuning or functional finance but learned it from Abba Lerner. After initially rejecting Lerner's ideas, Keynes intellectually accepted and praised them, but never gave any indication that "he accepted functional finance as a basis for policy." Accordingly, in his wartime memos on post-war reconstruction, Keynes "favored policies to stabilize investment and opposed policies to increase consumption on grounds . . . [that] income can be raised permanently by increasing and stabilizing investment" (Meltzer 1988, p. 186).

We now turn to the liquidity preference theory of interest, which may be characterized as the keystone of Keynes's analytical structure. With the interest rate determined solely by the interaction of the liquidity preference function and the quantity of money, rather than by the supply and demand for saving as in the classical theory, the progressive social force of capital accumulation is, at long last, rendered logically and wholly independent of the sin of saving. In the process, the activity of saving is thoroughly criminalized and deprived of its last shred of redeeming social advantage. No longer is an increase in the rate of saving seen as operating to lower interest rates and thereby to induce the additional spending on investment necessary to offset the negative effect on income of the concomitant decline in the rate of consumption expenditure. To the contrary, the attempted allocation of savings to the accumulation of additional cash balances to satisfy heightened preferences for liquidity actually *raises* the interest rate and reduces investment.

In a nutshell, the theory of liquidity preference tells the story of how the interest rate develops as a purely monetary phenomenon, which is rooted in avarice and precaution and determined on a superfluous market ruled by convention and speculation. Once determined, the interest rate confronts an irrationally determined MEC in an arbitrary monetary calculation that serves only to limit investment and to burden society with

an artificial scarcity of capital goods.

In explicating his theory, Keynes begins by bifurcating the decisionmaking process which expresses the individual's "psychological time preferences." In the initial stage of the process, the propensity to consume determines what proportion of his current income the individual will consume and what proportion "he will reserve in *some* form of command over future consumption." Once this decision has been made, the individual's liquidity preference dictates how much of his current stock of savings, which includes savings accumulated from past income flows, he holds in the form of money, which yields "immediate liquid command," and how much he invests in debt, which represents "deferred command over specific goods" convertible into money only at an uncertain future market price.

From this *ad hoc* and contrived description of the process by which an individual allocates his monetary assets, Keynes ([1936] 1964, pp. 166–67) deduces that "the rate of interest cannot be a return to saving or waiting as such. For if a man hoards his savings in cash, he earns no interest, though he saves just as much as before. . . . Thus the rate of interest at any time, being the reward for parting with liquidity, is a measure of the unwillingness of those who possess money to part with their liquid control over it."

But why does such a thing as liquidity preference exist, especially when it is considered that the holding of money yields no explicit return? The first reason that Keynes ([1936] 1964, p. 168) gives involves the "transactions motive": the current transaction of business by consumers and producers requires a ready supply of cash and, in a world in which the individual's income receipts and disbursements are not synchronized, this entails that "up to a certain point it is worthwhile to sacrifice a certain amount of interest for the convenience of liquidity."

Two additional factors, unrelated to anticipated transactions, motivate a preference for liquidity: precaution and speculation. According to Keynes ([1936] 1964, p. 168), the necessary precondition of both the precautionary and speculative motives for holding cash "is the existence of uncertainty as to the future of the rate of interest. . . ." The precautionary motive explains the compensation for the sacrifice of interest by the insurance which the possession of liquid wealth provides against the capital loss that may be incurred when an unforeseen need for cash necessitates a hasty liquidation of debt securities. The speculative motive for cashholding emerges in an economy where, in

addition to interest-rate uncertainty, there exists "an organized market for dealing in debts," e.g., a bond market (Keynes [1936] 1964, p. 169). Thus the individual "who believes that future rates of interest will be above the rates assumed by the market, has a reason for keeping actual liquid cash" (Keynes [1936] 1964, p. 170).

While liquidity preferences due to the transactions and precautionary motives are assumed by Keynes to depend on income and to be insensitive to fluctuations in the current rate of interest, the demand for liquidity for speculative purposes, where there exists a divergence of expectations among speculators regarding the future, is portrayed as varying inversely with the rate of interest. Thus, concludes Keynes ([1936] 1964, p. 171), "the rate of interest and the price of bonds have to be fixed at the level at which the desire on the part of certain individuals to hold cash (because at that level they feel bearish of the future of bonds) is exactly equal to the amount of cash available for the speculative-motive." Particularly where "the existence of an organized market gives an opportunity for wide fluctuations in liquidity preference due to the speculative motive" (Keynes [1936] 1964, pp. 170–71), changes in the interest rate in a capitalist economy reflect nothing more significant than the irrational migrations of speculators to and fro between the herds of bulls and bears.

From this analysis, Keynes ([1936] 1964, p. 203) is led to conclude that "the rate of interest is a highly conventional . . . phenomenon. For its actual value is largely governed by the prevailing view as to what its value is expected to be. *Any* level of interest which is accepted with sufficient conviction as *likely* to be durable *will* be durable. . . ." Moreover, where the opinion prevails that "the level of the rate of interest is self-adjusting, so that the level established by convention is thought to be rooted in objective grounds much stronger than convention," the interest rate may persist at a level that is too high for full employment. Keynes ([1936] 1964, p. 204) refers to "[t]he difficulties in the way of maintaining effective demand at a level high enough to provide full employment, which ensue from the association of a conventional and fairly stable long-term rate of interest with a fickle and highly unstable marginal efficiency of capital. . . ."

Even if an enlightened monetary authority were determined to drive the gross market rate of interest down in order to create a gap between the MEC and the interest rate sufficiently large to

call forth a full-employment or "optimum" level of investment spending, its efforts in this direction would be limited by two factors. First, there is what has come to be termed the "liquidity trap," which raises the possibility that "after the interest rate has fallen to a certain level, liquidity preference may become absolute in the sense that almost everyone prefers cash to holding a debt which yields so low a rate of interest" (Keynes [1936] 1964, p. 207).

While a good case can be made that many commentators on the *General Theory* have routinely misinterpreted and overemphasized the theoretical and practical significance which Keynes attaches to the liquidity trap (Meltzer 1988, pp. 270–80), the same certainly cannot be said of the second factor that Keynes cites as impeding any attempt to reduce the interest rate, which has been virtually ignored. This second impediment consists, according to Keynes ([1936] 1964, p. 208) of "the intermediate costs of bringing the borrower and ultimate lender together, and the allowance for risk, especially for moral risk, which the lender requires over and above the pure rate of interest." Thus, even if the monetary authority were to succeed in reducing the pure rate of interest or the liquidity premium to zero, an insuperable barrier to optimum investment and full employment could still exist in the form of the "effective rate of interest" stuck at too high a level and composed of irreducible costs of financial intermediation plus a risk premium to compensate the lender for moral and other risks of the borrower's default. This factor "may prove important in an era of low interest rates" (Keynes [1936] 1964, p. 208), which, as we shall see, Keynes looks forward to as the precondition of the transition to capital superabundance.

The liquidity preference theory thus represents the perfect instrument allowing Keynes to translate his longstanding ethical prepossessions regarding usury and avarice into scientific policy dicta. Keynes's reference to the impending "euthanasia of the rentier" is not an isolated flight of fancy but the central implication of his program to rid the economy of the baneful effects of usury and avarice by suppressing the rate of interest and thereby abolishing the bond market.

As noted above, for Keynes, the bond market is born out of the irrational and otiose separation between those who finance and those who implement investment projects. This separation serves to create a unique and unnecessary risk, i.e., of the borrower's default, which increases the cost of investment.

Furthermore, by providing an arena for speculation on interest-rate uncertainty, the organized bond market promotes avarice in the form of the speculative demand for cash holding. It is this demand which is the active factor in determining and driving the pure rate of interest; that is, the liquidity premium which must be paid to the avaricious for parting with monetary investment funds. Because the existence of the pure interest rate renders the ownership of debts competitive with the ownership of real capital assets, it further raises the cost and retards the rate of investment.

It is because the liquidity preference theory of interest establishes such a clear causal link between vice and economic instability and waste that Keynes steadfastly refused to relinquish it in favor of the scientifically more rigorous, general-equilibrium explanation, which emphasizes the simultaneous determination of the levels of income and the interest rate by saving and investment on the one hand and liquidity preference and the quantity of money on the other. As Patinkin (1976, p. 99) argues: "This tenet [that liquidity preference is the sole determinant of the interest rate] indeed served Keynes as a test of faith for all who wanted to be regarded as true converts to his new theory." In this spirit, Keynes was to "absolve" Harrod of misunderstanding this crucial aspect of his analysis (Patinkin 1976, p. 99).

Hansen (1953, p. 155) characterizes those chapters of the *General Theory* in which Keynes discusses the nature of capital as "another detour which could be omitted without sacrificing the main argument." And it is true that Keynes did not emphasize the "scarcity theory" of capital, which he develops in chapter 16, as a contribution on a par with effective demand, liquidity preference, and the marginal efficiency of capital. Keynes may have downplayed his contribution in this area because his treatment consisted of a series of loosely connected observations rather than a fully integrated theory. Nonetheless, the view of capital which emerges from these observations is crucial to the analytical progression of the main argument of the *General Theory*.

Keynes aims at establishing two fundamental propositions regarding capital. The first is that "an asset offers a prospect of yielding during its life services having an aggregate value greater than its initial supply price . . . because it is scarce; and it is kept scarce because of the competition of the rate of interest on money" (Keynes [1936] 1964, p. 213). The implication is that,

given its physical productivity, the less scarce capital becomes the lower its yield in excess of its supply price.

In support of this proposition, Keynes ([1936] 1964, p. 213) alludes to the "pre-classical doctrine" that "everything is *produced* by *labor*," aided by technology, natural resources and capital or "past labor embodied in assets." Like natural resources, then, the price of the latter aid to labor is also determined by its "scarcity or abundance."

Keynes's second proposition holds that at any given moment in time, the opportunity for capital investment is strictly limited. According to Keynes ([1936] 1964, p. 214), while there are admittedly some roundabout processes of production that are physically efficient, probably most are very inefficient due to the phenomenon of "spoiling or wasting with time." This implies a conception of roundaboutness that is restricted to currently used techniques and production functions in which there is little scope for intertemporal substitution among inputs. Thus Keynes ([1936] 1964, p. 217) writes that "[i]n the case of the great majority of articles, it would involve great technical inefficiency to start up their input more than a very modest length of time ahead of their prospective consumption."

But the investment of labor in the production of capital assets is even more narrowly limited by the fact that, for any given quantity of labor, there is an optimum proportion between capital and labor, i.e., "between the amount of labor employed in making machines and the amount which will be employed in using them" (Keynes [1936] 1964, p. 214). The structure of production could be advantageously lengthened beyond this limit to exploit the remaining physically more efficient and even some inefficient lengthy processes of production, only if preferences to postpone consumption into the future were strong enough to necessitate a rate of investment so great as to provoke a negative MEC. In this case, short efficient processes must be rendered sufficiently scarce to compensate for the effect on their product price of the relative disagreeableness attending early consumption.

The optimum roundaboutness of the production structure is thus fixed and depends on the given supply of labor in conjunction with the given structure of dates at which consumer demand for the various products is expected to become effective, taking into account the circumstance that the lengthening or shortening of certain processes may so improve the quantity or quality of their products as to induce consumers to postpone or

anticipate their prospective demands. Thus, in the case of a zero rate of interest, "there would be an optimal interval for any given article between the average date of input and the date of consumption, for which labor cost would be a minimum" (Keynes [1936] 1964, p. 216). A shorter or longer interval would be technically, as well as economically, less efficient. If the interest rate were above zero, the optimum interval would be contracted, necessitating a curtailment of current investment so as to achieve the greater scarcity of future products necessary to raise their prices enough to absorb the interest charge and the higher costs associated with the employment of technically less efficient shorter processes.

For Keynes, then, the interest rate constitutes the narrowest limit on investment. But even if a zero interest rate prevailed, Keynes's analysis implies that "there is a strict limit to the proportion of consumers' demand which it is profitable to begin providing for in advance" (Keynes [1936] 1964, p. 217).

In terms of practical policy, the conclusion Keynes ([1936] 1964, p. 375) draws from this analysis is momentous: "I feel sure that the demand for capital is strictly limited in the sense that it would not be difficult to increase the stock of capital up to a point where its marginal efficiency had fallen to a very low figure."

Keynes's analysis of capital completely ignores Böhm-Bawerk's seminal insight that capital accumulation permits the adoption of new techniques and production functions which, though previously known, remained unexploited precisely because the prevailing scarcity of capital rendered their implementation uneconomic. Thus, contrary to Keynes, progressive accumulation of capital requires and facilitates, within wide limits, an ever-increasing proportion of the given labor supply to producing capital goods. The growing quantity of labor inputs is applied not merely to "making machines," i.e., replicating existing machinery with existing techniques, but to making different and more efficient machines, to making existing machines more efficiently by building and using machines to make machines, to making the new machines necessary to mass produce luxury goods, e.g., the automobile, and to inventing new production processes and machines intended to supply heretofore latent wants.

It is illuminating to note the subtle connection between Keynes's analysis of the limits to capital accumulation and his Marshallian theory of wants and its key role in his millennialist

social vision. It is precisely the assumption that the broad classes of wants are definitely limited, easily identified and enumerated, and capable of being supplied by existing production techniques, which enables Keynes to envisage that human wants will be surfeited and the millennium achieved with an extra generation or two of capital accumulation. However, once the possibility is raised, as it is by Böhm-Bawerkian capital theory, that capital accumulation itself is capable of stimulating the realization and expression of hitherto undreamed of wants, the rat race for progressively increasing living standards is on and the vision of capital saturation amid the blissful stagnation of the millennium recedes into the remote future or dissipates altogether (compare Johnson and Johnson 1978, pp. 80–81, and Minsky 1975, pp. 151–53).

As Minsky (1975, p. 154) perceptively comments, Keynes's world is one "in which 'civilized' standards discipline and control relative needs and move consumption away from capital-intensive patterns. A world in which an endless accumulation of gadgetry and weaponry is the desire of man is not a world in which full investment will soon occur." It is open to speculation whether Keynes's initial hatred of the automobile (Hession 1984, p. 57) and his reported discomfort with the telephone stemmed from his view that such capital-absorbing gadgets represented a departure from the "state of disciplined wants" (Minsky 1975, p. 155) that is necessary to achieve capital saturation.

Indeed, it is precisely because almost all "Keynesian" economists, especially in the United States, have ignored the fourth building block of the strict limitation on the demand for capital that they have been able to regard the analytical technique of the *General Theory* as providing the means for fine-tuning and stabilizing capitalism, instead of, as Keynes intended it, the justification and recipe for its destruction. Thus, no sooner is the fourth and final building block represented by the scarcity theory of capital rolled into place, than Keynes uses his completed theoretical apparatus to deliver the *coup de grace* to capitalism. This is the demonstration that laissez-faire capitalism, given prevailing institutions and psychological propensities, even if it miraculously found itself in the blessed state of capital satiety, would be unable to sustain this economic Eldorado.

For his demonstration, Keynes ([1936] 1964, p. 217) supposes a society that possesses a capital stock of such a magnitude that any further investment would render the MEC negative. In graphical terms, we may envision an MEC schedule

which intersects the origin and otherwise lies entirely within the second and fourth quadrants, with any level of positive investment inducing a negative MEC. It is also supposed by Keynes that, in this economy, money does not physically depreciate or involve significant costs of storage, therefore implying that the interest rate can never be negative, and the social propensity to save exceeds zero at the full-employment level of income. In these conditions, effective demand would consist only of expenditures on consumption and would be insufficient to take up the full flow of output forthcoming at a full-employment level of income. The result is that both the level of employment and the capital stock will have to shrink in order to reduce income to a level at which aggregate saving is zero.

Based on this analysis, Keynes ([1936] 1964, pp. 217–18) concludes that thus "for a society such as we have supposed, the position of equilibrium, under conditions of *laissez-faire*, will be one in which employment is low enough and the standard of life sufficiently miserable to bring savings to zero. . . . [T]he equilibrium stock of capital which will have a marginal efficiency of precisely zero, will, of course, be a smaller stock than would correspond to full employment of the available labor; for it will be the equipment which corresponds to that level of unemployment which ensures zero saving." The implication of course, is that pushing the rate of interest to "vanishing point" via government monetary policy may not be sufficient to induce the state of full investment prerequisite to entering the millennium. There is the possibility, however, that the desire of the public to make provision for the future would become satiated, causing the propensity to save out of full-employment income to fall to zero, at some point before the rate of interest reaches zero.

However, this unlikely possibility of spontaneous salvation under capitalism, according to Keynes ([1936] 1964, pp. 218–19), is rendered even less likely when it is considered that there are certain institutional and psychological factors, "in particular, the costs of bringing borrowers and lenders together and uncertainty as to the future of the rate of interest," operating to set a lower limit on the rate of interest significantly above zero.

Ensconced as it is in the generally neglected chapter on capital, most commentators on the *General Theory* have overlooked the most important application of its analytical apparatus. This is to the explanation of how an accumulation of capital, "so large that its marginal efficiency has fallen more

rapidly than the rate of interest can fall in the face of the prevailing institutional and psychological factors, can interfere, in conditions mainly of laissez-faire, with a reasonable level of employment and with the standard of life which the technical conditions of production are capable of furnishing" (Keynes [1936] 1964, p. 219). The ultimate moral and technical perversity of capitalism thus rests on the demonstration that it transmogrifies and diverts the process of wealth creation and progress toward moral perfection to a descent into a permanent state of relative impoverishment wherein vice can never be transcended.

For Keynes ([1936] 1964, p. 219), however, there is a way out, because "This disturbing conclusion [regarding the effects of capital accumulation] depends, of course, on the assumption that the propensity to consume and the rate of investment are not deliberately controlled in the social interest but are mainly left to the influences of *laissez-faire*." The political economy of the *General Theory* is thus primarily addressed not to securing the short-run stability of output and prices but to promoting the long-run, evolutionary goal of solving the economic problem.

Keynes lays out his politico-economic proposals in the final chapter of the *General Theory*, and they are clearly and specifically aimed at "depriving capital of its scarcity-value within one or two generations." The measures elaborated to achieve this aim involve "central controls," a term Keynes ([1936] 1964, pp. 377–79) uses four times within the space of three pages. These measures are designed to enable the State "to determine the aggregate amount of resources devoted to augmenting the instruments [of production] and the basic rate of reward to those who own them" and also "to bring about an adjustment between the propensity to consume and the inducement to invest" (Keynes [1936] 1964, pp. 378–79). In addition to full investment, these measures are designed to achieve the supplementary goals of full employment and equitable distribution of income.

Keynes's primary policy prescription is for a gradual and steady reduction in the rate of interest to zero. Because Keynes is referring to the market or effective rate of interest, which includes, in addition to the liquidity premium, the various costs and risk premiums associated with bringing borrowers and lenders together, he argues that monetary policy is incapable of effecting this outcome on its own. Thus he advocates "a somewhat comprehensive socialization of investment," which is

the only way in which the institutional rigidity of the interest rate can be broken and, therefore, "the only means of securing an approximation to full employment" in the conditions of accumulating capital and a secularly declining MEC.

While a longtime advocate of neo-Keynesian fine-tuning, such as Tobin (Brunner 1987, pp. 53–54), downplays the significance of Keynes's use of the term "socialization of investment" by adducing its varied connotations, Keynes is reasonably clear about the economic arrangements he intends to connote by the term. The central controls which Keynes ([1936] 1964, p. 378) advocates do not necessitate the assumption by the State of "the ownership of the instruments of production." Indeed, Keynes ([1936] 1964, p. 374) expatiates, albeit patronizingly, on the social usefulness of "money-making" and "private wealth-ownership" in the pre-millennial world in which men have not yet been "taught or inspired or bred" to take no interest in such activities.

What Keynes does envision in proposing the socialization of investment is the replacement of individual saving and allocation of investment funds via debt and equity purchases on private markets by "communal saving through the agency of the State" ([1936] 1964, p. 376).[2] In this way, the irrational and speculative stock and bond markets will give way to Marshallian owner-entrepreneurs, who, in consultation with Burkean State financiers and using the principles of Keynes's probability theory, will rationally forecast the marginal efficiencies of the various types of capital goods and defeat "the dark forces of time and ignorance" (compare Brunner 1987, p. 38).

The progressive expansion of the capital stock brought about by the policy of continually reducing the interest rate will drive the MEC schedule steadily to the left until it reaches its evolutionary terminus at its intersection with the origin point. Actually, the MEC would not quite reach zero but would fall to "a very low figure" which would provide "some margin to cover risk and the exercise of skill and judgment" of the investing entrepreneur. Thus the gross yield on capital goods over their lives would "just cover their labor costs of production *plus* an allowance for risk and the costs of skill and supervision," there being no surplus left over for payment of a scarcity premium for the use of capital (Keynes [1936] 1964, pp. 375–76). In this state of full investment would therefore occur "the euthanasia of the rentier" and "the euthanasia of the cumulative oppressive power of the capitalist to exploit the scarcity-value of capital" (Keynes

[1936] 1964, p. 376). Depriving the rentier or functionless investor of an income would also improve the equity of income distribution.

While the goal of an optimum rate of investment is to be insured by the policy of steady reduction of the interest rate, the goal of full employment depends upon the level of aggregate demand, composed of consumption and investment expenditures. Although a declining interest rate also tends to weaken the incentive to save and thus to stimulate consumption, Keynes still requires a second lever adapted specifically to changing the average propensity to consume. According to Keynes ([1936] 1964, pp. 378, 380), "[t]he State will have to exercise a guiding influence on the propensity to consume. . . ." by virtue of its involvement "in the task of adjusting to one another the propensity to consume and the inducement to invest" to generate a full-employment level of income.

For this purpose, Keynes proposes a "scheme of direct taxation" which aims at redistributing income from higher to lower income groups and thereby raising the average propensity to consume. Keynes discounts any adverse supply-side effects of this taxation policy by asserting that the prevailing price of entrepreneurial ability and risk-taking is far in excess of its supply price. According to Keynes ([1936] 1964, pp. 376–77)"the entrepreneur *et hoc genus omne* . . . are certainly so fond of their craft that their labor could be obtained much cheaper than at present. . . ." Thus Marshall's attempt to enlist economic chivalry in the service of his fondest dream of increasing standards of life for the workers by reducing the supply price of "business ability in command of capital" is replaced by Keynes's intuition that the dream is already half true and awaits for its completion only the arrival of the tax collector.

With the interest rate, the rentier, and the speculator on financial markets suppressed by socialized investment and the "economic rent" received by entrepreneurs taxed away and used to subsidize State-provided benefits for laborers, the monetary expenses of producing goods are effectively reduced to reflect only their "real" costs of production, basically the disutilities of labor and legitimate risk-taking. Thus, for Keynes, the same central controls that secure full investment and full employment also operate to squeeze out from the production process all income payments that are unrelated to labor costs and to establish an equitable distribution of income.

Although sparse in its details, Keynes's scheme for State

direction of investment and remuneration for productive activity bears more than a passing resemblance to Hjalmar Schacht's Nazi command economy, which was "based on three main controls: of costs, investment, and international trade" (Woolston [1941] 1968, p. 236). Indeed, as Brunner (1987, p. 38) points out, in order to preclude the inevitable capital efflux induced by the pegging of domestic interest rates below world levels, Keynes recognized the necessity of a system of exchange controls that "would have to be rather far-reaching and also cover domestic transactions related in some manner to international transactions." In the early 1940s, Keynes also vigorously promoted the "Schachtian device" of international barter as an alternative policy for Britain in the post-war world, if some version of his scheme for international monetary reconstruction were not accepted. Keynes (quoted in Hession 1984, p. 331) labelled anyone who signed an agreement to preclude the use of such a device in advance "as great a traitor to his country as if he were to sign away the British navy before he had a firm assurance of an alternative means of protection."

There is some evidence that Keynes himself recognized the similarity between the nationalist system based on socialized investment which he espoused and the National Socialist system of political economy implemented by Schacht in Germany. Thus, in the Foreword to the German edition of the *General Theory* published in 1936, Keynes notes that the aggregative theory of production expounded in the book "can be much easier adapted to the conditions of a totalitarian state than the theory of production and distribution of a given production put forth under conditions of free competition and a large degree of laissez-faire." Keynes also expresses satisfaction if his theory "can contribute a single morsel to a full meal prepared by German economists" (Martin 1971, pp. 203–05).

In the foregoing, I do not intend to tar Keynes with the brush of National Socialism. Far from it, I merely wish to point out that, as a millennialist theorist, Keynes trusted to his own intuition and moral rectitude in choosing and applying policies which, in the hands of the less enlightened or less righteous, would result in a social holocaust. Keynes himself makes this point in a revealing letter written to Hayek, in which he comments on the latter's critique of planning, *The Road to Serfdom*. Writes Keynes (quoted in Meltzer 1988, p. 191):

> I should say that what we want is not no planning,

> or even less planning, indeed I should say that we almost certainly want more. . . . Moderate planning will be safe if those carrying it out are rightly oriented in their own minds and hearts to the moral issue. . . .
>
> I accuse you of perhaps confusing a little bit the moral and the material issues. Dangerous acts can be done safely in a community which thinks and feels rightly which would be the way to hell if they were executed by those who think and feel wrongly.

While a great deal more can and should be said regarding the evolution of Keynes's economics under the influence of his sociopolitical vision, I believe that my investigation is sufficient to indicate that the technical economics and the political economy of the *General Theory* have a definite millennialist orientation. The analytical apparatus was developed by Keynes to embody the ethical principles which he believed would govern his envisioned millennium. It was designed *ab ovo* to link up the economic failures of capitalism with the vices it characteristically fosters, "avarice, usury, and precaution." Moreover, it was Keynes's eagerness to attain the economic precondition of this millennial state, the abolition of capital scarcity and the satiating of "disciplined" wants, which guided his application of this apparatus in formulating policy conclusions. Thus, to emphasize again, the policies which Keynes deduced were not policies of short-run fiscal fine-tuning that have come to be associated with his name. Keynes was single-minded in his politico-economic advocacy: What was required was a socialized investment policy designed to abolish financial markets and the interest rate and achieve capital saturation.

Even when he was specifically addressing the issue of short-run instability in his chapter on the "trade cycle," the tune he was playing never changed or even wavered in pitch. Under *laissez-faire* capitalism, the recurrence of "wide fluctuations in employment" could not be avoided "without a far-reaching change in the psychology of investment markets such as there is no reason to expect." He concluded that ". . . the duty of ordering the current volume of investment cannot safely be left in private hands" (Keynes [1936] 1964, p. 320). Again this is not to deny that Keynes ([1936] 1964, p. 325) supported measures for manipulation of the level of consumption, but it is clear that he viewed such measures as supplementary to his policy of

socialized investment.

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[1] The reference to ordinal ranking of probabilities in this case illustrates Keynes's skepticism toward cardinal estimates of probability which is based on his general reluctance to conceive the theory of probability as synonymous with the theory of statistical frequency (Keynes [1921] 1962, esp. chap. 8). I am indebted to an anonymous referee for raising this point.

[2] There has been recurring and unresolved controversy surrounding the question of whether or not Keynes was an advocate of socialism. Of course, the resolution of this issue turns on the precise meaning to be attached to Keynes's call for "the socialization of investment." If it is interpreted, as I argue it should be, as a scheme to abolish equity and debt markets, then Keynes was indeed advocating the substitution of socialist central planning for a market economy. For as Mises points out, the existence of a stock exchange is precisely what distinguishes a functional market economy from a socialist economy. The retention of nominally private ownership of the means of production without the effective right of alienating such ownership titles in monetary exchanges deprives entrepreneurs of the ability to ascertain production costs, calculate ever-changing profit opportunities, and respond to these opportunities by rearranging existing combinations of capital goods. Centrally controlled investment, therefore, implies centrally planned production processes. Thus, for example, under National

Socialism in Germany, although private ownership of business assets was formally retained, all important production activities were carried on under the directives of state officials.

Mises's remark on the existence of a stock exchange as the *sine qua non* of a market economy is reported in Rothbard 1991, p. 59. For the original statement of Mises's classic argument that the abolition of markets and prices for capital goods renders the rational allocation of resources impossible, see Mises [1920] 1990. For a detailed description of the pre-war Nazi economy which emphasizes its essentially socialistic character, see Reimann 1939.

How and How Not to Desocialize

Murray N. Rothbard

Everyone in Eastern Europe and the Soviet Union is seemingly anxious to desocialize, to institute free markets and privatization. Plans profilerate, and innumerable Western economists are being consulted on how to go about this daunting task. It is generally acknowledged that bureaucrats are obstructing the process, but confusion abounds among free-market proponents themselves. Matters are scarcely helped by the fact that Western economists, to whom the former Eastern bloc is looking for wisdom, have themselves done virtually nothing to study, let alone solve, this problem during the sixty years since Stalin established socialism in the Soviet Union and the half-century since the Soviets imposed it on Eastern Europe. For ever since the mid-1980s, almost all Western economists have accepted the view that there is no calculation problem under socialism, and most have accepted the subsequent notion that the Soviet economy has been successful and growing, and would shortly overtake that of the United States.[1]

How Not to Desocialize

We may first clear the way on how to desocialize by examining various paths that have become popular, and yet are decidedly *not* the way to arrive at our presumably common goal.

How *not* to go about desocialization may be highlighted by the story of a friend of mine, who told me recently about a Soviet colleague in his department, who came to the United States to study diligently the problem of how to create a futures market in the U.S.S.R. He has been stymied by the fact that he cannot seem to figure out what laws or edicts the Soviet state should lay down, so as to replicate the futures market in the United States. In short, he cannot find a way to plan a futures market. Here then is a crucial point: *you cannot plan markets*. By their very nature, you can only set people free so that they can interact and exchange, and thereby develop markets themselves. Similarly,

several of the socialist countries, seeing the importance of the capital markets in the West, have been trying to develop stock exchanges, but with little success. First, again, because stock markets cannot be planned, and, second, because, as we will see further, you cannot have markets in titles to capital if there are still virtually no private *owners* of capital in existence.

Do Not Phase In

It is, again, generally accepted that free markets must be arrived at quickly, and that phasing them in slowly and gradually will only delay the goal indefinitely. It is well known that the giant socialist bureaucracy will only seize upon such delay to obstruct the goal altogether. But there are further important reasons for speed. One, because the free market is an interconnected web or lattice-work; it is made of innumerable parts which intricately mesh together through a network of producers and entrepreneurs exchanging property titles, motivated by a search for profits and avoidance of losses, and calculating by means of a free price system. Holding back, freeing only a few areas at a time, will only impose continuous distortions that will cripple the workings of the market and discredit it in the eyes of an already fearful and suspicious public. But there is also another vital point: the fact that you cannot plan markets applies also to planning for phasing them in. Much as they might delude themselves otherwise, governments and their economic advisers are not in a position of wise Olympians above the economic arena, carefully planning to install the market step by measured step, deciding what to do first, what second, etc. Economists and bureaucrats are no better at planning phase-ins than they are at dictating any other aspect of the market. To achieve genuine freedom, the role of government and its advisers must be confined to setting their subjects free, as fast and as completely as it takes to unlock their shackles. After that, the proper role of government and its advisers is to get and keep out of the subjects' way.

Do Not Crack Down on Black Markets

One route toward freedom that former President Gorbachev had adopted was to crack down on the villains of the black market. We might conclude that the mindset of the Eastern bloc has a long way to go in understanding freedom, except that there are precious few Westerners who understand this problem either. For

the black marketeers are not villains; if they sometimes look and act like villains, it is only because their entrepreneurial activities have been made illegal. The "black market" is simply *the market*, the market which Soviets claim to be searching for, but which has turned "black" precisely because it has been declared illegal. It is the market crippled and distorted, but it is there, in this despised "black" area, that the Soviets will find the market most readily. Instead of cracking down, then, the governments should, immediately, set the black market free.

Do Not Confiscate the People's Money

The Soviet Union suffers from the problem of "ruble overhang," that is too many rubles chasing too few goods. It is generally admitted that the "overhang" is the result of comprehensive price fixing, by which the government has set prices far below market-clearing levels. Over the years, the Soviet government has been rapidly printing new money to finance its expenditures, and this increased money supply, coupled with ever-dwindling supply of goods resulting from the breakdown of socialist planning, has created aggravated shortages and an excess supply of money over goods available.

It is commonly acknowledged that the shortages will be relieved and the overhang abolished, if prices were set free to move. But the government fears the wrath of unhappy consumers. Perhaps, but it is scarcely a solution to do what Gorbachev did, that is, follow the uninspired path of the Brazilian "free market" President Collor de Mello, who in the spring of 1990, in an attempt to reverse hyperinflation, arbitrarily froze 80 percent of all bank accounts. Gorbachev did one better by suddenly making useless all large-ruble bills, allowing only a small number to be exchanged for smaller dominations. This is no way to eliminate an overhang; at best, the cure is much worse than the disease. In the first place, in this supposed strike at black marketers, it has been rather the savings of the average Soviet that has been destroyed, since the black marketeers were shrewd enough to have moved already into precious metals and foreign currency. But even more important: By this action, the government delivers the second body blow of a one-two punch at the average citizen, and at the economy. The first punch was for the government to inflate the money supply so as to engage in its usual, wasteful expenditures. Then, Elfter the money has been spent, and prices driven up—in either open

or repressed fashion—then the government, in its wisdom, begins to exclaim at the horrors of inflation, blames black marketeers, greedy consumers, the rich, or whatever, and proceeds to the second monstrous punch of confiscating the money long after it has come into private ownership. Whether or not one calls this process "free market," it remains confiscatory, unjust, statist, and a double set of implicit taxes and burdens upon the economy.

Do Not Increase Taxes

Unfortunately, one of the "lessons" that many East Europeans have absorbed from Western economists is the alleged necessity of sharply raising taxes and making them progressive. Taxes are parasitic and statist; they cripple energies, savings, and production. Taxes invade and aggress against the rights of private property. The higher the taxes, the more the economy becomes socialistic; the lower they are, the closer the economy approaches true freedom and genuine privatization, which means a system of complete rights of private property. The Mazowiecki attempt to achieve privatization and free markets in Poland was greatly hampered by the imposition of far higher and progressive taxes.

As part of the shift toward freedom and desocialization, then, taxes should be drastically lowered, not raised.

Government Firms Owning Each Other is Not Privatization

I owe to Dr. Yuri Maltsev the information that the much-vaunted Shatalin plan for the Soviet Union, which was supposed to bring about privatization and free markets in 500 days, was really not privatization at all. Apparently, existing government firms in each industry, instead of being actually privatized—that is, owned by private individuals—would have been owned (or 80 percent owned) by other firms in the same industry. This would mean that giant state monopoly firms would continue to be state monopoly firms, and be self-perpetuating oligarchies rather than truly privately owned. Privatization must mean private property. [2]

How to Desocialize

The following points of desocialization must necessarily be written or read sequentially, but they need not be carried out in

that manner: all the following points could, and should, be instituted immediately and all at once.

Legalize the Black Market

The first two planks are implicit in the previous part of this paper. One, is to legalize the black market, that is to make all markets free and legal. That means that the private property of all those engaging in such markets must, along with everyone else, be made secure from government depredation, secure as a right of ownership. It means also that all goods and services hitherto illegal are now to be legal, whether they are legal in the West or not, and that all transactions are to be engaged in freely, that is, that prices are to be set voluntarily by the exchanging parties. Thus, all government price control is to be abolished forthwith. If such genuine prices for real transactions are to be higher than pseudo-"prices" set by the government for non-existent transactions, then so be it. Consumer griping should simply be ignored; any consumers who still prefer the previous regime of fixed prices for non-existent goods will, of course, be free to boycott the new prices and try to find cheaper sources of supply elsewhere. My hunch, however, is that consumers will adjust soon enough to these one-shot changes, especially since unprecedented abundance of consumer goods will quickly pour forth onto the markets.

By "legalizing," by the way, I mean simply abolishing a previous outlaw status; I do not propose to engage in semantic exercises trying to distinguish between "legalizing" and "decriminalizing."

Drastically Lower All Taxes

Another implication of our previous analysis is that taxation should be cut drastically. There is, in the literature on taxation, far too much discussion about which types of taxes are to be imposed, and who is to pay them and why, and not nearly enough on the height or amount of taxes to be levied. If the tax rate is low enough, then the form or principles of tax distribution really makes very little difference. To put it starkly, if all tax rates are kept below one percent, then it really does not matter much economically whether the taxes are on incomes, sales, excises, property, or capital gains. It is important instead to focus on how much of the social product is to be siphoned off to the

unproductive maw of government, and to keep that burden ultra-minimal.

While the form of taxation would not then matter economically, it would still matter *politically*. An income tax, for example, however low, would still maintain an oppressive system of secret police ready and willing to investigate everyone's income and spending and hence his entire life. Economists' opinion to the contrary, there is no tax or system of taxes that could be neutral to the market.[3] Whatever taxation that might exist after desocialization should, however, be as close to neutral as possible. This would mean, in addition to very low rates and amounts, that the taxation be as unobtrusive and harmless as possible, and imitate the market as closely as it can. Such imitation might include the voluntary sale of goods and services at a price, or setting a price for participating in voting. The sale of goods or services by the government would, of course, be drastically limited in our desocialized system, because of the enormous scope of privatization of government activities. Privatization will be treated below.

Abolish the Government's Ability to Create Money

There are three parts to any government's ability to generate revenue: taxation, the creation of new money, and the sale of goods or services.[4] There can be no genuine free market or desocialization so long as government is permitted to *counterfeit* money, that is create new money, whether it be paper tickets or bank deposits, out of thin air. Such money creation functions as a hidden and insidious form of taxation and expropriation of the property and resources of producers. Ending counterfeiting means getting the government out of the money business, which in turn implies eliminating both government paper money and central banking. It also means denationalizing currency units, such as the ruble, forint, zloty, etc., and returning them to private market hands. Denationalizing currency can only be achieved by redefining paper currencies in terms of units of weight of a market metal, preferably gold. When the central banks are liquidated, they could disgorge their gold hoards; as their last act on earth they could redeem all their paper tickets at the redefined weight in gold coins.

While, given the will to desocialize, this monetary denationalizing process is not as complex or difficult as it may first seem, it might indeed take longer than the one day required

for the other parts of our plan.[5] There could then be transitional steps of a few days' length: that is, the ruble or forint could be allowed to fluctuate freely and be convertible at market exchange rates into other currencies. It would still be imperative to take the money-creating power out of the hands of the national government; a possible way of doing that, and a second transitional step, would be to make the ruble convertible into harder currencies, such as the dollar, at some fixed rate. Pending return to a pure gold standard and liquidation of the central bank, it would also be important to curb the government's power to create money by freezing permanently all central bank activities including open market operations, loans, and note issues. It need hardly be added that a law or edict limiting or freezing the government itself is *not* an act of intervention into the economy or society. Quite the contrary.

Just as black markets and all private markets would be set free, so too private credit institutions, for the lending of savings or the channeling of the savings of others, would be set free to develop.

Fire the Bureaucracy

A question may have occurred to the reader: If taxation is to be drastically lowered, and the government is to be deprived of its power to print or create money, then how is the government going to finance its expenditures and operations? The answer is: It wouldn't have to, because there would be precious little left for government to do. (This will be explained further in the discussion of privatization below.) The socialist economy is a command economy, staffed and run by a gigantic bureaucracy. That bureaucracy would immediately be fired, its members set free at long last to find productive jobs, and develop whatever productive abilities they might have, in the now rapidly expanding and flourishing private sector.

This brings us to a fascinating problem which, while resting long in the hearts and minds of the oppressed subjects of socialism, has now unexpectedly become a live political issue. What is to be done with and to the top Communist party cadre, to the *nomenklatura*, to the vast apparatus of the once all-powerful secret police? Should justice at last be meted out to them by a series of state-crime trials, followed by proper and condign punishment? Or should bygones be bygones, a general amnesty be declared, and ex-KGB men hired as private guards or

detectives? I confess an ambivalence on this issue, in weighing the competing claims of justice and of social peace. Fortunately, the decision can be left to the peoples of the former Soviet Union and of Eastern Europe. There is not much that an economist, even a free-market economist, can say to resolve this issue.

Privatize or Abolish Government Operations

This brings us to the final, but scarcely the least important, plank of our proposed desocialization platform: privatizing government operations. Since theoretically all, or in practice *most*, production in socialist countries has been in the hands of the State, the most important desideratum, the crucial route for attaining a system of private property and free market, must be to privatize government operations.

But simply to say "privatize" is not enough. In the first place, there are many government operations, especially in socialist states, that we don't *want* to privatize, but rather to abolish completely. For example, we would not, as libertarians and desocializers, wish to privatize concentration camps, or the Gulag, or the KGB. God forbid that we should ever have an *efficient* supply of concentration-camp or secret police "services"!

Here is a point that needs to be underlined. The basic assumption of national income and GNP analysis is that all government operations are productive, that they contribute their expenses to the national output and the common weal. But if we truly believe in freedom and private property, we must conclude that many of these operations are not social "services" at all but *dis*services to the economy and society, "bads" rather than "goods."

This means that desocialization must involve the abolition, not the privatization, of such operations as (in addition to concentration camps and secret police facilities) all regulatory commissions, central banks, income tax bureaus, and, of course, all the bureaus administering those functions that are going to be privatized.[6]

Principles of Privatization

Genuine goods and services, then, are to be privatized. How is this to be accomplished? In the first place, private competition with previous government monopolies is to be free and unhampered. This would legalize not only the black market, but

all competition with existing government operations. But what about the massive accumulation of government firms and capital assets themselves? How are they to be privatized?

Several possible routes have been suggested, but they can be grouped into three basic types. One is egalitarian handouts. Every Soviet or Polish citizen receives in the mail one day an aliquot share of ownership of various previously state-owned properties. Thus, if the XYZ steel works is to be privately owned, then, if there are 300 million shares of XYZ steel company issues, and 300 million inhabitants, each citizen receives one share, which immediately becomes transferable or exchangeable at will. That this system would be impossibly unwieldy is evident. The number of people would be too much and shares too few to allow every person to have a share, and there would be shares of innumerably large numbers and varieties that would quickly descend upon the heads of the average citizen. Much of this chaos would be eliminated in the suggestion of Czech finance minister Vaclav Klaus, who proposes that each citizen receive basic certificates, which could be exchanged for a certain number or variety of shares of ownership of various companies on the market.

But even under the Klaus plan, there are grave philosophical problems with this solution. It would enshrine the principle of government handouts, and egalitarian handouts at that, to undeserving citizens. Thus would an unfortunate principle form the very base of a brand new system of libertarian property rights.

It would be far better to enshrine the venerable *homesteading* principle at the base of the new desocialized property system. Or, to revive the old Marxist slogan: "all land to the peasants, all factories to the workers!" This would establish the basic Lockean principle that ownership of owned property is to be acquired by "mixing one's labor with the soil" or with other unowned resources. Desocialization is a process of depriving the government of its existing "ownership" or control, and devolving it upon private individuals. In a sense, abolishing government ownership of assets puts them immediately and implicitly into an *unowned* status, out of which previous homesteading can quickly convert them into private ownership. The homestead principle asserts that these assets are to devolve, not upon the general abstract public as in the handout principle, but upon those who have actually worked upon these resources: that is, their respective workers, peasants, and managers. Of course, these

rights are to be genuinely *private*; that is, land to individual peasants, while capital goods or factories go to workers in the form of private, negotiable shares. Ownership is not to be granted to collectives or cooperatives or workers or peasants holistically, which would only bring back the ills of socialism in a decentralized and chaotic syndicalist form.

It should go without saying that these ownership shares, to be truly private property, must be transferable and exchangeable at will by their holders. Many current plans in the socialist countries envision "shares" which must be held by the worker or peasant and, for a term of years, could only be sold back to the government. This clearly violates the very point of desocialization. Other suggested plans impose severe restrictions upon the transfer of ownership to foreigners. Once again, genuine privatization requires complete private property, including sale to foreigners. There is, furthermore, nothing wrong with "selling the country" to foreigners. In fact, the more that foreigners purchase "the country" the better, for it would mean rapid injections of foreign capital, and therefore more rapid prosperity and economic growth in the impoverished socialist bloc.

A problem immediately arises in granting shares to workers in the factories, a problem akin to the question what is to be done with the Communist cadres and the KGB: Should the managing *nomenklatura* be cut in on the shares of ownership? In advising the Soviets in an address in Moscow in early 1990, the economist Paul Craig Roberts observed that the Soviet people could either cut the throats of the *nomenklatura* or cut them in on shares of ownership; for the sake of social peace and smooth transition to a free economy, he recommended the latter. As I wrote above, I would not be that quick to thwart the demands of justice; but I would like to point out again a third possible route: not doing either one, and freeing the *nomenklatura* to find productive jobs in the private sector. The philosophic point in contention is to what extent, if at all, the managers' activities in the old Soviet economy were productive, and therefore participant in homesteading-labor, and to what extent they were crippling and counter-productive, and therefore deserving of nothing better than a curt dismissal.[7]

A third commonly suggested route to privatization deserves to be rejected out of hand: that the government sell all its assets to the public at auction, to the highest bidder. One grave flaw in this approach is that since the government owns virtually all the

assets, where would the public get the money to purchase them, except at a very low price that would be tantamount to free distribution? But another, even more important flaw hasn't been sufficiently stressed: why does the government deserve to own the revenue from the sale of these assets? After all, one of the main reasons for desocialization is that the government does not deserve to own the productive assets of the country. But if it does not deserve to own the assets, why in the world does it deserve to own their monetary value? And we do not even consider the question: What is the government supposed to do with the funds after they have been received?[8]

A fourth principle of privatization should not be neglected; indeed, it should take priority. Unfortunately, by the nature of the case this fourth route cannot be made into a general principle. That would be for the government to return all stolen, confiscated property to its original owners, or to their heirs. While this can be done for many parcels of land, which are fixed in land area, or for particular jewels, in most cases, especially capital goods, there are no identifiable original owners to whom to restore property.[9] In the nature of the case, finding original landowners is easier in Eastern Europe than in the Soviet Union, since far less time has elapsed since the original theft. In the case of capital goods built by the State, there are no owners to identify. The reason why this principle should take priority wherever it applies is because property rights imply above all restoring stolen property to original owners. Or to put it another way: An asset becomes philosophically unowned, and therefore available to be homesteaded, only where an original owner, if one had existed, cannot be found.

There is one nagging remaining problem: How large should the newly private firms be? Every industry in socialistic countries is generally locked into a monopoly firm, so that if each firm is privatized into an equivalent-sized firm, the size of each will be far larger than the optimum on the free market. A fundamental problem, of course, is that there is no way for anyone in a socialized economy to figure out what the optimum size or number of firms is going to be under freedom. In a sense, of course, mistakes made in the shift to freedom will tend to iron themselves out after a free market is established, with tendencies to break up or to consolidate in the direction of optimum size and number. On the other hand, we must not make the mistake of blithely assuming that the costs or inefficiencies of this process may be disregarded. It would be preferable to come as close as

possible to the optimum in the initial privatization. Perhaps each plant, or each group of plants in an area, may be initially privatized as a separate firm. It goes without saying that a very important aspect of a free market and of this optimizing process is to allow the market complete freedom to work: e.g., to merge, combine, or dissolve firms as it proves profitable.

Conclusion

The dimensions of the proffered Rothbard Plan for desocialization should now be clear: (1) Enormous and drastic reductions in taxes, government employment, and government spending. (2) Complete privatization of government assets: where possible to return them to the original expropriated owners or their heirs; failing that, granting shares to productive workers and peasants who had worked on these assets. (3) Honoring complete and secure property rights for all owners of private property. Since full property rights imply the complete freedom to make exchanges and transfer property, there must be no government interference in such exchanges. (4) Depriving the government of the power to create new money, best done by a fundamental reform that at one and the same time liquidates the central bank and uses its gold to redeem its notes and deposits at a newly defined unit of gold weight of existing currencies. All this could and should be done in one day, although the monetary reform could be done in steps taking a few days.

One point we have not specified: precisely how low should taxes or government employment or spending be set, and how complete should be the privatization? The best answer is that of the great Jean-Baptiste Say, who should be known for many other things than Say's Law: "The best scheme of [public] finance is, to spend as little as possible; and the best tax is always the lightest."[10] In short, that government is best that spends and taxes and employs the least, and privatizes the most.

A final point: I have been criticized by libertarian colleagues for proposals of this sort because they involve action by government. Isn't it inconsistent and statist for a libertarian to advocate any government action whatever? This seems to me a silly argument. If a thief has stolen someone's property, it is scarcely upholding "robber-action" to advocate that the robber disgorge his stolen property and return it to its owners. In a socialist state, the government has arrogated to itself virtually all property and power of the country. Desocialization, and a move

to a free society, necessarily involves the action of that government's surrendering its property to its private subjects, and freeing those individuals from the government's network of controls. In a deep sense, getting rid of the socialist state requires that state to perform one final, swift, glorious act of self-immolation, after which it vanishes from the scene. This is an act which can be applauded by any lover of freedom, act of government though it may be.

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[1] Murray N. Rothbard, "Ludwig von Mises and the Collapse of Socialism," delivered at the annual meeting of the Allied Social Science Association, at Washington, D.C., 1990, and published as "The End of Socialism and the Calculation Debate Revisited," *Review of Austrian Economics*, 5, no. *2* (1991): 51–76.

[2] As Maltsev writes: "When the Soviets say privatization, however, they don't mean what we do by the term. The [Shatalin] plan would mandate that 80 percent of the stock of any enterprise be owned by other enterprises in the same field, not the public. To use a U.S. analogy, it would be as if General Motors owned 80 percent of Ford's stock and vice versa, and it were illegal to have it otherwise." Maltsev notes that Stanislav Shatalin, and the original author of his plan for the Russian Republic, Grigory Yavlinsky, "are both econometricians whose . . . lives have been spent in mathematizing the delusions of Marxism-Leninism. They are both long-time central planners who became disillusioned with full-blown socialism." Yuri N. Maltsev, "A 500-Day Failure?" *The Free Market* 8 (November 1990): 6.

[3] See Murray N. Rothbard, "The Myth of Neutral Taxation," *Cato Journal* 1 (Fall 1981): 519–64.

[4] A fourth form of revenue, borrowing from the public, is strictly dependent on the other three sources.

[5] See Yuri N. Maltsev, "A One Day Plan for the Soviet Union," *Antithesis* 2 (January/February 1991): 4, and in the earlier account, "The Maltsev One-Day Plan," *The Free Market*

(November 1990): 7.

[6] It is important to realize that if a government activity is a bad rather than a good, we would want its exercise, so long as it exists, to be as inefficient rather than as efficient as possible. One of the most hated organizations in early modern Europe was the "tax farmer," who purchased from the king, the right to collect taxes for a certain term of years. We might consider: would we want income taxes to be privatized, and collected, fully armed with state power, by IBM or McDonald's rather than the IRS? The industrialist Charles F. Kettering is supposed to have cheered up a friend in the hospital, who was complaining about the accelerated growth of government: "Cheer up, Jim, thank God we don't get as much government as we pay for."

[7] Yuri Maltsev recommends adoption of the homesteading plan, with the Vaclav Klaus distribution scheme to be adopted in cases where homesteading would not be feasible. Maltsev, "A One-Day Plan for the Soviet Union."

[8] One leading argument for the government selling its assets is that this process would have the anti-inflationary effect of sopping up the dread "ruble overhang." The fallacy in this egregious argument is that, unless the government officials propose to have a mass public bonfire of the rubles, the overhang would not be reduced at all. The government would spend the rubles, and they would remain in circulation.

[9] In Hungary, the Smallholders Party was formed to stress priority in privatization to returning land to the expropriated landholders of Southern Hungary.

[10] Jean-Baptiste Say, *A Treatise on Political Economy*, 6th ed. (Philadelphia: Claxton, Remsen & Haffelfinger, 1880), p. 449. Also see Rothbard, "The Myth of Neutral Taxation," pp. 561–64.

The Role of Entrepreneurship in Desocialization

Jeffrey M. Herbener

Now that communism has been repudiated across Central and Eastern Europe, the most pressing challenge for economic theory is to outline a process of desocialization for the former communist countries. Socialism's most obvious economic failure is its inability to produce the goods necessary for its citizens to have even a modest standard of living by Western, capitalist standards. Because, as Ludwig von Mises stressed, the entrepreneur is the driving force behind the social creation of wealth, any policy of desocialization must incorporate an understanding of the role of entrepreneurship in social production.[1] Because entrepreneurship is an integral part of their theories, Austrian school economists have more readily provided viable desocialization plans than those of other schools of thought.[2] Formulating a social system with the proper channels for entrepreneurial expression is essential for newly emerging capitalist countries and for interventionist ones, such as the United States, as they seek to revitalize their stagnating economies.

To anyone concerned with the problems of economic prosperity and the progress of civilization, an understanding of entrepreneurship and its institutional prerequisites is essential. The first step is to develop the economic theory of entrepreneurship applicable to every action; The next is to discuss entrepreneurship in a free market and how it compares to entrepreneurship under a socialist system. Only then can one construct a program of desocialization that calls forth the greatest quantity and quality of entrepreneurial activity in social production and exchange.

The Role of Entrepreneurship in Human Action

Economic theory is constructed by deducing the necessary consequences of the irrefutable fact that human action exists.[3] The purposefulness of human action provides the foundational

concepts from which all economic theory stems: ends, means, ideas, scarcity, choice, preference, value, cost, profit and loss, etc. When engaging in action an individual must evaluate potential courses of action, choosing one he prefers and setting aside others of lesser value; formulate ideas concerning how the end might be attained by the combining of means, choosing the highest evaluated recipe for action; and evaluate the means required by the recipe, come to control these means in action (i.e., own them) and so be able to combine them in an attempt to attain the end. In each action, the actor views means as either consumer goods, ones immediately available to satisfy an end, or producer goods, ones intermediate to the creation of a consumer good. Producer goods can be further sub-categorized into labor—human effort, land—naturally existing items, and capital—man-made goods. An essential feature of the means of production is diversity; not only is each person's labor different from that of every other person, so each parcel of land and each type of capital good is different from every other.

It follows immediately from the fact of action that when engaging in human action, i.e., applying means according to ideas to attain ends, individuals face an uncertain future. It is this uncertainty that calls forth the skill of entrepreneurship in each action a person takes. If the future state of affairs were known in advance with deterministic certainty, human action would be negated since the individual would not find it necessary to evaluate various ends (choosing the most preferred and setting aside others), to formulate ideas about how the end can be attained, nor to assess and accumulate the means he believes can be used cooperatively to attain the end. People would simply live out the preordained activities seen beforehand, never making errors in action caused by lack of foresight. Choice, as action requires it, would no longer be necessary; rather the problem of choice would be solved mechanically, much like solving an algebra problem.[4]

While not deterministic, neither can a person's perception of future states of affairs be random. The very existence of human action negates this possibility as well, since no action could be purposeful in a random world lacking any ability to predict the outcome of using means in any particular way, e.g., drinking milk nourishes one time and poisons the next. For human action to exist, the world outside the actor's mind must be orderly; i.e., characterized by time-invariant physical laws governing relationships among means, and subject to discovery by acting

individuals.[5]

Uncertainty as a condition of human action lies between determinism and randomness, and implies the human capacity to form expectations of the future that do not diverge completely from it nor adhere completely to it.[6] Entrepreneurship is the human ability to deal with uncertainty. Since every action is taken in the face of uncertainty, every action exhibits entrepreneurship, either to a lesser or greater degree.[7]

For an isolated individual the problem of uncertainty, for which entrepreneurship must provide a solution, concerns only the physical laws governing the relationships among means and the perceptions of his mind. Any action Robinson Crusoe takes requires him to apply his labor, which he owns naturally, to transform his physical surroundings into capital goods and eventually consumer goods (i.e., to homestead the island) which he then owns as the product of his labor. In so attempting to attain an end, he can act erroneously by, say, trying to catch fish with his hare hands because, e.g., he underestimates the difficulty of the task or he overestimates the benefit of having the fish.

The Role of Entrepreneurship in a Free Market

Those who wish to participate in the social interaction of voluntary exchange and the division of labor have additional and more difficult entrepreneurial tasks, namely, to discover and to forecast the subjective values of other people. Despite this obstacle, most people prefer engaging in social interaction, instead of acting in isolation, because they benefit from it. This benefit derives from a primal fact of human existence: Individuals differ from one another, both in subjective values and labor skills.[8] The former creates gain in subjective value from engaging in voluntary exchange as existing goods move from those who value them less to those who value them more, while the latter creates a gain in production from a division of labor as existing factors of production move from higher cost activities to lower cost activities. It is in these interactions that entrepreneurship finds its socially beneficial channels and plays its central role in the creation of society and progress of civilization.

The desire a person has to acquire the benefit of social interactions is insufficient to accomplish action in this setting. In addition, he must accurately forecast the subjective values of

others to effectively participate in social production and exchange. Voluntary exchange requires that each person who wants to participate must produce and bring to market a good that other people find of sufficient subjective value that they will exchange valuable goods they own for it. While everyone must exhibit this skill to some extent, it is possible for individuals to arrange their production of consumer goods according to a division of labor where specialized entrepreneurs take over this function.

For most activities, people prefer the greater efficiency of arranging production according to comparative advantage and then obtaining goods by voluntary exchange, compared to self-sufficient productive efforts. Talking the factors of production he justifiably owns (his labor and homesteaded land and capital), each individual voluntarily contracts with others to use his property for specific tasks in cooperation with them. Entrepreneurship becomes a part of the division of labor as some show greater abilities to deal with uncertainties inherent in the process of social production. Specialized entrepreneurs perform the social functions of dealing with uncertainty, coordinating the diverse labor (and other factors) of numerous individuals, and directing production into the most socially valuable ends. The latter two activities would be impossible without money as a basis for economic calculation.

Money is essential for the development of any advanced, i.e., industrial, economic production.[9] Without it no cardinal unit common to all exchange would exist and thus, participants would have no basis for making meaningful comparisons of the social value and cost of using diverse goods in action. Prices, which can exist only in money terms, that are determined in voluntary exchange indicate the degree of scarcity of goods; i.e., the subjective value placed on them relative to the amount of them in existence. Because money prices reflect subjective value and exist in cardinal units, they can be the ingredients of economic calculation.

Calculation of profit and loss is the process by which individuals determine what and how to produce in the complex latticework of social production.[10] Without economic calculation, a social system would not be able to register true preferences for consumer goods or produce them rationally, i.e., taking account of opportunity costs. Money prices determined by the free exchange of private property ownership reflect the social scarcity of goods as individuals, demonstrating their preferences,

freely buy, surrendering the value of other consumer goods, or refuse to buy, preferring the value of other consumer goods. Existing prices provide indispensable information from which entrepreneurial forecasts of the future scarcity of consumer goods can be made. Only then can entrepreneurs coordinate current productive activities to create those consumer goods with the greatest future social value.

The more difficult problem solved by economic calculation is selecting from the numerous techniques available to create a given consumer good. Without money prices, different techniques using various amounts and types of factors of production cannot be compared since they are denominated in non-comparable units, e.g., labor in hours and land in acres. Each factor must be evaluated with a common standard, denominated in cardinal numbers, to make comparisons among the techniques possible. Money prices for the factors of production reflect the value of those factors in the production of alternative consumer goods; thus, by comparing the total monetary payments required to produce a given consumer good using different techniques, the entrepreneur can determine which technique is socially efficient; i.e., which results in the lowest value of foregone consumer goods. In the absence of economic calculation, choosing one technique from among the many available can only be done arbitrarily and hence, irrationally. [11]

Entrepreneurs guide social production toward the attainment of desirable consumer goods by assuming the function of coordinating those who cooperate in the division of labor. This is accomplished through voluntary exchange, as each entrepreneur forms a business firm to contract with owners of factors of production internally and then to contract with the firms of other entrepreneurs externally.[12] Through these contractual agreements, entrepreneurs construct a grand latticework of production from higher stage capital goods to lower stage capital goods to consumer goods. A structure of almost infinite complexity in its detail, requiring the coordination of all factors of production in the economic system, it is completely flexible in the service of changing consumer desires within the boundaries of private property ownership, technological possibilities, and existing capital goods. Entrepreneurs also bring about the transfer of factors of production across time, according to individual preferences, from producing current consumer goods to producing current capital

goods necessary to build the structure so that the production of future consumer goods can increase.

It is through these contracts that entrepreneurs assume the uncertainty inherent in social production. They agree to pay the owners of the factors of production fixed sums of money in exchange for the use of these factors in production, the output of which they own, be it a capital good or consumer good. Because the market value of the factors is known in advance of production while the market value of the goods produced is not known until after they are produced, entrepreneurs become residual claimants, earning the profit or suffering the loss from the production process the magnitudes of which cannot be known in advance of production itself. It is their residual claimant status that links the incentive of entrepreneurs to actions that have demonstrable social value.

The ability to appeal to profit and loss gives entrepreneurs the information, incentive, and calculational process to act in accordance with social values, both externally from their business to others across the structure of production, and internally as a way to continuously check operations within their firm. Entrepreneurial activity can, therefore, penetrate into the firm's internal operations. Mises says:

> Business management or profit management is management directed by the profit motive. The objective of business management is to make a profit. As success or failure to attain this end can be ascertained by accounting not only for the whole business concern but also for any of its parts, it is feasible to decentralize both management and accountability without jeopardizing the unity of operations and the attainment of their goal. Responsibility can be divided. There is no need to limit the discretion of subordinates by any rules or regulations other than that underlying all business activities, namely, to render their operations profitable.[13]

The test of profit and loss applies not only to the firm vis-à-vis the market, but also within the firm as entrepreneurs use it to check the viability of internal operations. Thus, entrepreneurial activity has full reign both within firms (via both general and specialized entrepreneurship) and across firms (via specialized entrepreneurship) firms in a market system.[14]

While the process of exchange and production is driven by entrepreneurs, its goal is the satisfaction of the subjective values of those who participate as consumers and owners of factors of production. And thus, it is also a continuing testing ground for the selection of specialized entrepreneurs who best fulfill its goal. Those who cannot consistently earn profits and avoid losses will be weeded out from the ranks of specialized entrepreneurs, as capitalists, seek to provide funds to those who produce for them the highest returns.

The Role of Entrepreneurship in a Socialist System

Since social production requires the coordination of numerous, diverse individuals all engaging in human action, every social system must have channels for entrepreneurship. Social production cannot exist without entrepreneurship but each economic system opens different channels to it and opens them to different degrees. In the free market all channels are open to entrepreneurship within the boundaries of private property ownership and voluntary exchange. In socialism with state ownership of the means of production and legal prohibition of voluntary contracts, entrepreneurship is severely repressed and misdirected as its social functions are encroached upon by coercion and bureaucracy. Within the framework of the central plan, entrepreneurship takes on a peripheral role. Instead of being the driving force behind social production it becomes the means of coping with the contradictory and impossible demands of the plan. And yet, the ability of entrepreneurship to satisfy its social functions cannot be eradicated, a fact partially responsible for the economies of communist countries continuing to limp along year after year, providing their long-suffering citizens a meager standard of living.[15]

By eliminating private property and voluntary exchange, socialism eliminates money and money prices, and thus economic calculation and with it rational production. The planners not only cannot determine the relative scarcities, i.e., social value, of consumer goods, they have no meaningful way to choose among the various production techniques available to create the (socially) arbitrary list of consumer goods they have selected. They cannot rationally arrange a division of labor, lacking as they do information, incentives, and a calculational process. Under such conditions it becomes extremely difficult, if not impossible, for the planners to exhibit entrepreneurship even

if one assumed that they had comparative advantage in it.[16] Encompassed within the "single factory" that the economy becomes under socialism, the amount and accuracy of entrepreneurial insight are greatly diminished, severely hampering the social functions only entrepreneurs in the performance of their social functions.

Being planned from the top, the structure of production in a socialist economy must be simple and rigid vis-à-vis a capitalist economy since every production process in every stage of production must be written down and coordinated by the small group of planners.[17] This process parallels what a specialized entrepreneur does within his business firm in planning internal operations, which illustrates why such a plan must be almost infinitely more simple than the entire free market production structure encompassing, as it does, all the insight and plans of every entrepreneur across all businesses. Socialism formally taps the entrepreneurial skill of only the central planners while capitalism formally provides a channel for the entrepreneurial insight and energy of everyone, either in a specialized role or generally, i.e., in every action.

The absence of private property and voluntary contract also nearly eliminates the ability of (potential) entrepreneurs, within the "single factory," to assume the uncertainty of social production by becoming residual claimants. They are thus, unable to fulfill their social role in production or provide a testing ground to discover who has comparative advantage as specialized entrepreneurs. Instead, those involved in the process of production from the higher stage capital goods through to the lower stage capital goods and finally to the consumer goods become creatures of the bureaucracy. The central planners and bureaucrats issue orders, backed by coercion, to achieve production goals and thus, must rely on bureaucratic management, instead of profit and loss management, for fulfillment of the plan.

Mises defines bureaucratic management as, "the method applied in the conduct of administrative affairs the result of which has no cash value on the market," or "management of affairs which cannot be checked by economic calculation."[18] Lacking the method of economic calculation, bureaucrats cannot exhibit entrepreneurship to any significant degree. Mises says:

> Bureaucratic management is management bound to comply with detailed rules and regulations fixed by

> the authority of a superior body. The task of the bureaucrat is to perform what these rules and regulations order him to do. His discretion to act according to his own best conviction is seriously restricted by them.[19]

Bureaucracy places so many fetters on producers that most entrepreneurial activity is done illegally, some to nominally fulfill the plan, some to subvert it.[20] Mises concludes:

> Socialism, that is, full government control of all economic activities, is impracticable because a socialist community would lack the indispensable intellectual instrument of economic planning and designing: economic calculation. The very idea of central planning by the state is self-contradictory. A socialist central board of production management will be helpless in the face of the problems to be solved. It will never know whether the projects considered are advantageous or whether their performance would not bring about a waste of the means available. Socialism must result in complete chaos.[21]

No country in history has ever fully adopted socialism since it would mean swift death for its population. Instead, socialist countries play at central planning, overlooking widespread violations of the plan and using prices on international markets to engage in calculation.[22]

A Policy of Desocialization Accounting for Entrepreneurship

To provide for the full expression of the creative energies of entrepreneurs, the former communist countries must fully desocialize their economies by privatizing all property and removing the fetters of government intervention.[23][24] Complete desocialization requires putting full ownership (control of use in action including voluntary contract) of labor, land, and capital into the hands of individuals. With labor, this is relatively simple. Since each person naturally owns his labor it requires only that government interventions restricting the use of labor be abolished, allowing each person to freely contract and associate

with others. Self-ownership and freedom of contract are necessary prerequisites of a completely entrepreneurial economy because entrepreneurship is an individual phenomenon and can only be expressed socially, by individuals, in the less-than-fully predictable process of earning profit and avoiding loss. Entrepreneurship cannot be centrally planned, either in specific decisions or personnel.

The initial ownership of land and capital is not as easily implemented but theoretically should follow the principle of homesteading since it in turn is derived from the principle of each person owning his labor. The application of homesteading to existing unjustly owned, i.e., state owned, property is a syndicalist strategy; that is, land to the farmers and capital to the workers.[25] The labor of those who have worked the land under the collective ownership system gives them sufficient claim to the land to supersede the claims of others, save those who could demonstrably justify, i.e., by homesteading or contract, their ownership prior to state confiscation. Each parcel of land should be returned to those peasant farmers who worked it under collectivization. Likewise the ownership of capital should initially be given to those who worked in the various state-owned factories.[26]

Privatizing property would significantly reduce the size of government, eliminating state production and provision of goods and the massive bureaucracy necessary to operate the state apparatus. In its place, specialized entrepreneurs would emerge as those who render the greatest returns to the initial owners of land and capital as these owners sought out investment in entrepreneurial ventures. This voluntary method of capitalizing the specialized entrepreneurs is the only one consistent with the property ownership and freedom of all individuals. Simultaneously, it elicits the greatest quantity and quality of social entrepreneurship.[27]

The privatizing of socialist production centers should be done by creating ownership shares and distributing them to the workers at each center. Alternative schemes for privatizing these centers have either economic or ethical defects or both. For example, having a national auction where the state sells all state-owned property is grossly unjust: akin to having slaves pay their masters for the “privilege” of their freedom. Since the state is an illegitimate confiscator of property it has no just claim to sell or even use the property it has appropriated. If anything, justice demands that state officials compensate the populace for the

decades of virtual enslavement under their communist regimes. A national lottery to give away all state property cannot satisfy the demands of justice either. By what right can those who have not attached their labor to the capital and land make a superior claim to those who have? There is no justice in a random distribution of previously homesteaded and then expropriated property. Finally, a scheme to inventory all state property and issue equal ownership shares to each person fails on both economic and ethical grounds. Justice demands that ownership of capital and land be objectively identified with those who transformed this property with their labor, and economic ownership requires that the individual be able to sell his shares or liquidate them in specific pieces or limited aggregates of property. This ability is the counterpart to that of entrepreneurs who in creating new business firms could issue and initially sell shares only in their own firms. If they cannot do this they do not fully own their firms. These private shares would quickly outcompete the inefficient collective ownership shares, which would eventually be divided into economically meaningful subcomponents, like shares for each private business firm, or become worthless.[28]

Essential to the justice and economic success of such privatization would be free trade in these shares. The newly born stock market would quickly expand as emerging specialized entrepreneurs form new businesses and begin, with free capital markets in general, to correctly channel savings into the structure of production and across the structure to various processes for creation of the necessary capital goods without government intervention injecting irrationality into the process.

Money must also be returned to the market by state decrees to end monetary inflation immediately, to make the official currency redeemable in gold (at a rate appropriate to allow redemption of the entire stock of fiat paper for the state's gold stock), and to allow entrepreneurs to freely produce money within the framework of property rights. Returning money to the market is necessary to meaningful economic calculation without which rational social production cannot occur. Allowing the state to maintain control of money, even partial, insures the distortion of entrepreneurial activity as the state uses this power to control spending and capital flows.[29]

Privatization should be instituted simultaneously with a complete dismantling of all forms of government intervention into the ensuing pattern of voluntary exchange and division of

labor. This is a necessary condition of permitting private property ownership and of opening the channels for entrepreneurial activity in social production. With no more interference into the contractual conditions of private individuals, e.g., no price controls or occupational licensing, government would be further scaled back, releasing more bureaucrats into the productive private sector.

Finally, the process of desocialization should be done instantly, following the historic example of the German economic "miracle" begun by Ludwig Erhard on June 24, 1948.[30] Halfway measures will not work since they create secondary problems and the ensuing political pressure to renew controls.[31]

No better example of this principle exists than the tragic plight of the people of the former East Germany who may miss this historic chance for freedom by their apparent acceptance of the West German welfare state instead of a free market.[32] The results so far have been massive transfers of wealth from west to east caused by the artificial overvaluation of the East German mark; unjust property ownership caused by the sale of state assets and the preference in these sales to the politically connected; unemployment caused by the adoption of unemployment "insurance" and minimum wages; inefficient allocation of capital caused by acceptance of social security; inefficiencies and wealth destruction caused by implementation of a West-German-style tax structure and controls interfering with free domestic and international trade. Such a welfare-statist beginning does not bode well for the freedom and prosperity of the German people.

The East Germans would have been far better off traveling a course of complete privatization, not only for themselves, but for the irresistible pressure thereby put on the West German state to follow them down the privatization path. Unfortunately, they, like most people, have a dearth of principled, courageous, and knowledgeable statesmen who would take the initially, politically difficult path. Instead they are led by politicians willing to import the disastrous welfare-statist policies and politicians of West Germany.[33]

Entrepreneurship has no direct role in bringing about the program of desocialization. However, entrepreneurial activity has played a crucial indirect part by subverting the centrally planned system, illustrating to people the benefits of freedom. Those in the political system with the courage to desocialize will

face their biggest obstacle in the bureaucracy, entrenched as it is in the status quo. Overcoming this obstacle will be a most difficult political problem; those who will take the unpopular course of instant desocialization are not political entrepreneurs but statesmen to whom their countrymen would owe a great debt of gratitude.[34]

Conclusions

Entrepreneurship is the driving force behind improving the ability of all people to attain their ends in cooperation with one another. The future condition of mankind depends on the channels provided within a social system for the functioning of entrepreneurship. To have the greatest amount of entrepreneurship of the highest quality, a social system must be based on the private ownership of property and individual liberty. Only then can the free market emerge incorporating the talents of everyone in a voluntary, cooperative edifice of exchange and production coordinated by entrepreneurship which is made possible by economic calculation. A rare moment in history has come, allowing countries of the world to institute the free market, and thus ensure the prosperity and gratitude of their progeny.

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[1] Ludwig von Mises, *Human Action*, 3rd rev. ed. (Chicago: Henry Regnery, [1949] 1966), pp. 297, 299, and 336.

[2] It is a widely accepted observation that neoclassical economics has no significant role for the entrepreneur due to its formalistic character. At best the entrepreneur is an afterthought in neoclassical theory, awkwardly appended to its formal, usually mathematical, models. For example, see Israel Kirzner, *Discovery and the Capitalist Process* (Chicago: University of Chicago Press, 1985), pp. 1–25 and 68–92.

[3] On the method of economics see Mises, *Human Action*, pp. 1–10 and 30–71; Hans-Hermann Hoppe, *Praxeology and Economic Science* (Auburn, Ala.: Ludwig von Mises Institute, 1988); and Murray N. Rothbard. *Man, Economy, and State* (Los Angeles: Nash Publishing, 1962), pp. 1–2 and 63–66. On these

basic economic principles, see Rothbard, *Man, Economy, and State*, pp. 1–62.

[4] This is precisely the neoclassical view of choice. While necessary to draw out the conclusions from the aspects of choice not concerned with uncertainty, economic theory is incomplete at best and absurd at worst until propositions incorporating uncertainty are developed. This is one area where Austrian economics is far in advance of neoclassical economics. The neoclassical economists' frequent assumption of no uncertainty leads them to accept mathematical techniques in building theory and forces them to ignore the crucial role of entrepreneurship in human action. On the use of the technique of imaginary construction to build economic theory see Mises, *Human Action*, pp. 236–37; on uncertainty in action, pp. 105–18; and on general equilibrium and entrepreneurship, pp. 244–56.

[5] See Mises, *Human Action*, pp. 22–27 and 99–100; and Hoppe, *Praxeology and Economic Science*, pp. 18–19 and 32–34.

[6] The absence of randomness in human action precludes the use of statistical techniques based on the assumption of a data-generating process that produces data randomly. Econometrics violates both conditions: the absence of determinism, by assuming constants, and the absence of randomness, by assuming probability distributions. See Frank Knight, *Risk, Uncertainty and Profit* (New York: Kelley and Millman, 1957) pp. 22–48 and 197–232; and Mises, *Human Action*, pp. 106–15.

[7] On the differences between entrepreneurship in every action and specialized entrepreneurs see Mises, *Human Action*, pp. 252–55.

[8] Economic theories that ignore the diversity of labor, as well as that of other means, cannot adequately describe social production or explain the social role of entrepreneurship. See Mises, *Human Action*, pp. 157–65.

[9] See Ibid., pp. 257–69, 405–08, and 520–23.

[10] See Ibid., pp. 200–31 and 698–715.

[11] This is why Mises describes central planners in socialism as "groping in the dark." See *Human Action*, pp. 700–01. He also points out that Robinson Crusoe cannot engage in economic calculation (*Human Action*, p. 205). However, calculation is unnecessary for solving the problem of acting for Crusoe; economic calculation is necessary only for social systems requiring coordination of a division of labor and hierarchy of capital goods.

[12] On contracting see Armen Alchian and Harold Demsetz, "Production, Information Costs, and Economic Organization," *American Economic Review* 62 (December 1972): 777–95.

[13] Ludwig von Mises, *Bureaucracy* (Cedar Falls, Iowa: Center for Futures Education, [1944] 1983), pp. 45–46.

[14] The need to check the profitability of each internal operation of the firm requires money prices that can only be determined by the buying and selling of those outside the firm. Thus, in capitalism if a firm grew to encompass the entire market, entrepreneurs would no longer be able to apply economic calculation to its internal operations. This is *the* economic problem of socialism. See Rothbard, *Man, Economy, and State*, pp. 544–50.

[15] For the most recent exposé on the suffering of the Soviet citizen, see Paul Craig Roberts and Karen LaFollette, *Meltdown Inside the Soviet Economy* (Washington, D.C.: Cato Institute, 1990), pp. 39–74. They report Mikhail Gorbachev himself publicly announcing in 1988 that the Soviet economy had not grown for twenty years (p. 1). Coupled with the fact that the Soviet citizen's standard of living lags behind that in many Third World countries (p. 5) the truth of the dismal failure of Soviet attempts at central planning is evident. For similar accounts of the Hungarian and Peruvian citizens respectively, see Ivan Szelenyi, *Socialist Entrepreneurs* (Madison: University of Wisconsin Press, 1988); and Hernando de Soto, *The Other Path* (New York: Harper & Row, 1989).

[16] The presumption would be quite the opposite; that those who rise to the top in the political process have comparative advantage in the skills needed to do so and not superior forecasting of future subjective values of others or propensity for accepting the burden of uncertainty. See F. A. Hayek, *The Road to Serfdom* (Chicago: University of Chicago Press, 1944), pp. 134–52.

[17] For examples of how inferior the structure of production is in the Soviet Union, see Roberts and LaFollette, *Meltdown*, pp. 7–37. The contrast between the smooth operation within a capitalist firm and the chaos within the socialist "single factory" is remarkable.

[18] Mises, *Bureaucracy*, pp. 47–48.

[19] Ibid., p. 45.

[20] For fascinating examples of the native entrepreneurship of the Soviet people tragically suppressed by the bureaucracy see Roberts and Lafollette, *Meltdown*, pp. 7–37.

[21] Mises, *Bureaucracy*, p. 57.

[22] For Soviet examples of this phenomenon see Roberts and LaFollette, *Meltdown*, pp. 9, 15–17, and 25–26.

[23] As in all cases where property ownership is concerned, desocialization raises ethical as well as economic questions. It is not surprising that the program of complete privatization not only creates the necessary point of departure for the free market but is morally justified as well. This is a corollary of the principle that self-ownership and homesteading are the prerequisites of the free market. For the ethical justification of the free market see Murray N. Rothbard, *Ethics of Liberty* (Atlantic Heights, N.J.: Humanities Press, 1982); Hans-Hermann Hoppe, *A Theory of Socialism and Capitalism* (Boston: Kluwer Academic Publishers, 1989); and Hans-Hermann Hoppe, "From the Economics of Laissez Faire to the Ethics of Libertarianism," in Walter Block and Llewellyn H. Rockwell, Jr., eds., *Man, Economy, and Liberty* (Auburn, Ala.: Ludwig von Mises Institute, 1988).

[24] Far from despoiling these formerly communist countries with crass Western materialism, the implementation of capitalism will allow each group of people to fully express its own unique culture in ways restricted and forbidden until now. Indigenous entrepreneurs will bring forth those consumer goods, and the capital goods most suited for producing them, that people find desirable within the constraint of their cultural norms.

[25] See Hans-Hermann Hoppe, "De-Socialization in a United Germany," *The Review of Austrian Economics* 5, no. 2 (Fall 1991): 98–104.

[26] As a practical matter, this would probably need to include the former bureaucrats who presided over the production centers. Although those remote from the source of production, i.e., central planners, would only have homesteading rights to the particular state buildings they used in their former endeavors. On what to do with the bureaucrats, see Murray N. Rothbard, "How to Desocialize?", *The Free Market* 7, no. 9 (September 1989).

[27] While there is a tendency on the free market for those individuals to emerge as specialized entrepreneurs who have the relevant comparative advantage regardless of the existing pattern of property ownership, the precise outcome of social production will not be identical under different patterns of initial ownership. The beginning distribution of capital and land must take into consideration the question of justice. If not, one should argue for

the most expedient pattern of ownership; i.e., leave it in the hands of the bureaucrats and central planners. That such a suggestion is immediately ruled out is proof that justice makes a difference and must be appealed to unless the program of deserialization be discredited and abandoned. The tendency for efficient selection of specialized entrepreneurs on the market is actually an argument in favor of privatizing according to self-ownership and homesteading principles. Since the general economic result will be similar with either an unjust pattern of initial ownership or a just one, the latter is preferable.

[28] For a discussion of these alternatives, see Hoppe, "De-Socialization," pp. 98–101.

[29] On the gold standard see, Murray N. Rothbard, "The Case for a Genuine Gold Dollar," in Llewellyn H. Rockwell, Jr., ed., *The Gold Standard: An Austrian Perspective* (Lexington, Mass.: Lexington Books, 1985); and idem, "The Case for a 100 Percent Gold Dollar," in Leland Yeager, ed., *In Search of a Monetary Constitution* (Cambridge, Mass.: Harvard University Press, 1962).

[30] Consider also the Russian economist Yuri Maltsev's one-day plan for the immediate desocialization of the Soviet Union outlined in, "The Maltsev One-Day Plan," *The Free Market* 8, no. 11 (November 1990). A similar, but relatively snail-paced, plan for the United States is outlined by Llewellyn H. Rockwell, Jr. in, "Rockwell's Thirty-Day Plan," *The Free Market* 9, no. 3 (March 1991).

[31] See Mises, *Human Action*, pp. 858–61.

[32] See Hoppe, "De-Socialization," pp. 90–95.

[33] Ibid., pp. 88–97.

[34] Adherence to the Misesian view of entrepreneurship avoids the paradoxical idea of the "political" entrepreneur. The specialized entrepreneur, by definition, is involved in the wealth-enhancing process of voluntary cooperation within the division of labor where everyone benefits. There can be no "political" entrepreneur since the political process employs coercion resulting in the transfer and destruction of wealth as it distorts the division of labor. There is, however, political entrepreneurship in the sense that in every action the actor must deal with uncertainty. In the political arena this would be akin to the entrepreneurship interest in the actions of the robber and swindler. In both cases, the actor is uncertain concerning how much he can take from the victims and how strong and in what form their resistance might be. For analysis using the concept of a political entrepreneur, see Gordon Tullock, *The Politics of*

Bureaucracy (Washington, D.C.: Public Affairs Press, 1965), pp. 99f; and James Buchanan and Gordon Tullock, *The Calculus of Consent* (Ann Arbor: University of Michigan Press, 1965), pp. 334f.

Aurophobia: or, Free Banking on What Standard?

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Gold, Greenbacks, and the Constitution. By Richard H. Timberlake. Berryville, Virginia: The George Edward Durrell Foundation, 1991.

In recent years, disillusionment with the record of central banking has led a number of economists to return to the nineteenth-century concept of "free banking": [t]hat is, free and unregulated banking without a central bank. Unfortunately, this return has not been toward the Currency Principle/Mises tradition of free banking *within* a firm matrix of demand liabilities (notes or deposits) grounded in 100 percent reserves in specie (gold or silver). Instead, this new movement has harked back to the contrasting inflationary credit generated by what used to be known as "wildcat banking." In lauding free banking as akin to a free market in any other good or service, these new free bankers have overlooked two vital defects. First, that a genuine free market must be based on an absence of fraud or theft, whereas issuing demand liabilities in excess of assets is equivalent to a warehouse issuing fraudulent receipts to non-existing assets, and is therefore a species of fraud or embezzlement. And second, the free bankers neglect the insight of Currency Principle men from Ricardo down, that all quantities of money are optimal, and that therefore—in stark contrast to all other goods—increased supplies of money can only be redistributive and can confer no social benefit.[1]

On the first point, we contend that bank notes or deposits are bailments and not debt, and that therefore an issue of fractional reserve liabilities can only be a violation of the bailment contract. In addition to the pressure of bankers on the law, one of the reasons why the critical court decisions in the nineteenth century ruled the other way is that bailment law was then in an undeveloped state. In the late nineteenth century, and even in the 1930s in the United States, grain warehouses, which,

as in the case of banks, issue warehouse receipts to fungible goods, were able to issue, unchecked and unpunished, fraudulent receipts to non-existent wheat, which they loaned out to speculators in the Chicago wheat market. Interestingly enough, this fractional-reserve process generated a local boom-bust cycle in Chicago wheat.[2] In a genuinely free market, absent force or fraud, bank loans or investments would reflect only their own equity or their genuine debt (e.g., bonds or certificates of deposit), which would constitute genuine credit transactions—exchange of a present good (e.g., money) for a future good (e.g., money at a future date). Free marketeers are sometimes in danger of forgetting that fraud or robbery can be committed by private organizations as well as by government. As Mises favorably quoted Thomas Tooke, "free trade in banking is free trade in swindling."[3]

On the second, more narrowly economic point, from Ricardo to Mises and his followers it has been demonstrated that an increase in the money supply can only dilute the effectiveness of each existing money unit, and therefore must be "inflationary" in the sense of raising prices beyond what they would have been otherwise. In addition, we know from Mises's theory of the business cycle that such inflationary bank credit can only lead to a destructive boom-bust business cycle. And it is not true, on Misesian theory, that central banking is necessary in order to generate this cyclical process. Any bank credit expansion in commercial loans is sufficient to generate the business cycle, whether a central bank exists or not. In the Misesian view, however, there will tend to be far more room for bank credit expansion whenever a central bank, with its privileging by government and its role as a lender of last resort, is active in the economy.

The recent free bankers have consisted of a coalition of ex-Misesians (White, Selgin, Glasner), English subjectivists (Dowd), and neo-monetarists or neo-Friedmanites (Yeager, Timberlake). Friedman himself, while not totally committed to free banking, has been indicating his disillusion with the Fed's failure to follow his famed Money Rule (in addition to the increasing monetarist difficulty in figuring out which of the various Ms should be subject to that Rule). Hayek may be added to that list, except that he was never a Misesian on this question, at least since the 1930s.

I do not propose here to rehash the substantial controversy between the modern free bankers and the modern Misesians

(Rothbard, Salerno, Hoppe, Skousen, North), much less discuss the older 100 percent tradition (most eighteenth-century British economists, including Hume, except Adam Smith; the Currency school; the Jeffersonians and Jacksonians), or the 100 percent fiat paper reserve tradition of the Chicago school (Fisher, Knight, Simons, Hart, and the early Friedman). What I want to do here is to focus on another vitally important, but neglected, area of the free-banking controversy. Assuming for the sake of argument that banks will be free without restrictions to issue demand liabilities to standard money, *what*, in the view of the free bankers, is that standard money supposed to be? In a sense, this problem is more important and fundamental than the question of the reserve ratio: What is money, and what is going to be the "standard" money, in which these liabilities are supposed to be redeemable on demand?[4]

Oddly enough, the answer to this vital question by the free bankers have been vague, murky, and inconsistent answers that reveal deep and unexamined flaws in the free-banking camp. The recent booklet by Professor Timberlake—in the same vague and murky tradition—provides us with an opportunity to examine the views of modern free bankers on the monetary standard, and on what exactly would constitute the "cash" upon which the banks would be allowed to pyramid as many demand liabilities as they could get away with.[5]

Professor Timberlake's work is a curious performance. Ostensibly, it is a brief history of the greenbacks and of the judicial controversy over the constitutionality of the greenbacks and of their legal tender powers. Much of Timberlake's discussion of the Legal Tender Cases is indeed illuminating, since Timberlake is squarely opposed to the constitutionality of fiat money. And yet there are curious distortions and overtones, which build to a climax in the concluding chapters when Timberlake reveals his own positive monetary proposals. For one thing, his attack on greenbacks would seem to imply a pro-gold standard position, and yet throughout his analysis there is a subtle but continuing disparagement of gold which becomes evident when he unrolls his own inflationist, fiat money program. Thus, Timberlake states that the gold standard only existed for four decades in the nineteenth century, omitting the crucial point that from time immemorial only two standard moneys existed, gold and silver, with confusion only emerging from the co-existence either of parallel standards, in which gold or silver were free to fluctuate, or bimetallic standards, in which

governments attempted to fix the gold/silver at a ratio varying from the market. The fact that gold monometallism existed for only a few decades is beside the point, which is the well-deserved monetary longevity of both gold and silver.

Furthermore, while critically analyzing the judicial defenders of greenbacks, Timberlake manages to focus the issue almost exclusively on the illegitimacy of government power to make greenbacks, or fiat paper, legal tender for private contracts. But the power to make paper legal tender for payments *to government* is left unscathed by Timberlake, which as we shall see seems to fit into his ultimate monetary agenda. This omission contrasts starkly with the magnificently hard-money Jacksonians, who endeavored to end the federal government's power to receive paper or deposits in taxes or fees. The Jacksonians tried, and partially succeeded, in limiting the government to accepting only specie in payments.[6]

Once curious aspect of Timberlake's anti-gold stance is to embrace Milton Friedman's new-found attachment to bimetallism. Timberlake actually refers to Gresham's Law as demonstrating the gently stabilizing effects of bimetallism (pp. 8–9). And yet one of the more valuable insights of monetarism was to demonstrate that fixing of exchange rates inevitably causes distortions by creating shortages of the undervalued, and surpluses of the overvalued, money. From the fourteenth-century French scholastic Nicole Oresme to Ludwig von Mises, Gresham's Law has been seen as the inevitable and unfortunate consequence of maximum price control for the undervalued money and of minimum price control for the overvalued. And yet in pursuit of his lifelong hatred of gold, Milton Friedman seems willing to embrace virtually any alternative, including bimetallism, and Timberlake is willing to follow suit.

Part of Timberlake's problem here is thinness of scholarship. Thus, he discusses the central role of Civil War Secretary of Treasury (and later Chief Justice) Salmon P. Chase, without bothering to mention the national banking system, or Chase's intimate corruptionist connection with the investment banker Jay Cooke. He mentions Chase's ambition, and notes with surprise that Chase wanted to run on the Democratic ticket in 1868, without realizing that Chase was an old Jacksonian Democrat, and with slavery defeated there was every reason for him to return to the Democracy. More important, Jay Cooke was an old friend and literal patron of Chase, and Cooke and his influential Ohio journalist brother Henry lobbied the Lincoln

Administration heavily and effectively to make their client Chase Secretary of the Treasury. As soon as Chase gained the post, Cooke easily persuaded Chase to grant him the unprecedented power of monopoly underwriter of all government bonds—a monopoly Cooke was able to retain, almost unbroken, until he went bankrupt in the Panic of 1873. Then, Chase went along with Cooke's plan to destroy the decentralized pre-Civil War banking system and to replace it with a quasi-monopoly National Banking System, a system in which the federally chartered national banks had a monopoly privilege to issue notes, and their note issue was based *pro rata* on how many government bonds they might purchase. The bonds, of course, had to be purchased from Jay Cooke, who also managed to have himself granted several national bank charters. And so, when Timberlake refers crossly to Chase's "patent . . . anti-bank prejudice" (p. 21), he neither seems to understand that that "prejudice" stemmed from Jacksonian hard-money principle, nor that Chase stood ready to violate that principle in behalf of his corruptionist patron Cooke and so created the national banking system.

And while Timberlake correctly notes that the Republicans in this era were inflationist while the Democrats favored gold and hard money, he fails to link up these positions with economic interests. One of the major forces in favor of greenback inflation was the iron and steel industry, centered in Pennsylvania. Under the leadership of the Pennsylvania economist and ironmaster Henry C. Carey, the Radical Republicans and iron and steel interests were instructed that falling dollar rates caused by greenback inflation acted as a temporary but welcome extra tariff, discouraging iron and steel imports and encouraging their export. The other major inflationist interest was the big railroads, the major big businesses and incorporated enterprises in the country. Heavily indebted to their bondholders, the railroads saw that inflation would lower the real value of their outstanding debts. Thus, Timberlake correctly notes the significance of the action of the Grant Administration in appointing two Supreme Court Justices to fill vacancies. The Administration was sure these judges would quickly reverse the Legal Tender Cases and declare greenbacks and fiat money constitutional. Timberlake notes that these two swing justices were William Strong and Joseph P. Bradley, but fails to make the important point that Strong had been a top attorney for the Philadelphia and Reading Railroad, and a director of the Lebanon Valley Railroad; and as for Bradley, his

connections with the railroad interests were almost as great, having been a director of the Camden and Amboy Railroad and of the Morris and Essex Railroad, both in New Jersey.[7]

One pervading problem is that Timberlake's scholarship is spotty. Thus, on the post-Civil War monetary situation, there is reference to Irwin Unger's *The Greenback Era*, but no mention whatever of the equally important Robert P. Sharkey, *Money, Class and Party: An Economic Study of Civil War and Reconstruction* (Baltimore: Johns Hopkins University Press, 1959). Timberlake mentions Bray Hammond's classic *Banks and Politics in America*, but overlooks Hammond's important *Sovereignty and an Empty Purse: Banks and Politics in the Civil War* (Princeton: Princeton University Press, 1970). He uses the splendidly hard-money Don C. Barrett's article in the *Quarterly Journal of Economics* (May 1902), but omits Barrett's fully developed book, *Greenbacks and the Resumption of Specie Payments, 1862–1879* (Cambridge: Harvard University Press, 1931). And how can anyone, as Timberlake does, deal with silver and bimetallism without so much as mentioning the famed revisionist article by Paul M. O'Leary, "The Scene of the Crime of 1873 Revisited: A Note," (*Journal of Political Economy* 68 [1960]: 388–92), or the splendid work by Allen Weinstein, *Prelude to Populism: Origins of the Silver Issue 1867–1878* (Yale University Press, 1970)?

Perhaps the problem is that Professor Timberlake, or his Durrell Foundation editor, John W. Robbins, was anxious to rush past the history to get to the policy conclusions, the monetary agenda which is only loosely based on the preceding historical discussion. In his conclusion, Timberlake brusquely dismisses the gold standard. Gold, he says, has been subject to government manipulation by central banks. Very true, but how about the gold standard that also abolished the central bank? This Misesian solution is not mentioned, nor indeed is the extensive Jacksonian literature to the same effect. Timberlake states as if a new point that under the gold standard government need not have minted gold coins, a theme that has long been part of the Misesian literature. He need scarcely rely for reference on a forthcoming article by J. Huston McCulloch. Timberlake only bothers making two other negative references to justify his dismissal of gold. One, that gold might "shut out technically more efficient systems" (p. 52), whatever they might be, but without pointing out that efficient clearing systems can be and have been based on standard metallic money. His other point is the disingenuous one that even Ludwig von Mises, a champion of gold, admits that

gold "introduces an incalculable factor into economic activity" (p. 47). But Timberlake fails to note Mises's very next point: that this incalculable factor, stemming from variations in the supply of gold, has been minuscule compared to the volatility introduced by government and by bank manipulations of the supply of money.[8]

What then is Professor Timberlake's preferred alternative, one which he avows would "more effectively constrain the state" than the gold standard (p. 52)? What, in Timberlake's words, "is a market-directed monetary system completely free from any possible government intervention" (p. 62)? Or to return to our earlier question, in Timberlake's proposed world, in what thing would banks liabilities be redeemable? The one cogent note in Hayek's bizarre "denationalized currency" scheme is the pungent clarity of his answer: banks that issue Hayek, Rothbards, and ducats would redeem these paper tickets or open book liabilities in Hayeks, Rothbards, and ducats. Timberlake, unfortunately, is not nearly so clear. He does seem to realize that Americans are stuck with "dollars" as their currency unit and standard, just as Englishmen are stuck with pounds and Germans marks. He does not, however, explain why these countries are necessarily stuck with currency names. Instead, he becomes even murkier by adopting the curious—and grotesquely "constructivist"—plan of Greenfield and Yeager: that the monetary unit of account be totally and ineluctably sundered from the medium of exchange. The monetary unit would still be the dollar, but how then is the "dollar" to be defined? Originally, the dollar, along with every national currency, was simply defined as a definite unit of weight of gold or silver. Before 1933, for example, the "dollar," the monetary standard in the United States, was defined as 1/20 of an ounce of gold. Nowadays, of course, the "dollar" is fiat; it is simply a paper ticket issued by the Federal Reserve System that says, on its face, "one dollar" or "ten dollars."

What would Timberlake do about this; or, following Greenfield and Yeager, how would he proceed to "the practical purpose of getting the government [in the guise of the Federal Reserve System] out of any policy-making role" (p. 60)? By severing the dollar from the medium of exchange. The government would define the "dollar" as equal "to a market price index made up of a limited array of staple, conventional, basic commodities—items that would ideally mirror an all-markets average of prices." But if the government defines the dollar as an overall price index, wouldn't this definition be subjected to

political pressure for continually redefining the index; and wouldn't the government almost automatically strive to stabilize the price level as gauged by its precious index? No, because incredibly, according to Timberlake, Greenfield and Yeager, the government would be sternly advised *not* to stabilize its own index. But does anyone in his right mind, anyone at all familiar with our political system, think for one moment that the government would thus keep its hands off its own index?[9]

And what, too, would be the medium of exchange in Timberlake's system, and would that medium be redeemable in the dollar-index? None of that is clear. If it is redeemable, then presumably people would not be walking around with index market-baskets; if instead, it is to be redeemable in the "purchasing power" of the index, then we are hack to stabilizing the price level, and also in *what* would the medium be redeemed, and would that index then become the medium? If not, and if there is to be no redemption whatever, then who is to supply the medium of exchange, and what is to keep the "free" money suppliers from issuing money *ad infinitum*? (In the gold standard, of course, what keeps the banks at least partially in check is the necessity to redeem in gold.) Timberlake is of little help in supplying this crucial answer.[10] At one point he refers to the "medium of exchange [as] the Federal Reserve note" (p. 60)! *That's* getting the government and the Fed "out of any policymaking role?" At another point, he inconsistently "would leave this function [supply the quantity of money] to dealers and arbitrageurs in financial and commodity markets" (p. 60). What is all this supposed to mean? At another point, the confusion is even worse compounded by Timberlake's calling for "privatizing" the government's gold stockpile "and the twelve Federal Reserve Banks" (p. 62). Privatizing the Federal Reserve? What can this mean? In a profound sense, the Federal Reserve, as well as all previous central banks, are already "private"—a government-established and enforced cartel of the private banking system. Are we then to be stuck forever with Federal Reserve notes as "dollars," whether or not they are officially defined as such? Privatizing the Fed is about as cogent, and about as genuinely free-market-oriented, as the idea of "privatizing" the Internal Revenue Service. No, it is important to realize that those government operations which supply or monopolize genuine goods and services should be privatized—e.g., carrying the mail, supplying streets and roads, putting out fires. But other government activities, which are counterproductive and

destructive to the market—e.g., the IRS, government regulatory commissions, concentration camps for dissenters—should *not* be privatized but abolished. Surely, that massive monopolistic and inflationary engine of legalized and legitimated counterfeiting called the Federal Reserve System should be abolished rather than privatized.

In supporting the idea of sundering the unit of account from the medium of exchange, Timberlake fallaciously refers to the researches into medieval money of the great economic historian Luigi Einaudi.[11] But he fails to realize that in his historical cases, Einaudi was not writing about an abstract unit of account of "imaginary money" that came from the sky or from professors and was never used as a medium of exchange. On the contrary, in all cases, Einaudi was referring to the bimetallic or parallel metallic situation in which units of weight of gold (or silver) was the medium of exchange in a certain country, whereas units of weight of the other precious metal, silver (or gold) functioned as the unit of account. In this situation, both gold and silver originally emerged, on the market, as media of exchange and hence units of account. Not only do Einaudi's cases not constitute historical support for the Timberlake-Greenfield-Yeager scheme; they are precisely the reverse.[12]

The problem with all these plans, from Greenfield and Yeager to Timberlake to Hayek, is that they ignore one of Ludwig von Mises's most original and profound contributions to monetary theory: the "regression theorem," which demonstrates that no money can originate in any society except as a medium of exchange, and as a medium that arose on the free market as a useful non-monetary commodity, e.g., gold or silver.[13] Hence, the regression theorem explains the fallacy and the dismal prospects for all such constructivist schemes as the magic index or the Hayekian ducat. The reason why we must start with the dollar as the money for Americans, the franc as the money for the French, etc., is that the people of these countries are used to those units of account, and since those units grew originally out of a unit of weight of gold or silver, they were useful non-monetary commodities on the market before they became employed as moneys.[14]

If we really wish, then to separate government from monetary policy or from monetary functions, we must totally divest government of those roles. We must therefore start with reality—the dollar defined as a government paper ticket or Federal Reserve note—and proceed to privatize the dollar

precisely by ending its relationship to the note, and by redefining it as a unit of weight of gold. How is this to be done? By abolishing the Federal Reserve System. Abolishing that "corporation" means, as in the death of any corporation, liquidating its liabilities, and parcelling out the assets of the liquidated organization to its creditors. Since Federal Reserve notes are legally liabilities of the Fed, and since its assets are the Fed's accumulated gold stock kept in Fort Knox and other Treasury repositories, the gold should be parcelled out *pro rata* to the Fed's creditors (holders of Federal Reserve notes and banks that keep demand deposits at the Fed). The dollar would be redefined in units of weight of gold to permit 100 percent liquidation as well as the exchange of gold assets for all liquidated notes and liabilities. As its last monetary function, the Treasury could mint the gold coins out of the deposited bullion to exchange for these notes and deposits. The money supply would then consist solely of gold coins, which could be deposited for warehouse receipts in commercial banks. Federal Reserve notes and deposits would then have disappeared.[15]

One of the few places where I agree with Professor Timberlake's prescription is to "privatize the government's stockpile of gold." But of course legally the gold is owned not by the government *per se* but by the Federal Reserve; and therefore the only way to privatize the gold stock, and at one and the same time to abolish the Federal Reserve and to return from a fiat to a gold standard, would be the plan I have described above: redefinition of the dollar as a unit of weight of gold, and abolition of the Fed and the disgorging of its gold stock, to be exchanged, one for one, for its liquidated liabilities, the Fed's notes and deposits.

I submit that we would then have a gold standard without a central bank, without fiat money, without Federal Reserve notes, and with none of the actualities or even possibilities of government intervention that Professor Timberlake professes to abhor. But for Timberlake, or for Greenfield or Yeager, to adopt such a plan, would require them to abandon once and for all, their flight from gold, that veritable phobia about gold, or "aurophobia," that has marked all respectable schools of economic thought, whether Keynesian or monetarist, for most of the inflationist twentieth century.

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[1] With the exception, of course, of increased *non*-monetary benefit from an increase in gold or silver, a gain that cannot accrue from an increase in fiat paper or in fractional-reserve bank credit.

[2] Ours is the view of the losing counsel in the 1816 English case of *Devaynes v. Noble*, who argued that "a banker is rather a bailee of his customer's funds than his debtor . . . because the money in . . . [his] hands is rather a deposit than a debt, and may therefore be instantly demanded and taken up." See J. Milnes Holden, *The Law and Practice of Banking, Vol. 1: Banker and Customer* (London: Pitman, 1970), p. 31; Murray N. Rothbard, *The Mystery of Banking* (New York: Richardson & Snyder, 1983), pp. 87–95.

[3] Ludwig von Mises, *Human Action*, 3rd rev. ed. (Chicago: Henry Regnery, 1963), p. 446.

[4] In 1975, at least, Hans F. Sennholz, a former Mises student, had no doubt on the proper answer to this question, as note the title of the book he then edited: *Gold I$ Money* (Westport, Conn.: Greenwood Press, 1975). Since then, however, Sennholz has apparently become an ex-Misesian and joined the free-banking camp.

[5] Hayek's proposal, which can only be considered grotesque, can be dismissed quickly. For Hayek would solve this problem by having each bank create its own fiat paper currency. In short, a Rothbard Bank could issue notes or deposits in 50, 100, and 1,000 Rothbards, which would be redeemable in . . . the same amount of paper Rothbard tickets! Such a bank could of course never fail, but it is doubtful if anyone save close friends and relatives could ever be induced to use and hold these notes and deposits, regardless of what grandiose promises about "price stability" Rothbard might wave in front of potential customers. In addition, Hayek's proposal is absurdly "constructivist" on his own methodological terms. It is doubtful that anyone not a Nobel Laureate making such a proposal would be taken seriously. Thus, see F. A. Hayek, *Denationalisation of Money* (2nd ed., 1976; London: Institute of Economic Affairs, 1978). For a critique, see Murray N. Rothbard, "The Case for a Genuine Gold Dollar," in Llewellyn H. Rockwell, Jr., ed., *The Gold Standard: An Austrian Perspective* (Lexington, Mass.: D. C. Heath/Lexington Books,

1985), pp. 2–6.

[6] The Jacksonian Democrats, under Van Buren and Polk, were able to impose the Independent Treasury system, in which the federal government kept its money only in its own Treasury vaults, and not in any banks. They did not succeed, however, in requiring the government to accept taxes and fees only in specie. See Major L. Wilson, *The Presidency of Martin Van Buren* (Lawrence, Kans.: University Press of Kansas, 1984), pp. 61–121.

[7] Ron Paul, *The Ron Paul Money Book* (Clute, Texas: Plantation Publishing, 1991), pp. 115–16. On the railroad ties of Strong and Bradley, see Philip H. Burch, Jr., *Elites in American History, Vol. II: The Civil War to the New Deal* (New York: Holmes & Meier, 1981), pp. 44–45.

[8] Ludwig von Mises, *The Theory of Money and Credit* (1934; Indianapolis, Ind.: Liberty*Classics*, 1980), p. 27.

[9] Professor Timberlake would have done well to heed Mises's insights about index numbers in the passage just before the sentence he yanked out of context: "If it should be thought that index numbers offer us an instrument for providing currency policy with a solid foundation and making it independent of the changing economic programs of governments and political parties, perhaps I may be permitted to refer to what I have said. . . . on the impossibility of singling out any particular method of calculating index numbers as the sole scientifically correct one. . . . There are many ways of calculating purchasing power by means of index numbers, and every single one of them is right, from certain tenable points of view; but every single one of them is also wrong. . . . Since each method of calculation will yield results that are different from those interests and injure others, it is obvious that each group of persons will declare for those methods that will best serve its own interests." Mises, *Theory of Money and Credit*, pp. 26–27. Also see Mises's scintillating critique of index numbers in ibid., pp. 215–23.

[10] Greenfield and Yeager are not much more helpful either. In contrast to Timberlake's hint about "privatized" Federal Reserve notes still constituting the medium of exchange, Greenfield and Yeager avow the absence of "any dominant" medium of exchange, which seems close to calling for no general medium of exchange at all, and hence a return to some form of barter. Greenfield and Yeager also propose a convenient new criterion for the advance of science: that the burden of proof to clarify and persuade others of a totally new proposal, such as theirs, should rest on the readers bound in their old frameworks

rather than on the authors themselves. R. Greenfield and L. Yeager, "Competitive Payment Systems: Comment," *American Economic Review* 76 (September 1986): 848–49.

[11] In addition to citing Einaudi's article in the Gayer *Festschrift* for Irving Fisher, Timberlake might have momentarily strengthened his case by referring to the impressive article by Luigi Einaudi, "The Theory of Imaginary Money from Charlemagne to the French Revolution," in F. C. Lane and J. C. Riemersma, eds., *Enterprise and Secular Change* (Homewood, Ill.: Richard D. Irwin, 1953), pp. 229–61. The Einaudi article was originally written in *Rivista de storia economica*, 1936, and its English translation by Giorgio Tagliacozzo was approved and added to by Einaudi.

[12] On the theory of parallel standards, see Mises, *The Theory of Money and Credit*, pp. 205–13. For historical examples of parallel standards, see also W. Stanley Jevons, *Money and the Mechanism of Exchange* (London: Kegan Paul, 1905), pp. 88–96. Robert S. Lopez points out that whereas gold coinage was introduced into modern Europe almost simultaneously in the mid-thirteenth century by Florence and Genoa, Florence instituted bimetallism, whereas "Genoa, on the contrary, in conformity to the principle of restricting state intervention as much as possible, did not try to enforce a fixed relation between coins of different metals." Robert S. Lopez, "Back to Gold, 1252," *Economic History Review* (December 1956): 224.

[13] On the regression theorem, see Mises, *The Theory of Money and Credit*, pp. 129–59; *Human Action*, pp. 408–16.

[14] Greenfield and Yeager, dismissing the relevance of the point that their monetary scheme could never emerge from the market, argue that "dismantling government domination of the existing system will require deliberate policy actions, and the positive actions taken will unavoidably condition the successor system." Greenfield and Yeager, "Competitive Payments Systems," p. 849. But it is precisely because economic history is path-dependent that we don't want to foist upon the future a system that will not work, and that will not work largely because such indices and media cannot emerge "organically" from individual actions on the market. Surely, the idea in dismantling the government and return (or advancing) to a free market is to be as consonant with the market as possible, and to eliminate government intervention with the greatest possible dispatch. Foisting upon the public a bizarre scheme at variance with the nature and functions of money and of the market, is precisely the

kind of technocratic social engineering from which the world has suffered far too much in the twentieth century.

[15] What of the government securities that now constitute the bulk of the assets of the Federal Reserve System? An urge for genuine privatization and a decent respect for the taxpayer would require the immediate writing off of these bonds; why should the taxpayer be forced to pay interest and principal when one agency of the federal government owns the bonds of another?

The Enterprise of Law. By Bruce L. Benson. San Francisco: Pacific Research Institute, 1990.

Many advocates of the free market hold an odd view of that institution's scope. Although economists such as F. A. Hayek and James Buchanan laud the market to the skies and never tire of describing the depredations and stupidities of the state, they reverse themselves at a crucial junction.

They maintain that the market depends on the state for its existence. Unless a government establishes and enforces law, they claim, the market will soon sink from order to chaos. It is the outstanding merit of Bruce Benson to subject this view to withering scrutiny, both theoretical and historical. He argues that people can secure justice through private arrangements and that they have often done so, both now and in the past. Far from being necessary to a just social order, the state is a hindrance.

The book should not be taken as a defense of anarchism, since Benson does not discuss functions other than justice such as national defense usually assigned to the state. But in the contemporary climate of opinion, the work is startlingly radical.

If one characterizes law as a system of enforceable rules of conduct, nothing in the nature of law requires its provision by a state. How law has been provided is a question for historical investigation, not one to be resolved by fiat.

Benson clearly gets off to a good beginning. One might add that many eminent legal scholars, most notably John Austin and Hans Kelsen, have defined law in a question-begging way: They require that law be promulgated by a sovereign. Benson, who relies here principally on Lon Fuller, avoids this pitfall.

On one minor point he seems to me incorrect. Why is it the case that if "law is simply represented by any system of rules . . . then 'morality' and 'law' would appear to be synonymous" (p. 11)? In this definition, what is moral would be legal, but it is not necessary that what is legal be moral.

Benson gives an excellent account of the development of law in Anglo-Saxon England. Custom gave birth to the law and sustained it. The state entered *after* the legal system was developed, seizing control of it in order to gain power and money. His description of the history of English law from Anglo-Saxon times through the nineteenth century shows mastery of a wide variety of sources; his presentation is a veritable *tour de force*. I would suggest only two additions. First, in the description

of the Magna Carta, its annulment by Pope Innocent III should have been mentioned. Also, in contrast to the earlier situation described by Benson (p. 68), defendants during much of the nineteenth century could not testify.

The author places great stress on the Law Merchant, which during the period 1000–1200 "evolved into a universal legal system through a process of natural selection" (p. 32). Trade among the nations of Europe took place principally in fairs and markets, and merchants traveled from one to another. They devised a system of courts and regulations to handle business disputes; to rely on the varying customs of each nation would have been grossly inconvenient. This system, formed independently of the various states, became the basis of modern commercial law.

Benson, drawing upon a wide array of data, describes many cases of law without the state, ranging from the Kapauku Papuans of Western New Guinea to the American West in the nineteenth century. Contrary to various Hollywood movies, the West was not a series of never-ending gunfights in which outlaws terrorized a cowed populace. Quite the contrary, the West developed a considerable measure of home-grown law and order (pp. 312–21).

Though these facts cannot be denied, some will be inclined to interpose an objection. Before one can have private arrangements to enforce a body of law, do we not require a structure of rights, in particular an assignment of property titles? How can this structure be created by the market, since for the market to operate rights must first exist?

Benson's reply is cogent. Rights are indeed necessary for a market to function, but it by no means follows that they must be established through collective action. By a mutual recognition of one another's claims, people can gradually build up a system of rights. The market does not delay its arrival until the full details of a law code are hammered out; it comes into existence and develops along with the clarification and extension of the system of rights.

However surprising one may find the historical facts, they are exactly what one would expect given elementary principles of economics. In a market system, producers have a strong incentive to give customers what they want; if they do not, they will be replaced by those better able to fulfill consumer demand. Those who succeed in satisfying consumers will profit. This is the mechanism of natural selection mentioned above, and it exerts

an inexorable pressure.

The state operates through an utterly different principle. As Benson accurately notes, the principal purpose of the state is the transfer of wealth. Like Franz Oppenheimer and Albert Jay Nock before him, Benson pictures the state as an instrument of coercive interference with free activity. Struggles among the Anglo-Saxon kingdoms, culminating in the Norman Conquest, dealt the non-statist Anglo-Saxon legal system crippling blows. The state took over the Law Merchant and subjected it to rigid restrictions.

The situation remains the same today. The abundant efforts of people to escape from the official legal system, e.g., through arbitration and private police, have been continually shackled by the state, a "jealous God" indeed, fearful and intolerant of all rivals.

Supporters of state provision of justice frequently rely on one weapon to defeat opponents, the famous public-goods problem. Law and its enforcement, it is alleged, generate several public goods. If, for example, police patrol a neighborhood, the benefit of deterrence of crime extends not just to those who pay for the services but to all local residents. Most of these public goods are familiar but some are rather recondite. David Landes and Richard Posner, for example, maintain that written opinions by judges produce positive externalities, since people other than the parties to the case can use written decisions as guides (p. 279).

Benson has a double line of defense to these criticisms of private law. First, he endeavors to show that the market can internalize the externalities in question. Neighborhood associations, e.g., can require everyone who purchases property in an area to contribute to police protection. (Of course, this must be done not through compulsion but contractually.)

So far as the problem of precedent is concerned, judges do have an incentive to issue written opinions. In a competitive situation, judges need to acquire a good reputation in order to attract customers; no one can compel disputants to use them. To issue opinions that attain widespread respect is obviously one means of doing so. One might add to Benson's discussion that in the Roman Empire many legal scholars or *jurisconsults* gained recognition through their writing.

The second string in Benson's bow is as much an attack as a defense. To think that government has any realistic chance of improving the provision of public goods by the market is fatuous.

Government is dominated by bureaucrats, intent on gaining power for themselves. Special interest groups can through concentration of resources gain privileges that worsen the position of others. Benson develops his bleak picture principally through application of public choice economics. He defends it by massive citation of historical and contemporary evidence.

Furthermore, state activities tend to create their own public goods problems. Access to the courts is available to all; people do not have to pay a market price to use the state's legal services. Of course, expenses such as filing fees and attorneys' costs do limit entry, but there is no charge just for access. Overcrowding results; and the governmentally supplied resource is used inefficiently. If the market sometimes underproduces public goods, the state more frequently overproduces them.

Benson concludes that the public goods problem does not strike a fatal blow at a free market legal system. Given the manifest advantages of this system, he accordingly recommends it.

The book's outstanding argument can I think be strengthened at two points. First, the underlying assumptions of Benson's model of public goods are not entirely clear. On one model, "a public good is one that enters two or more persons' utility" (p. 273, quoting Paul Samuelson). Efficiency aims at matching utilities and costs as closely as possible.

I am far from certain, but I think this is the conception of efficiency Benson uses. Although in his hands it leads to results favorable to the free market, it is intrinsically objectionable. If taken as a welfare ideal, a glance will show that this view of efficiency is a variant of utilitarianism, subject to most of the problems of that position. This is not the place to debate ethical theory, but it is uncontroversial that utilitarianism is controversial. It cannot simply be assumed without defense.

Another way of looking at public goods has quite different implications. Here one begins with having people and property rights not subject to coercion. People may find themselves in situations where individual and collective rationality conflict, but the question facing the analyst is entirely different from that of the first model. All solutions must strictly respect property rights.

If one goes one step farther and adds the Austrian demonstrated preference principle, the problem of public goods dissolves. The principle is of course much disputed; but it seems to me that even those inclined against it ought to adopt a strict view of rights. Had Benson done so, he could not so easily have

said: “An ideal and *permanently* limited government might be an improvement” over a complete free market (p. 373).

The second point at which the book’s argument might benefit from expansion resembles the first. If efficiency is understood in loose terms as increasing wealth then it seems evident that it is an important value. But it is not the sum and substance of political philosophy, and its relation to other values needs to be examined. How would Benson reply to a defender of government who accepted his argument but claimed that other ethical principles still required a statist legal order?

I cannot guess Benson’s response to this question, but of one thing I am sure. It would be a carefully considered answer, based on exhaustive research. *The Enterprise of Law* is a magnificent achievement and I enthusiastically recommend it.

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Carl Schmitt: Politics and Theory. By Paul Edward Gottfried. New York: Greenwood Press, 1990.

Economists have in recent years extended their distinctive methods of analysis to the state. According to the public choice school, government officials, like everyone else, attempt to advance their own interests. The possession of power changes their situation but leaves untouched their motivation. The state does not differ in its nature from other institutions.

Ludwig von Mises adopted an entirely different approach to the state. The state in his view rests on force. The economic or "catallactic" sphere, based on exchange, does not encompass the state. Quite the contrary, it operates on antithetical principles.

In taking this view of the state, Mises showed his affinity for a conservative tradition whose foremost twentieth-century representative was Carl Schmitt. Mises and Schmitt did not know each other, so far as I am aware, although both knew Max Weber; and Mises speaks disparagingly of Schmitt in *Omnipotent Government*. Nevertheless, the similarities are unmistakable.

Paul Gottfried's brilliant new work elucidates Schmitt's view of the state. As Gottfried stresses, Schmitt rejected the pluralism of Harold Laski, who saw the state as but one of many groups within society. This anti-political view ignored the essence of the state, its monopoly of coercive power.

Schmitt maintained that liberals overemphasized legality: their quest for a precisely organized system of legal rules was a futile effort to avoid political decision. Thus, Hans Kelsen, the leading liberal jurist of the German-speaking world and Schmitt's arch-rival, argued that every legal system stems from a basic rule or *Grundnorm*. From the basic rule, the entire legal system can be logically deduced.

Schmitt questioned the fundamental basis of Kelsen's Pure Theory of Law. The key to sovereignty lies not in a system of principles, but rather in the power to make exceptions to customary legality in order to deal with emergencies. A state exists not by itself but as one of a group of contending powers. The chief function of the sovereign is to preserve order. Rival states need to be contained and internal factions kept in line.

Kelsen's deductive procedure bears close affinities with Mises's praxeological method in economics. But Mises's theory of the state was nevertheless closer to Schmitt's than to Kelsen's.

Like Schmitt, Mises thought that the state had one key duty, the preservation of order. Unlike Schmitt, he did not stress the importance of the exception. But both Mises and Schmitt could say, with de Maistre, "The state rests on the executioner."

As Gottfried ably brings out, Schmitt refused to subordinate order to any "higher" political goals. In spite of Schmitt's reputation as a collaborator with National Socialism, "Schmitt in fact expounded a modified traditionalist view of the state that had little in common with Nazi theory or Nazi practice" (p. 3).

During the final years of the Weimar Republic, Schmitt strongly opposed the Nazis as a manifest threat to political stability. In line with his doctrine of the exception, he urged that a presidential dictatorship be established to contain both the Nazi and Communist threats. His advice was of course not followed, and after Hitler became Chancellor in January, 1933, Schmitt joined the Nazi Party. His period of effective collaboration with the Nazis came to an end in 1936; he was never the "Crown Prince" of Nazi jurists, as leftist writers endlessly repeat.

Schmitt's brand of conservatism differed entirely from the Nazis' emphasis on race and party above the state. He saw himself in the tradition of Jean Bodin and Thomas Hobbes. Bodin sought an end to the domination of French politics by religious warfare. In the *Six Books of the Commonwealth* (1576), Bodin emphasized the imperative need of the sovereign to control religious factions. Although in most cases the ruler should observe the laws and customs of the kingdom, he should be prepared in emergencies to abrogate them. Bodin did not write in an anti-religious spirit, although it perhaps goes too far to call him a "believing Catholic" *tout court* (p. 34). He may have been, but the nature of his religious views has aroused enormous dispute. His main work on the subject, the *Colloquium heptaplomeres*, is difficult to interpret.

Like Bodin, Hobbes saw the state as the sole guarantor of order. Gottfried discusses in detail Schmitt's interpretation of Hobbes, noting in particular Schmitt's emphasis on the symbolism of Leviathan (pp. 48–49). Hobbes thought it within the power of the sovereign to declare how Christianity was to be interpreted: his ruling bound his subjects in their outward behavior. In his discussion of Schmitt on Hobbes, Gottfried shows superb control of the immense Hobbes literature. He offers an especially valuable discussion of the Warrender thesis, the view that Hobbes was a Christian Scholastic. In addition to the articles

he cites critical of Warrender, I would also recommend Thomas Nagel's essay "Hobbes's Concept of Obligation" (*Philosophical Review*, 1959).

A leitmotif of Schmitt's work was his continued efforts to demonstrate how theology gave birth to political ideas. His association of doctrines of the Trinity with imperial assertions of power in the Roman Empire, a thesis that embroiled him in furious controversy with Erik Peterson, is the most famous instance.

Occasionally, Schmitt's search for parallels between theology and politics misfired, as in his discussion of the occasionalists in *Political Romanticism*. Nicholas Malebranche and other occasionalists attributed all causation to God's direct action. Schmitt drew a parallel between this view and the Romantics' tendency to think of themselves as outside the ordinary world. To them, politics was an "opportunity of expressing their inmost selves" (p. 18).

But this misunderstands the occasionalists. Malebranche did not deny fixed order in the world. On the contrary, he saw the world as the scene of constant correlations, anticipating the position of David Hume, who knew his work well. Malebranche taught that God added necessary connection to the fixed order of the world. His philosophy was not an assertion of theological arbitrariness. Incidentally, I do not think that occasionalism has ever been declared heretical (p. 17).

To Schmitt, the analysis of intellectual movements was much more than an academic exercise. He maintained that the "tyranny of values" endangered contemporary political order. Intellectuals in the grip of abstract universals threaten to overthrow political order, principally by perfervid advocacy of democracy. Rather than view the state as the preserver of order, the democratic ideology subjects society to total politicization (p. 80). In this way it bears a close connection with totalitarianism.

Schmitt traced the contemporary "tyranny of values" in part to the ethical universalism of Immanuel Kant, who not coincidentally favored a world federation of nations. Mises did not share this position, although he was decidedly not a Kantian in ethics. But he too stressed the role of maligned intellectual doctrines in the overthrow of European order. Oddly enough, Mises's most extended treatment of this theme is in *Omnipotent Government*, the book that criticized Schmitt. Further, although Mises supported democracy, he did so strictly on pragmatic grounds. He had no commitment to it as an ideology.

Gottfried applies Schmitt's insights in a fascinating way to neoconservatism. Although supposedly rightwing, the neoconservatives favor total commitment to democracy in the exact fashion stigmatized by Schmitt. Their Wilsonian interventionism and worship of democracy bear no resemblance either to traditional conservatism or libertarianism. Gottfried insightfully compares Allen Bloom's universalist position with Kant's (p. 91).

Paul Gottfried has given us not only a lucid account of Carl Schmitt but also an illuminating analysis of contemporary politics. In both tasks, he displays remarkably wide-ranging and thorough scholarship. Gottfried is clearly an original thinker of high rank.

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Ingenious Yankees: The Rise of the American System of Manufactures in the Private Sector. By Donald R. Hoke. New York: Columbia University Press, 1990.

Until recent years, the history of technology used to be written, and taught, for its own sake and almost completely isolated from economic and social history. Who among us has not had his eyes glaze over at tedious recitations of the technology of the flying shuttle, or the power loom, or the open-hearth process? The treatment was tedious because treated in isolation; about all we were told of the economic effects was that these machines improved productivity and lowered costs.

This tiresome tradition came to a sudden end with the arrival of the fascinating and crucially important work of David A. Hounshell, *From the American System to Mass Production, 1800–1932* (1984), which created a new paradigm dominating the field of American technological history. Hounshell's achievement was to integrate technological with economic and social history, and bring us, for the first time, a genuine history of the development of mass production. Thus, for example, in his pioneering history of the bicycle industry of the 1890s, Hounshell showed that the bicycle was, in two ways, a critical prelude to the invention and development of the automobile because, (1) the bicycle taught consumers the possibility and the joy of individual, mobile transportation (in contrast to the mass transportation between fixed points essential to the railroad); and (2) it taught bicycle makers the technology of the wheel, the tire, and the axle. It is no accident that the first automobiles were made in bicycle shops.

But there was one troublesome aspect to this new paradigm, one that conspicuously did not fit with an economist's knowledge of the market economy and the way it operates as compared to government. Based on his own work and on the contemporaneous studies of Merritt Roe Smith, Hounshell asserted that the fountainhead of mass production was U.S. government armories. Operated by government and with government as their only customer, the federal armories, beginning particularly in the late 1840s, were able to give full sway to the "technological enthusiasm" of engineers, and, *heedless of cost*, could develop mass production of firearms with perfectly interchangeable parts. This aesthetically pleasing but

costly method of manufacture gradually spread its way from the public sector to private mass production. Thus, modern mass production was a creation of government typically heedless of cost rather than of private entrepreneurs functioning in a market economy.

But now comes Donald Hoke, in this exciting and highly significant work, to upset completely the Hounshell-Smith picture of "Armory Practice" as the key to the development of mass production in America. While building upon Hounshell's work, Dr. Hoke stands Hounshell on his head. Hoke makes it clear that he is an old friend and colleague of Hounshell's: both of them emerging from the remarkable economic history and history of technology program of the Hagley Foundation and the University of Delaware. Hoke demonstrates conclusively that, long before Armory Practice, mass production was brought to American industry by the remarkable engineer-entrepreneur, Eli Terry. As early as 1807, Terry, an ingenious Connecticut Yankee, created a wooden movement clock industry, as a mass produced clock with interchangeable parts, completely superseding the old hand crafted clock. In 1814, Terry delivered another shock to the clock industry, by creating the highly successful wooden movement shelf clock, as compared to the "hang-up" clocks previously dominant. In contrast to the highly costly arms manufacture, Terry's clock process was adopted precisely because it drastically *lowered* costs, and could thus be sold at a very low price and create a new mass consumer market for clocks that had previously been a luxury item for the wealthy.

One of the keys to this private mass production, which Hoke shows was to become the rule throughout American industry, was that the parts were not *perfectly* interchangeable, an inordinately rigid and expensive procedure. Instead, the wooden clocks and private manufacturing in later industries, were *designed* to be not "perfect" but adjustable, with built in adjustable elements such as screws, which allowed the parts to be fitted in each unit at the final assembly. Thus, interchangeability was not "perfect," but as much as necessary. This built-in flexibility allowed mass production to cut costs; for, in contrast to government operation, the emphasis by Terry and later private producers, was on cutting costs of manufacture and on easy use by the consumer. Hence, Terry and his successors were driven, not just by technological enthusiasm, but by such enthusiasm intimately combined with a continuing quest to make products more cheaply and to render them more usable by the

consumer. All this development was made possible by close cooperation between engineers and entrepreneurs; in this way, technology was always advanced in close collaboration with private, profit-seeking entrepreneurs for the benefit of the mass of consumers.

The next great case of mass production was the axe handle industry, developed in the 1830s and 1840s, also in Connecticut, by the creative engineer, Elisha K. Root, in collaboration with the far-seeing entrepreneur, Samuel W. Collins. Once again, the key was profit-seeking and cutting costs, and in the case of Root, in an integrated, systems approach. And rather than this mass production being influenced by Armory Practice, it was the Colt armory that hired Root, eminent from his development of axe handle factories, to manage its arms production at the end of the late 1840s. Thus, the major influence was, contrary to Hounshell, not so much from Armory Practice to private industry, as the other way around.

Donald Hoke goes on to study two other prominent cases beginning around the Civil War and also relatively neglected by historians: the intricately precise typewriter industry, and watch manufacturing as established by the Waltham Watch Company at Waltham, Massachusetts. In all cases he found the same pattern: emphasis on profit-seeking through cost-cutting and the development of a mass market; adjustable rather than "perfect" interchangeability; and collaboration between engineers and entrepreneurs. Not only that: In each and every case, Hoke found that not only was the industry private, but that there was virtually no reliance on government subsidies, or even on government contracts or purchases. The American System of mass production was private and market-oriented through and through.

Why have David Hounshell and other previous historians missed the boat so badly? Why, in particular, was the great pioneer Eli Terry virtually unknown before resurrected by Donald Hoke? Hoke's hypothesis is that Hounshell and the others have been deficient as antiquarian engineers: that is, they work solely from documentation and never from close study of the three-dimensional, old *objects* themselves. Hoke shows that Hounshell shows pictures of the objects produced in the nineteenth century only to illustrate his story, not as objects of study themselves. Hence, Hounshell and the others get the story wrong. Hoke, steeped in antiquarian engineering and in its journals, and therefore in close study of the objects themselves,

was able to avoid this error.

In sum, *Ingenious Yankees* is a superb book, providing a new paradigm of American technological history consonant with sound economics, based on thorough scholarship and a deep study of the produced objects themselves. It combines sparkling writing, bursting with the excitement of his paradigm discovery, with meticulous detail on the specific engineering innovations and their broader significance. There are also fascinating nuggets of insight that I hope Hoke or others will pursue further. Thus, Hoke finds absolutely no labor strife in these private mass production industries, despite their often rapid technological change. This harmony contrasts, for example, with the bitterness of many craftsmen working in the Harpers Ferry Armory. It is very possible that the technological force-feeding of government operation created more resentment than the cost- and customer-conscious collaboration between entrepreneurs and engineers. Hoke also notes the fundamental error of those historians who wail about mass-production workers being reduced to skillless machine operatives, deprived of the high skills of their craftsmen-fathers. Hoke replies that, not only did mass production create many more jobs, but that the new mass production required and developed many *new* skills, including invention, production, maintenance, and repair. The new skills were different from those of craftsmen, but the skills were still extensive.

Hoke also makes some telling points about later periods in American history. He shows that even Henry Ford was engaging in misleading bravado when he proclaimed that there were “no fitters” in this mass production; on the contrary, even automobiles needed adjustments and fitting. Even on Hounshell’s own turf of the bicycle industry, Hoke shows that Alexander Pope’s bicycle factory was not nearly as Armory Practice oriented as Hounshell claims, that his machine tools were adjustable rather than “perfect” and that Pope’s increasingly successful competitors after the mid-1880s were even farther removed from Armory Practice.

With the appearance of *Ingenious Yankees*, the history of technology has become more deeply scholarly, focusing at last on the profound study of the actual three-dimensional technological objects, and at the same time, becoming integrated with social and economic history as well as with the teachings of economic theory. In his preface, Hoke quotes the eminent historian of medieval technology Lynn White, Jr. that “the history of

technology is, emphatically, fun." In the hands of Donald Hoke, at least, it certainly is.

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The Limits of Government. By David Schmidtz. Boulder, Colorado: Westview Press, 1991.

David Schmidtz's illuminating new book subjects to careful examination a key argument used to justify governmental intervention into the free market. Some economic goods, it is alleged, the market cannot produce efficiently. Roughly speaking, goods will be produced if the gains expected by their producers exceed the costs involved in their manufacture. Some goods, e.g., national defense, have features that skew the market from an approach to efficiency. The goods in question, termed public goods, are characterized by jointness of supply and nonexcludability.

If produced, they are available to everyone within a given area. If, e.g., a drive-in movie is visible from the street, anyone who passes by may watch it, not just those who bought tickets to it. If, for example, some of the passersby would have been willing to purchase tickets had the film been otherwise unavailable, then (so it is claimed) a problem exists.

The movie is underproduced. The owner of the theater takes into account only the gains from those who pay admission; he receives nothing from passersby who free ride. Private cost and public benefit in public goods diverge. To expunge the gap, various remedies have been proposed, most of which involve resort to the state.

Schmidtz begins his assessment of the public goods problem by discussing several fundamental issues of political theory.

He first analyzes the nature of justification, finding two basic sorts of reason by which political institutions can be supported. The first is teleological justification: here the institution has a feature or promotes a goal which counts as a reason for establishing or maintaining it. An emergent justification, by contrast, claims that the manner in which an institution has been established justifies it.

Many political theorists claim that the state promotes civil peace, welfare, etc., better than alternative arrangements. Others argue that if a state arises by popular consent, it holds power rightfully. The first of these claims is a teleological justification; the second, an emergent. Schmidtz cogently argues that these two patterns constitute the principal sorts of justification for the state. As he notes, the two forms are not the only conceivable types of justificatory argument: Besides his own example, a

theory that required the state to be justified both teleologically and emergently would fit neither type alone. Though neither mutually exclusive nor exhaustive, the two types are of great importance.

Schmidtz uses his classification scheme to make an intriguing claim about a style of argument popular in recent political thought. Some writers maintain that institutions are justified by what people under given conditions would rationally find it in their interests to accept. Schmidtz maintains that the apparent form of the argument masks its true character. It is not an emergent argument but rather a teleological one, since its "consent" is hypothetical. More radically, Schmidtz avers that to grasp the true force of a hypothetical consent argument, one must cast aside the imaginary story in which it is cloaked. The consent that would occur, e.g., in Rawls's original position, comes about for certain reasons. It is these reasons that bear the brunt of the argument.

Schmidtz states the essence of his case with characteristic lucidity: "The hypothetical story adds nothing whatsoever. It certainly does not add consent, for the story is only hypothetical" (p. 6). I am not sure that Schmidtz's provocative argument succeeds. Why cannot a teleological justification claim that an institution has the following good-making feature: it would be agreed upon by persons under stated hypothetical conditions?

Perhaps this sort of teleological argument always fails, and I certainly have no wish to defend it. An advocate would need to show why the feature in question added to the moral value of the institution having it. But in form, at least, I can see nothing wrong with the argument. The good-making feature is not the reason the hypothetical actors consent: it is rather their hypothetical consent itself. Schmidtz is surely correct that reasons need to be advanced in defense of the claim that consent would occur; but I cannot see that this always suffices to show the hypothetical consent does no work.

Schmidtz now turns to a subject of concern to everyone interested in libertarian theory: the Lockean Proviso. In one of its forms, this principle has seemed impossible to satisfy; it requires initial appropriators of property to leave "as much and as good" as they take for others.

Suppose that a parcel of land is divided into one hundred lots, identical in all qualities. Further, assume that there are one hundred settlers who use the land in common. If someone takes one of the lots, he has left ninety-nine lots for everyone else. Has

he left “as much and as good” for others? On one reading of the Proviso, he has not; by removing one lot, everyone else has one fewer choice available.

The problem of satisfying the Proviso becomes even more severe if one takes into account future generations. One must now leave as much and as good for those who will come into existence. Schmidtz finds it plausible to extend the Proviso in this way, although he does not specify how many generations need to be considered.

Schmidtz seems on the surface to have painted himself into a comer. He has presented a version of the Proviso which seems on its face to rule out the initial acquisition of property; yet he wishes to defend property acquisition. With a bold stroke, Schmidtz extricates himself from the difficulty; the Proviso actually mandates the acquisition of property. “*Leaving goods in the commons fails to satisfy the Proviso*. In fact, leaving goods in the commons practically insures their ruin” (p. 21, emphasis in original).

The argument Schmidtz deploys is straightforward. If land is worked in common, then individuals have little incentive to conserve resources. Persons do not bear the full cost of their actions; if, e.g., someone grazes cattle on common land in a wasteful manner, most of the ensuing costs will be borne by others. The upshot will be what Garrett Hardin has famously called a “tragedy of the commons.” Since property rights have not been established, the available resources will quickly sink to nothing.

If so, Schmidtz ingeniously contends, the Proviso mandates establishment of a system of property rights. The erstwhile irremovable bar to property rights has become their chief support. If it is objected that individuals who arrive on the scene later than the original appropriators can no longer themselves acquire unowned property, Schmidtz has a ready response. The Proviso requires that future generations have resources to use, not to appropriate. They are not harmed by having to acquire property from others.

Schmidtz’s brilliant discussion will be a must for all future work on the Lockean Proviso. A few clarifications and objections, however, require mention. First, a point I think Schmidtz recognizes, he has not argued that the Proviso is morally required. It is not at all obvious why original appropriators must leave as much and as good for others: if one holds a strong labor-mixture theory of original acquisition, e.g., the limitation

imposed by the Proviso will seem implausible.

It might be objected that Schmidtz has given an argument for the Proviso. Unless it is satisfied disaster will ensue through a tragedy of the commons. Is this not a very strong reason for accepting the Proviso as Schmidtz construes it? But what Schmidtz's point shows is that a society ought to have a system of property rights rather than allow unrestricted common use of resources. One need not fulfill the Proviso to meet this requirement. A system that requires individuals to bear the cost of their own waste of resources will prevent a tragedy of the commons, even if it leaves some people worse off than they would have been before the system was established. Suppose, e.g., that a few people in a society are totally denied any access to resources. The rest maintain a standard free-market system. There is no tragedy of the commons, but the Proviso is not satisfied.

Further, it is not apparent why Schmidtz deems it obvious that the Proviso must be extended to future generations. Why is it irrational to hold that one's obligations extend only to actual persons, not to persons who do not now exist? I do not argue that Schmidtz is wrong: it just is unclear why he thinks the issue requires no discussion.

To turn now to the substance of his argument; does the Proviso in fact require that property be removed from the commons? Schmidtz is of course correct that land is not being used efficiently in the situation he depicts. But it does not follow at once that a tragedy will ensue; this depends on circumstances. How much of a deviation will there be from efficient use? If the deviation is not substantial, then how strong is the requirement that enough and as good be left for others? It seems implausible that we are morally obligated to install a system providing for the highest possible degree of efficiency. If the use of land does not prevent successors from doing about as well as current users, why is there cause for complaint? (Perhaps if one took into account many future generations, however, a sorties problem might reinstate the Proviso.) It may well be, though, that Schmidtz is correct about most real-world situations, in which case his argument has outstanding practical importance.

One more difficulty needs to be treated, but this fortunately can easily be remedied. Suppose that common use does in fact result in rapid impoverishment of everyone. Has the Proviso been violated? No, since as stated it restricts only those who appropriate property; by hypothesis, there are none in the

present case. But the modification of the Proviso which Schmidtz requires to meet this minor point is obvious and will be left "as an exercise for the reader."

Schmidtz continues with more provocative and insightful analysis in his third chapter; there the subject is the right of punishment. His surprising conclusion is that "a state can acquire an exclusive right to punish even if individuals also have a right to punish and even if they do not relinquish that right" (p. 34).

Although Schmidtz developed his view of punishment as a response to a problem in Robert Nozick's treatment of risk, he approaches matters in a very different way from Nozick. The risk that concerns Schmidtz is danger to innocent bystanders—presumably when someone tries to enforce a sentence upon a recalcitrant offender. Although Schmidtz avoids postulating a right not to be put at risk, he does assume that one has no right to impose unnecessary risks on others. If the state can reduce risks to innocent bystanders below the level prevalent in self-help enforcement, then people are no longer at liberty to punish those who have injured them.

To reiterate, Schmidtz does not contend that one forfeits the right to punish in these circumstances. Rather, one cannot exercise one's right, since an alternative exists less liable to place bystanders at risk.

Once again, Schmidtz's ingenuity compels admiration. He again and again comes up with original ideas that challenge and instruct. But should we accept his argument? I am inclined to think not. First, an analogous point to one raised in the discussion of the Proviso emerges here as well. Why should we be required to maximize safety to innocent bystanders? So long as private enforcement does not place innocent bystanders at substantially more risk than does state enforcement, why should one insist on the least possible risk (consistent with having sentencing at all)? As will later be apparent, Schmidtz himself uses the distinction between "good enough" and "best possible" in his later discussion of public goods; does it not also apply here?

Further, why does Schmidtz think it likely that private enforcement will be riskier to bystanders than state enforcement? Perhaps he has in mind something like this: I attempt to take back my wallet from a thief. He sees no reason to return it to me, and in the ensuing struggle, people are injured. Had the police dealt with the thief, the bystanders could breathe a sigh of relief. Although on occasion criminals "shoot it out" with police,

resistance is much less likely to occur.

No doubt matters often take place in the way just described. But it does not follow from this that individual enforcers need abandon their activities. They need only choose their opportunities carefully. They can, e.g., take care to have sufficient force to deter the criminal from resisting. One way to do this is to hire a private protection agency to enforce judgment: If the agency were sufficiently powerful, resistance seems an unlikely prospect for the same reason that relatively few people resist arrest by the police. Another possibility is to pick one's spots carefully so that no innocents stand in danger.

Suppose, however, that Schmidtz's picture perfectly matches reality: A single dominant protection agency is vastly less liable to expose bystanders to danger than any combination of independents. Have we obtained a state? I cannot see that we have. It might be the case that the single agency able to enforce sentences could do nothing else. The mandate for punishment would always come from an independent. I do not claim this possibility is more likely to arise than the one Schmidtz envisions, but only that his argument does not exclude it.

A strong point of Schmidtz's work is that he attempts to meet in advance objections to his argument. One such objection suggests, following Guido Calabresi and A. Douglas Melamed, that injury to innocent bystanders be handled differently from Schmidtz's approach. Instead of prohibiting independents from enforcement, why not compensate innocents who are injured?

To this Schmidtz replies that the bystanders are being subject to pointless risks. Thus, the case should be governed by a property rather than a liability rule, to use Calabresi's terms: Prohibition rather than compensation is the indicated course.

Schmidtz's supposition of pointless risk does not cover all relevant cases. What if the state does not impose exactly the same punishment as the independent would have done? What if the state finds the criminal innocent, or fails to take up the case at all? Here one cannot say the risk is pointless—even if Schmidtz's argument were otherwise acceptable, it would not apply to independents in these circumstances. But what of instances in which Schmidtz's account exactly fits? I am not sure that even in this type of case, the risk is pointless: what if someone values protecting his own rights? But what if the risk *is* pointless? Schmidtz gives no argument that prohibition rather than compensation is the proper course to follow. But I have no argument to offer that he is wrong.

Schmidtz introduces the principal topic of his book, the provision of public goods, with an excellent analysis of the Prisoner's Dilemma. Many writers view the supply of public goods as raising the same problem as the classic Dilemma: supplying the good is collectively rational; but, for each person, refusal to cooperate in its supply dominates contributing. Since no person's actions will substantially affect supply of the good, everyone individually seems better off refusing to contribute, regardless of what others do.

Schmidtz very usefully divides the difficulty of securing cooperation into two parts. On the one hand, the familiar free-rider problem arises: Although everyone is better off if the public good is supplied, for each person refusal to contribute dominates contributing. On the other hand, the free-rider problem, as Schmidtz convincingly shows, does not exhaust the difficulty of the Dilemma. He draws attention to the assurance problem: People willing to contribute do not wish their contributions to go to waste by failure to secure enough donors to produce the good.

Does the problem of supplying a public good, analyzed as a Prisoner's Dilemma, require forcible intervention for its resolution? Schmidtz does not think so; he shows that voluntary agreement suffices. His solution accents the assurance problem. A universal contract will suffice to prevent contributions from being forfeited without result. The terms of such an assurance contract provide that everyone agrees to contribute to the provision of the public good, if and only if everyone else does. Further, with a unanimous agreement, the remaining obstacle to a cooperative solution also dissolves. There are no free riders, and individual rationality now coincides with what best secures the welfare of the group (p. 57).

One might at first object that Schmidtz has by his assurance contract merely pushed back the difficulty. How is compliance with the contract to be secured? Will this not in turn generate another Prisoner's Dilemma, this time to be resolved only by force? To this difficulty Schmidtz has a response: Contract enforcement is not a public good since it is not characterized by jointness of supply. Those who do not purchase this good will not secure the enforcement of their contracts.

If it is now objected that contract enforcement depends upon force, Schmidtz once more has an ingenious reply. Signers of a contract cannot rightfully complain if they are compelled to observe its terms, since they have agreed to do so. The agency that in fact enforces contractual arrangements cannot then be

legitimately questioned, since it might have arisen voluntarily.

But what if it did not? Schmidtz now produces the ingenious counter just mentioned. Even if the enforcement agency has not arisen through voluntary agreement, its activities do not depend on its having arisen through the use of force. The reason for this is just that an enforcement agency might have arisen voluntarily: How the agency arose does not affect the legitimacy of its present activities. (How it arose may of course affect whether it, rather than some other group, is best entitled to perform these activities.)

Thus Schmidtz has virtually completed his case. Public goods can be produced voluntarily, and nothing in the means required to do this need violate rights. This part of Schmidtz's argument seems to me eminently successful. One point that might require further development has to do with the existence of individual property rights, necessary for a free market to function. To fully complete his case, Schmidtz needs to show that these rights do not depend essentially on the use of force for their establishment. I see no reason to think that this cannot be done.

A unanimous assurance contract by no means puts paid to all problems about public goods. Not all public goods can be analyzed as a Prisoner's Dilemma game, the players of which are a society's entire population. Some people may not regard the public good as desirable at all: Opponents of United States foreign policy, e.g., will not wish to purchase the "public good" of national defense. Others may rate certain public goods as worth less to them than the contribution required through an assurance contract.

Why not then confine the assurance contract to those who do think the public good worth securing? In Schmidtz's view, this solution generates a further problem. Some people may actually want the good; but, knowing that those who do not are not required to contribute, they may disguise their true wishes. Falsely pretending to be genuine holdouts, they hope by their strategic behavior to gain the good for nothing. The free-rider problem reemerges.

A further difficulty complicates the public goods problem even more. Unanimous consent is in practice intolerably cumbersome to achieve: It is likely that the market solution will consist of an assurance contract of fewer than the total number of those who want the good. The number required will vary with the minimum number needed to produce the good (unanimous

consent will presumably still be required for a pure public good, in which no coalition suffices for its production). Once more free riders threaten.

Schmidtz suggests several principles to aid in the solution of these problems. He sets forward conditions under which he thinks people stand under an obligation to contribute to the provision of public goods they want. But obligation does not generate by itself liability to be coerced by others, should one fail to fulfill one's duty. Because of the tendency of government officials to advance their own interests, abundantly documented by public choice economists, it is highly unlikely that government intervention will bring about a better state of affairs than the free market. On the contrary, it is a safe bet that the government will worsen things. Schmidtz accordingly holds that the government should stay out of public goods provision, except in emergencies in which immediate action is required to prevent the destruction of society.

Schmidtz does not confine himself to a purely speculative account of how the market might produce public goods. He describes several experiments, some of which he helped to design himself, which have endeavored to determine how people might handle public goods provision. The experiments provide some evidence for the view that people will voluntarily agree to produce public goods, although their behavior does not conform to theoretical models of rational choice. To those who object that the experiments are artificial, not genuine tests of market behavior, Schmidtz has a clever answer.

Theories of public goods production should, if correct, apply to experimental situations, since these fall within the scope of the theories' postulates. The experiments Schmidtz describes thus are more than simulation of actual market behavior: they are themselves "real-life" tests.

Austrians may be inclined to look on experimental economics with a jaundiced eye, but I think Schmidtz escapes danger from this front. He does not claim that he has an airtight model, deductively derived from self-evident axioms, specifying when it is rational for persons to contribute to public goods. He need not be taken as committing himself to the view that all economic theory requires empirical verification.

On another point, though, Schmidtz's analysis sharply contrasts with a Misesian position. On the "demonstrated preference" view, only persons' actual choices are counted as genuine preferences. Counterfactual preferences are banned from

praxeological analysis. As one can readily imagine, this has quite drastic consequences for the public goods problem; Hans Hoppe, most notably, has used demonstrated preference in an attempt to undermine standard accounts of public goods.

I strongly suspect that Schmidtz thinks this view mistaken. I wish he had spent at least a short time discussing the issue, as the question is of concern to many philosophers and economists of free-market orientation. But given the wide range of topics Schmidtz does cover, I am no doubt unfair in my complaint.

To return from Austrianism to Schmidtz, his skepticism about the role of government in the supply of public goods seems eminently justified. His careful distinction between obligation and liability to coercion is particularly excellent.

On one point, however, Schmidtz might usefully have extended his skepticism. He assumes that free riding, and perhaps certain other kinds of strategic behavior, are morally questionable. Thus, he holds that if one benefits to a sufficient extent from a public good, one ought to contribute to its production. Further, though I may be mistaken, I think he finds morally problematic pretending for strategic reasons to be a holdout.

Though most philosophers interested in this area agree with Schmidtz, I do not think it at all obvious that something is wrong with free riding. *Prima facie*, the free rider (or strategic bargainer) is acting to secure his own interests: what exactly is his moral offense?

It might be said that free riding prevents a group from maximizing its collective welfare. But why is this a reason to hold the practice morally wrong? Is one under an obligation to avoid interfering with the use of resources to maximize collective welfare? On certain consequentialist views, the answer is yes; but these positions cannot simply be assumed as given.

Schmidtz might reply that this objection underestimates the force of the considerations against the free rider. It is not only the group that will benefit if no one free rides: With an assurance contract, everyone, including potential free riders, will be better off than if each person is free to act as he pleases. But this at most shows that one would be irrational (or not rational in Schmidtz's sense [p. xvi]) in refusing to sign an assurance contract. An additional premise is needed to generate a moral obligation.

Schmidtz, as one might expect, knows this full well and has just the moral premise that will do the trick. His feedback theory

of morality tests moral norms by the question: "Is this norm conducive to a cooperative society's success, given how people will react both to it and to agents guided by it" (p. 153)?

Granted that social cooperation is a *conditio sine qua non* of human happiness and survival, does it follow that one must take maximizing cooperation as the test of morality? Why is it not sufficient to secure some threshold of cooperation, after which this value might find itself in competition with other values? This point generalizes a criticism made earlier about Schmidtz's discussion of the Proviso. From "x is good," the further statement "maximize x" does not follow. Of course, I have not shown that one should *not* aim to maximize social cooperation: The point, rather, is that the matter is more controversial than Schmidtz allows.

The case against the free rider suffers from a more fundamental flaw. The argument against him, very roughly, is that cooperation is desirable; free riding impedes cooperation; therefore, free riding is *prima facie* objectionable. A problem with this argument emerges if one considers once more Schmidtz's convincing analysis of the Prisoner's Dilemma.

In that analysis, two problems produce the Dilemma: besides the free rider difficulty, there is also an assurance problem. If free riding is objectionable just because it impedes cooperation, why is there no similar objection to someone wishing assurance that his contributions will not be wasted? Schmidtz does not call for the curtailment or reduction of the desire for assurance; instead, he caters to this desire through the assurance contract. Why the difference? The objection to free riding cannot *just* be that it blocks cooperation. What then is it?

I fear that I have gone on too long, but this is an endlessly fascinating book. Many of its themes I have had to omit: I think particularly of the illuminating discussion of what Schmidtz terms the concatenated Prisoner's Dilemma (pp. 101–02)[1] and the use of his feedback theory to derive a rule of reciprocity in cooperative ventures.

The Limits of Government is an outstanding work, manifesting the remarkable philosophic talent of its author.

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[1] Schmidtz suggests, following David Kreps, that someone playing an iterated or concatenated Dilemma with an opponent having an established reputation for reciprocity ought rationally to cooperate rather than use the backward induction paradox to justify noncooperation. But might the paradox interfere with developing such a reputation?

Ludwig von Mises on Principle

Larry J. Eshelman

Ludwig von Mises was one of this century's most principled and uncompromising defenders of laissez faire. He was also an outspoken advocate of utilitarianism and the doctrine of social expediency, and a critic of any kind of objective ethics such as natural law or natural rights. This raises the obvious question as to how successful Mises was in turning the sow's ear of social expediency into the silk purse of laissez faire.

Murray N. Rothbard's answer is that Mises was not successful—that no one, not even Mises, could accomplish such a feat (1982, pp. 205–13). Henry Hazlitt (1964) and Leland Yeager (1992), on the other hand, have argued that utilitarianism really is not the sow's ear that its critics have made it out to be—or at least not the brand of utilitarianism that they attribute to Mises: indirect utilitarianism. Furthermore, they argue that only utilitarianism, properly understood, can provide a moral foundation for laissez faire.

While I agree with Rothbard that utilitarianism, whether direct or indirect, cannot provide a principled defense of laissez faire, I shall argue that Mises's method of justifying laissez faire has more in common with the natural rights approach of Herbert Spencer and Auberon Herbert than the utilitarianism of Bentham and Mill. It should be stressed that I am not disputing the easily documented fact that Mises proclaimed himself to be a utilitarian, and was highly critical, even scornful of natural law and natural rights doctrines (Rothbard 1980). One can dredge up quote after quote where Mises defends utilitarianism and social expediency and attacks natural law and natural rights theories. On the other hand, one cannot ignore Mises's "apparent use of natural law-type constructs, in spite of his explicit rejection of natural law" (Tucker and Rockwell 1991, p. 48).

In trying to understand Mises's relationship to the natural law tradition, one should keep in mind, as Mises pointed out, that the natural law tradition is made up of a "bewildering diversity of doctrines" (1957, p. 45). The same can be said of utilitarianism. Defenders, as well as critics, of these traditions

rarely agree as to what constitutes their defining criteria. For example, if one believes that the essence of the natural law tradition is the fusion of the "ought" and the "is," or the doctrine that Nature has a purpose and morality consists in following Nature's intentions, then clearly Mises stands opposed to that tradition. There are, however, other important features of the natural rights tradition, especially with regard to methodology, that generally distinguish it from the utilitarian tradition.

In the next three sections I distinguish three different senses in which one may be properly labeled a utilitarian: (1) a nonmoral *functionalist* sense concerned with whether means are efficient; (2) a moral sense concerned with *social harmony*, and (3) a methodological sense in which alternative institutions and actions are *compared* with regard to how well they promote utility. It is my contention that Mises was a utilitarian in only the first two senses, and that his criticism of the natural rights tradition is aimed mainly at what he conceived to be its irrational, nonfunctional aspects—i.e., its appeal to intuition. In the remaining sections I argue that Mises's methodological approach to morality is more akin to the principled (or *categorical*) stance taken by defenders of the natural rights tradition rather than the *comparative* stance taken by utilitarians such as Bentham and Mill.[1]

Functionalism versus Intuitionism

It is important to begin by clarifying what Mises means by utilitarianism, and this can best be done by understanding what he was contrasting utilitarianism with. For Mises the alternative to utilitarianism is an appeal to "intuition" (1922, p. 360; 1966, p. 883; 1957, pp. 53, 58), to an "inner voice" (1933, p. 41; 1957, p. 53), to "considerations hidden to the human mind" (1966, p. 148), to "arbitrary laws imposed upon man by a tyrannical Deity with which man has to comply without asking any further questions" (1962, p. 105). For the intuitionist moral laws are viewed as "instruments by means of which God or Nature directs human action according to inscrutable design" (1945, p. 223). Mises places natural law and natural rights in the intuitionist camp, and therefore rejects them as irrational and arbitrary.

Although I think that this turns the natural law tradition into a straw man, it must be admitted that there have been strong intuitionist elements within the natural law and natural rights tradition. For example, Aquinas postulated the special faculty of

synderesis as the source of our knowledge of principles of natural law, and Locke's principal argument for natural rights seems to hinge on the premise that God is our Maker (1988, p. 271). What makes Bentham's utilitarianism appealing to many rationalists, including Mises, is that Bentham swept away the remaining intuitionist vestiges of natural law. Unfortunately, Bentham threw out more than the murky bath waters of intuitionism.

To avoid stacking the deck against the natural law and natural rights traditions by identifying utilitarianism with reason and natural law with intuition, I suggest that we re-label this contrast as "functionalism" versus "intuitionism." As Hayek pointed out, if we refer to "any critical examination of such rules and of institutions with respect to the function they perform in the structure of society" as utilitarianism, then "every one who does not regard all existing values as unquestionable but is prepared to ask why they should be held would have to be described as a utilitarian. Thus Aristotle, Thomas Aquinas, and David Hume, would have to be described as utilitarians" (1976, p. 17). What Aristotle, Aquinas, Hume, Bentham, Mill, and Mises have in common is not some appeal to "the greatest happiness for the greatest number," but a belief that morality serves some earthly social function and can be understood by reason, as opposed to something "imposed on mankind by mysterious powers" (1933, p. 42).

Although the term "utilitarianism" has become identified with Bentham's doctrine of "the greatest happiness for the greatest number," i.e., with the maximization of utility or social welfare, one must keep in mind that when Mises advocates utilitarianism he is often simply advocating that we ask what the purpose of a policy, institution, etc. is and judge it by how well it achieves this purpose. As such, functionalism is not a moral doctrine, although it can be applied to morality. In the next section I will examine functionalism as it relates to morality, but here I am concerned with generic, nonmoral functionalism.

The functionalist judges acts (or policies) in terms of how adequate (or efficient) they are as means for accomplishing a given end. In other words, all "oughts" are hypothetical or conditional and are of the form: "If you want to accomplish *E*, then you ought to do *M*." The end or goal is not judged. Only the means are judged as to whether or not they are appropriate to the given end. Even if one considers the goal evil, one can still judge certain means as more appropriate for accomplishing that goal, and thus good, relative to the goal. Thus Mises, as a

functionalist, says, "if there were people who consider it as the ultimate end of their endeavors to destroy civilization . . . , then we could not help applying to their doctrines the standard of their ultimate end" (1949b, p. 300). (There remains the question as to whether it would be ethical to give helpful advice to someone who is intent upon destroying civilization.)

This is the brand of utilitarianism with which Mises, like most economists, feels most comfortable. He can make judgments without abandoning the value-free stance of the economist. Mises speaks (1966, p. 764) as a nonmoral functionalist when he asserts, "Economics does not say that . . . government interference with the prices of only one commodity . . . is unfair, bad, or unfeasible. It says . . . that it makes conditions worse, not better, *from the point of view of the government and those backing its interference*." Rothbard (1982, p. 206) quotes this passage and asks, "[H]ow does Mises know *what* the advocates of the particular policy consider desirable?" But I do not think this criticism hits the mark. Mises's point is simply that such policies will not accomplish their proclaimed goals. Those who advocate a minimum wage, for example, may really want to make nonunion labor uncompetitive, but their *proclaimed* goal is that they want to help the poor. By showing that certain policies will have the opposite effect from that proclaimed, the functionalist can undermine the arguments used in support of these policies.

If people's goals were so diverse that hardly any two people shared the same goals, the functionalist would not have much to contribute. But Mises contends that most people share certain goals. In particular, he asserts that most "people prefer life to death, health to sickness, nourishment to starvation, abundance to poverty" (1966, p. 154). In so far as the socialist or interventionist argues that his policy will make people more prosperous, he is subject to criticism from the functionalist standpoint (1927, pp. 7–8; 1966, p. 183). It should be stressed that Mises is not giving any *moral* relevance to the fact that the majority prefers prosperity to poverty. For the generic functionalist such facts concerning majority preferences have only practical relevance—i.e., arguments concerning appropriate means will be relevant to more people than if only a minority shared this goal.

In order for nonmoral functionalism to be an appropriate mode of argument, however, it is not enough that everyone agree upon the end in question. While it may be true that most people

value prosperity and abundance, it is not true that these are their only goals (Rothbard 1982, p. 209). Almost any policy purporting to achieve a particular end will affect other ends as well. The functionalist cannot ignore these other ends. Suppose, for example, most people are willing to trade off some prosperity for increased economic equality. The functionalist's argument that certain alternative policies lead to greater prosperity is no longer relevant if these policies cause greater inequality. In fact, Mises recognizes this weakness in the functionalist argument. He suggests that the socialist might reply to the argument that there is greater prosperity under capitalism as follows: "Granted that each individual will be worse off under socialism than even the poorest under capitalism. Yet we spurn the market economy in spite of the fact that it supplies everybody with more goods than socialism. We disapprove of capitalism on ethical grounds as an unfair and amoral system. We prefer socialism on grounds commonly called noneconomic and put up with the fact that it impairs everybody's material well-being" (1966, p. 679). Mises's comment is, "If no other objections could be raised to the socialist plans than that socialism will lower the standard of living of all or at least of the immense majority, it would be impossible for praxeology to pronounce a final judgment" (1966, p. 679).[2]

Another problem with nonmoral functionalism is that it is not very useful for making a case against forms of statist intervention that have little effect upon prosperity, e.g., oppression of the majority against a small minority (Rothbard 1982, p. 211). In order to attack these forms of statist intervention, the laissez-faire liberal needs a stronger argument than nonmoral functionalism—he needs some kind of moral argument. As we will see in the next section, Mises indeed does resort to a form of moral functionalism when defending laissez-faire liberalism. I will argue in the subsequent sections, however, that his moral functionalism is not the moral utilitarianism of Bentham and Mill.

Social Harmony

The functionalist approaches morality by first determining the function or end of morality, and then assessing various moral rules according to how well they serve this function. For Mises, as for most moral functionalists, the function of morality is the preservation of the social order: "Everything that serves to

preserve the social order is moral; everything that is detrimental to it is immoral" (1927, p. 34). "The ultimate yardstick of justice is conduciveness to the preservation of social cooperation. Conduct suited to preserve social cooperation is just, conduct detrimental to the preservation of society is unjust" (1957, p. 54). If man were not a social being, he would not need morality. "Morality consists in the regard for the necessary requirements of social existence that must be demanded of each individual member of society. A man living in isolation has no moral rules to follow" (1927, p. 33). Throughout Mises's writings the stress is on the "preservation of society" (1966, p. 149), the "preservation of peace" (1966, p. 149), and the "preservation of social cooperation" (1962, p. 105). For Mises, "Human society is an association of persons for cooperative action" (1927, p. 18), and cooperation presupposes peace. "Society has arisen out of the works of peace; the essence of society is peacemaking" (1922, p. 59). "The goal of liberalism is the peaceful cooperation of all men" (1944, p. 50).[3]

To avoid the ambiguities associated with "utilitarianism" as a moral theory and to avoid begging the question against "natural rights," I suggest we call anyone who views the primary aim of justice to be the "securing a peaceful living together" a *social harmonist*.[4] A moral rationalist, in the sense of a social harmonist, is someone who believes that a society of morally rational individuals would exist in a state of social harmony. In other words, it would be a peaceful society with no need for coercion. Societies only have to resort to coercion because not everyone is rational in this social sense. Mises explicitly states that social harmony is the ideal and is possible: "The ultimate ideal envisioned by liberalism is the perfect cooperation of all mankind, taking place peacefully and without friction" (1927, p. 105). "If all men were able to realize that the alternative to peaceful social cooperation is the renunciation of all that distinguishes Homo sapiens from the beasts of prey, and if all had the moral strength always to act accordingly, there would not be the need for the establishment of a social apparatus of coercion and oppression" (1962, p. 98).

Mises's stress upon preserving social peace certainly fits in with the utilitarian tradition of J. S. Mill. When discussing justice, Mill stresses social peace: "It is their observance [of the rules of justice] which alone preserves peace among human beings; if obedience to them were not the rule, and disobedience the exception, everyone would see in everyone else an enemy

against whom he must be perpetually guarding himself" (Mill 1971, p. 54).

It should be pointed out, however, that this stress upon social harmony, although part of the utilitarian tradition, is not unique to that tradition. Herbert Spencer, for example, describes his theory of justice as an "attempt to find a definite expression for the fundamental principle of harmonious social order" (Spencer 1978, p. 66). Given that some utilitarians have claimed Spencer as a fellow-traveler, it should be noted that Lysander Spooner, who has never been mistaken for a utilitarian, states that the natural law is "the science of peace; and the only science of peace; since it is the science which alone can tell us on what conditions mankind can live in peace, or ought to live in peace, with each other" (Spooner 1982, p. 5). Along these same lines, Locke wrote that the law of nature "willeth the Peace and *Preservation of all Mankind*" (Locke 1988, p. 271).

More generally, according to A. P. D'Entrèves, one the foremost scholars of natural law, the primary focus of much of the natural law tradition has been on the preservation of society:

> No doubt natural law, as a moral precept, extends to "all acts of virtue." But human laws cover only those aspects of human behavior which imply a coordination with other men. Thus, properly speaking, the laws of men do not primarily aim at virtue, but only at securing a peaceful living together: they do not forbid all that is evil, but only that which imperils society. (D'Entrèves 1970, p. 84)

Thus, we must include as social harmonists not only utilitarians such as Bentham and Mill but also modern natural rights theorists such as Locke and Spencer and most ancient and medieval natural law theorists. If there are any natural law theorists who really advocate the principle, "let justice be done, though the world perish," as opposed to, "let justice be done, lest the world perish," then they are not social harmonists.

But if the debate between natural law theorists and utilitarians is not over utility as defined in terms of social harmony, then what is it about? I suggest that the basic difference is one of methodology. This difference has been succinctly summarized by another modern defender of natural law, Paul Sigmund, as follows:

> For natural law theorists . . . utility is a result of the observance of natural law principles, whereas for utilitarians the principles of justice are an indication or codification of long-run utility. Both take account of the same moral experience and both often come to the same conclusions, but one emphasizes the *a priori* and universal character of our moral conclusions about man in society, and the other emphasizes the basis for these conclusions in human desires and in a posteriori effects which follow their adoption. (1971, p. 152)

Among classical defenders of natural rights, Herbert Spencer most clearly articulated this methodological distinction in order to distinguish his moral theory from the utilitarianism of Bentham and Mill. Spencer did not reject the label "utilitarianism," since he too saw happiness as the "ultimate end" (1989, p. 109) or "creative purpose" (1970, p. 61). What he objected to was making happiness "the rule of human conduct" (1970, p. 60) since the idea of the greatest happiness was "capricious" (1970, p. 27). Instead of trying to estimate the empirical consequences of an action or a policy, morality should be concerned with ascertaining "the *conditions* by conforming to which this greatest happiness may be attained" (1970, p. 61). Spencer did not object to being called a utilitarian, provided this label was qualified with the word "rational" to distinguish his doctrine from the "empirical utilitarianism" of Bentham and Mill (Spencer 1978, p. 494).[5]

Utilitarians have tended to either dismiss or misinterpret Spencer's point about method (in so far as they have paid any attention to Spencer at all). J. S. Mill is typical in this respect. Mill, in reply to Spencer's criticism of utilitarianism, asserted that there was no essential disagreement between Spencer and himself (and Bentham), dismissing Spencer's stress upon necessary consequences as not very important (Mill 1971, p. 56). Others have taken Spencer's methodological point more seriously but have interpreted it as being the distinction between direct (act) utilitarianism and indirect utilitarianism. According to John Gray,

> Indirect utilitarianism may be defined as that species of utilitarian theory in which a strong distinction is marked between the critical and practical levels of moral thought, and in which the

> principle of utility is evoked, solely or primarily, at the critical level. Utilitarian appraisals apply, not to conduct, but to the considerations which govern conduct—not only social rules, but the whole body of sentiments, attitudes and dispositions which lead us to one thing rather than another. (Gray 1989, p. 122)

Gray classifies both J. S. Mill and Spencer as indirect utilitarians.

Although it is true that Spencer believed that direct utilitarianism would lead to social "confusion" (1970, p. 16), his objection was much deeper than this. What Spencer mainly objected to in the utilitarian philosophy was its lack of principle, i.e., its stress on expediency. Now this may seem to be consistent with Gray's point about indirect utilitarianism: "Indirect utilitarianism is distinct from a sophisticated act-utilitarianism view, then, because it requires that certain practices and conventions be accorded enough weight for their claims to be able to *resist erosion* by utilitarian appraisals" (Gray 1989, p. 130, italics added). Spencer thought, however, that if anything, it was "incomparably less difficult" to "trace out the consequences a given act will entail" than to do so for "some public measure," but that in neither case could one make "trustworthy inferences" (1970, p. 73). Ironically, in one of the key texts that is supposed to provide evidence that Mill was an indirect, and therefore, a principled utilitarian Mill states, "All persons are deemed to have a *right* to equality of treatment, except when some recognized social expediency requires the reverse" (Mill 1971, p. 56). A little later he says, "Thus to save a life, it may not only be allowable, but a duty to steal or take by force the necessary food or medicine, or to kidnap and compel to officiate the only qualified medical practitioner" (Mill 1971, p. 57). (Perhaps this is a utilitarian's ideal of resisting "erosion," but to nonutilitarians it looks more like a mud slide.)

Of course Mill's failure to take a principled stance should not be used to convict all indirect utilitarians. I argue in the next section, however, that what I call the comparative-categorical contrast better captures the distinction Spencer was trying to make than the direct-indirect contrast. The direct-indirect distinction is a question of what one should compare. The direct utilitarian compares acts, choosing those whose consequences provide more utility. The indirect utilitarian compares rules, institutions, policies, sentiments, choosing those whose

consequences provide more utility. In both cases, a *comparative* approach is taken. The distinction between direct and indirect utilitarianism is based on a distinction between what is being compared. Spencer, on the other hand, rejects the comparative approach, taking instead a *categorical* approach to social harmony.

Comparative versus Categorical Harmonists

The comparative harmonist compares the alternatives, whether they be acts, rules, institutions, etc. and picks the best from among these alternatives. Comparative harmonists differ as to how to choose among alternatives. Some argue that happiness should be maximized, others that pain and suffering should be minimized. Others argue for maximizing liberty instead of happiness. Still others, like Hayek, argue for maximizing expectations or "chances of anyone selected at random" (Hayek 1976, pp. 129–30). Some, like Bentham, presuppose that happiness can be quantified and summed, whereas others resort to devices such as taking the stance of an impartial spectator or making decisions behind a veil of ignorance. But in all cases these doctrines assume a moral framework in which the moral theorist chooses the best from among the alternatives. Thus the comparative harmonist can be described as a maximizer, although it should be stressed that this means choosing the best among known alternatives, not the best among all possible alternatives.

The categorical harmonist, on the other hand, believes there are only two moral alternatives: social harmony or social chaos, the way of reason or the way of the beasts.[6] As Cicero put it, "There are two types of conflict: one proceeds by debate, the other by force. Since the former is the proper concern of man, but the latter of beasts, one should only resort to the latter if one may not employ the former" (Cicero 1991, p. 14). The categorical harmonist views those who are not rational, i.e., who seriously imperil social harmony, as enemies of the social order and thus subject to coercion. Whereas for the comparative harmonist the primary moral relationship is maximization, for the categorical harmonist it is reciprocity—social harmony is possible only among those who are committed to social harmony.

The categorical harmonist separates people into two general classes—those within the law and those outside. Those who by

their actions demonstrate that they either have contempt for the social order or are incapable of acting in accordance with social harmony are declared outlaws and treated accordingly. Thus Locke writes, “In transgressing the law of nature, the offender declares himself to live by another rule than that of *reason* and common equity” (1988, p. 272). Furthermore, by putting oneself outside the reach of reason, one forfeits one’s right to be treated as a reasonable being: “[O]ne may destroy a man who makes war upon him, or has discovered an enmity to his being, for the same reason that he may kill a wolf or a lion; because such men are not under the ties of the common law of reason, have no other rule, but that of force and violence” (1988, p. 279).[7]

The comparative harmonist, on the other hand, does not automatically declare those who disregard the conditions for social harmony to be outlaws. His moral world is not so black-and-white, and for this reason gives the illusion of being more humane and tolerant. Since the underlying principle of morality for the comparative harmonist is to maximize utility (or happiness or social welfare), the fact that an individual is behaving irrationally—acting in ways that are harmful to the social welfare—does not exclude this individual from being included in the utility calculus.

This basic difference in moral outlook is reflected in how the categorical and comparative harmonist justify punishment. For both the categorical and the comparative harmonist, there is a presumption against the use of physical force. This is what distinguishes social harmonists from social nihilists—those who believe that might is right. Categorical and comparative harmonists differ, however, concerning what overrides this presumption against the use of force. For the categorical harmonist, force is justified only against someone who shows a disregard for social harmony. (The nihilist, by declaring through his actions that he believes that might is right, can hardly complain when we use force against him.) For the comparative harmonist, on the other hand, force is justified only by showing that the consequences outweigh the intrinsically negative utility of the use of force. Thus, for a categorical harmonist punishment is viewed primarily as restitutional and retributive, whereas for a comparative harmonist punishment is viewed primarily as a deterrent and for reforming the criminal. The former is backward looking and proper to a nomocratic social theory where justice is measured against one’s relationship to law and the need to preserve social harmony. The latter is forward looking and

proper to a teleocratic social theory where justice is measured against a goal—the maximization of utility.

In a society based on a categorical moral framework, if someone disturbs the order of society, he is expected to restore the order—to make restitution. If he refuses to be bound by that order, he, in effect, declares himself an enemy of that order and becomes an outlaw and is no longer protected by the law (or more precisely, not protected by the law to the extent of, and in proportion to, his disregard for social harmony). In a society based on a comparative moral framework, on the other hand, punishment is justified only if it positively contributes to the overriding purpose of maximizing utility. The murderer's happiness counts just as much as everyone else's, including his potential victims. (This is a logical consequence of the principle that "equal amounts of happiness are equally desirable, whether felt by the same or different persons" [Mill 1971, p. 56].) The reason the murderer can be justifiably restrained and punished is that the resulting pain and suffering caused to the murderer (and, indirectly, to his mother, friends, etc.) is outweighed by the pain prevented to the rest of society. Punishment is justified only if the pain inflicted by punishment is outweighed by the expected social benefits. Likewise, punishing someone who has not done anything that threatens the peace of society is justified if the pain inflicted is outweighed by the social benefit. Admittedly, comparative harmonists can come up with plausible rationales why punishing the innocent would rarely maximize utility. The point is, however, that, unlike the categorical harmonist, the comparative harmonist has to do this in a roundabout and rather tenuous manner, making some rather strong assumptions about future consequences and the interpersonal comparison of utilities.

Both the similarities and the differences between the comparative and categorical harmonists are illustrated by how their defenders attempt to justify these two moral frameworks. Both begin with the individual's desire for happiness, but even here there is a subtle difference in emphasis. Whereas the comparative harmonist stresses the individual's desire to maximize his own happiness, the categorical harmonist tends to stress the universal law of self-preservation. Many categorical harmonists go so far as to argue that each individual has a duty to preserve himself. Locke, for example, attempted to ground this obligation by arguing that men are the "workmanship of one omnipotent, and infinitely wise maker" (1988, p. 271), and so

are ultimately the property of God. Others, such as Aristotelian rights theorists, have argued that the duty of self-preservation follows from man's inherent nature. But the categorical harmonist is not necessarily committed to justifying a duty to preserve oneself—i.e., he need not be committed to the strong assumption that a person who fails to defend himself is irrational and violates his nature or God's trust, and so should be condemned. What distinguishes the categorical harmonist is that he starts with the fact that it is reasonable to expect most people to try to preserve themselves (whether they have a duty to or not), and, in particular, to defend themselves from attack.

It is in the next step of the argument, the move from the individual's desire for happiness to the derivation of the basic principle of morality, that the comparative and categorical harmonists most radically differ. The comparative harmonist's argument is always some version of Mill's notorious inference from the fact that each individual desires his own happiness to the desirability of the general happiness (1971, p. 37). The categorical harmonist, on the other hand, asks: Given the nearly universal law that people will defend themselves when attacked, under what conditions is social harmony possible? The prototypical answer is given by Spencer. After noting that the desire for self-preservation applies to all creatures, and thus lacks an ethical quality, he takes the next step:

> Ethical character arises only with the distinction between what the individual *may* do in carrying on his life-sustaining activities, and what he *may not* do. This distinction obviously results from the presence of his fellows. Among those who are in close proximity, or even some distance apart, the doing of each are apt to interfere with the doings of others; and in the absence of proof that some may do what they will without limit, while others may not, mutual limitation is necessitated. The non-ethical form of the right to pursue ends, passes into the ethical form, when there is recognized the difference between acts which can be performed without transgressing the limits, and others which cannot be so performed. (Spencer 1981, p. 150)

Auberon Herbert makes a similar move. Beginning with the premise that "Underneath all life lies the great law of self-preservation," he notes that this is "a law which we may fulfill

either by using force as the animals do, or by universally accepting the reasonable relation which, forbidding force, guarantees equal freedom to all" (Herbert 1978, p. 101).

In brief, although the comparative harmonist shares with the categorical harmonist the goal of preserving society, this is seen only as a first step, albeit a necessary one, toward a more ambitious goal. The comparative harmonist judges the institutions of a society as inadequate, no matter how peaceful that society may appear on the surface, if these institutions can be modified so as to increase the total social welfare. Of course, one must weigh the costs of making any modification against future gains, and in practice a comparative harmonist may be very conservative in weighing these costs, as Bentham was, but in principle any institution is always subject to revision since someone may come up with a new alternative that is even better than any of the previous alternatives that have been considered in the past. In essence the comparative harmonist is always a social tinkerer.

Mises and Maximization

We can now address the question of whether Mises was a utilitarian in the maximizing, comparative sense or whether he was a categorical harmonist. In this section I argue that the evidence clearly indicates that he was not a maximizer, and in the next section I take up the question of whether he can more properly be classified as a categorical harmonist.

Now it may seem that when Mises says that laissez-faire liberalism promises "the most abundant possible satisfaction of all those desires that can be satisfied by the things of the outer world" (1927, p. 4), he does not leave much doubt that he is a moral utilitarian of the maximizing variety. But as was pointed out in the first section, when the issue is an agreed-upon policy goal, e.g., prosperity, then Mises can as a value-free economist recommend certain liberal policies as the best means for accomplishing this goal. In any case, one should not read too much into such statements. After all, natural rights liberals also believe that laissez faire will lead to a better world. More relevant are statements such as "the only yardstick that must be applied to [law and legality, the moral code and social institutions] is that of expediency with regard to human welfare" (1966, p. 147). Here Mises leaves no doubt that he is advocating a moral doctrine, not functionalism in general, and this moral

doctrine seems to imply the maximization of social welfare. But compare this passage to a very similar passage: “The ultimate yardstick of justice is conduciveness to the preservation of social cooperation. Conduct suited to preserve social cooperation is just, conduct detrimental to the preservation of society is unjust” (1957, p. 54). No categorical harmonist would have problems with this passage. Furthermore, in the former passage the very next sentence reads, “The utilitarian economist does not say: *Fiat justia, pereat mundus*. He says: *Fiat justia, ne pereat mundus*.” This is one of Mises’s favorite points: the utilitarian rejects “Let justice be done, though the world perish” for “Let justice be done, lest the world perish.” The contrast is between destroying and preserving the social order, not between maximizing and failing to maximize utility. Or consider the following passage, “The policy of liberalism is the policy of the common good, the policy of subjecting particular interests to the public welfare” (1922, p. 456). Taken out of context, this is the kind of statement that one would typically attribute to a social harmonist concerned with maximizing utility. Mises immediately adds, however, that this is “a process that demands from the individual not so much a renunciation of his own interests as a perception of the harmony of all individual interests” (1922, p. 456). What Mises clearly means is that in order for social harmony to be possible, individuals cannot completely ignore other individuals. This is fully consistent with the categorical harmonist’s argument for rights.[8]

It becomes even more difficult to attribute a maximizing interpretation to these passages in the light of other statements made by Mises that seem to explicitly reject a maximizing view of utilitarianism. These statements can be divided into two categories that parallel the two major objections that critics have raised against utilitarianism: (1) Utilitarianism demands that individuals be willing to sacrifice themselves to the greater good, but why should any individual agree to do this? (2) Utilitarianism presupposes that interpersonal comparisons of utility can be made; yet, this presupposition is highly dubious, if not incoherent.[9]

Mises employs both these objections against moral doctrines that he rejects. With regard to the first objection, Mises’s major criticism of “anti-utilitarian” doctrines, in addition to his rejection of their appeal to intuition, is that they require self-sacrifice. According to Mises, one of the contributions of “utilitarianism” is that the “dualism of motivation assumed by

most ethical theorists" was overthrown (1922, p. 357). "Utilitarian philosophy . . . reduced these apparent antagonisms [selfishness vs. altruism, economics vs. ethics, individual vs. society] to the opposition of short-run and long-run interests" (1957, p. 55). This may be true of Mises's brand of "utilitarianism," as it is true of those categorical doctrines of social harmony that stress reciprocity, but it is not true of any maximizing doctrine of social harmony.

It is instructive to contrast Mises with Henry Hazlitt on this point. Although Hazlitt, who describes himself as a utilitarian, believes that "for 99 percent of the people 99 percent of the time, the actions called for by enlightened self-interest and morality are identical" (1964, p. 124), "[t]here remains the rare case when the individual must be called upon to make a 'genuine' sacrifice" (p. 125). He cites Bentham's argument that we can be forced to help in Good Samaritan situations if the cost to us is not too great, and as an example he mentions forcing a doctor to "attend a patient suffering from a contagious disease" or to aid victims of an epidemic (p. 111). In these cases there is a conflict between long-term self-interest and social utility, and the maximizing-utilitarian sides with social utility. Mises, on the other hand, never admits to such a conflict, but repeatedly claims, as we have seen, that one of the major discoveries of "utilitarianism" is that there is no such conflict.[10]

With regard to the second objection to utilitarianism, given that Mises believes that only ordinal comparisons of utility can be made and that interpersonal comparisons of utility make no sense, it would be surprising if he were then to try to base his moral theory upon the maximization of utility. In fact, he is explicitly critical of any such doctrine:

> Some economists believe that it is the task of economics to establish how in the whole of society the greatest possible satisfaction of all people or of the greatest number could be attained. They do not realize that there is no method which would allow us to measure the state of satisfaction attained by various individuals. They misconstrue the character of judgments which are based on the comparison between various people's happiness. While expressing arbitrary value judgments, they believe themselves to be establishing facts. (Mises 1966, p. 242)

He then adds, “The reformers searching for the maximum of general satisfaction have told us merely what state of other people’s affairs would best suit them” (1966, p. 243). In another context he raises the question, “Is society, people asked, merely a sum of individuals or is it more than this and thereby an entity endowed with independent reality? The question is nonsensical. Society is neither the sum of individuals nor more nor less. Arithmetical concepts cannot be applied to the matter” (1957, pp. 251–52).[11]

It should be emphasized that a comparative harmonist cannot escape Mises’s objection against making judgments based on interpersonal comparisons of utility by resorting to such devices as assuming the role of an impartial spectator or making decisions behind a veil of ignorance. In fact, Mises explicitly criticizes the “old liberals” for assuming the stance of a “perfect king” whose only objective is to make his citizens happy (a precursor to the impartial spectator):

> [T]he economists compare this hypothetical system [embodying their own value judgments], which in their eyes embodies the moral law itself, with the market economy. The best they can say of the market economy is that it does not bring about a state of affairs different from that produced by the supremacy of the perfect autocrat. They approve of the market economy only because its operation, as they see it, ultimately attains the same results the perfect king would aim at. (Mises 1966, p. 691)

Mises contends that the fiction of the “perfect king” contributed to the modern notion of a godlike state.

Although one can find passages where Mises quotes Bentham’s “greatest happiness” principle without comment (e.g., 1966, p. 175), on other occasions he is rather dismissive. For instance, he characterizes it as expressing “not very aptly” the view that laissez-faire liberalism does not favor any special group (1927, p. 7). In another passage he interprets it as simply meaning that social man “must adjust his conduct to the requirements of social cooperation and look upon his fellow men’s success as an indispensable condition of his own” (1966, p. 833). He goes on say that “if we interpret welfare in this manner, the concept is void of any special significance. It can be invoked for the justification of every variety of social organization. . . . A principle that is broad enough to cover all doctrines, however,

conflicting with one another, is of no use at all" (1966, p. 834). [12]

In summary, Mises believed, like Spencer and Herbert, that it was legitimate to speak of the general welfare as the ultimate goal of morality, but also like Spencer and Herbert, he did not believe that one could give this principle any operational content. Its main value is that it distinguishes the social harmonist from the moral intuitionist, but there is always the danger that it will be used as a cover for special interests. As Mises stresses, "No decent man likes to be so rash as to raise objections against the realization of welfare"; however, "in the mouths of the welfare propagandists the notion of welfare has a definite meaning. They intentionally employ a term, the generally accepted connotation of which precludes any opposition" (1966, p. 834). Although Mises does not believe that an appeal to the general welfare can provide a definite guide to policy, he does not want to play into the hands of the welfare propagandists by being misinterpreted as being opposed to the general welfare.

Freedom is Indivisible

Having argued that Mises is not a comparative harmonist, but actually an astute critic of any maximizing moral framework, we must now consider whether he can more properly be described as a categorical harmonist. This brings us back to the central question with which we began: How could Mises be both a principled defender of laissez faire and a defender of the doctrine of social expediency? Our argument so far has been that the passages where Mises explicitly defends social expediency can be interpreted as defending the functionalist doctrine that morality is concerned with preserving society and attacking any appeal to mysteriously intuited principles. The question remains as to whether Mises's principled approach to laissez faire is a categorical approach.

As we have seen, for the categorical harmonist social harmony is not a relative, i.e., comparative matter, but a black-and-white, i.e., categorical matter. In Auberon Herbert's words, "It must be the battle of principles—the principle of liberty against the principle of force" (Herbert 1978, p. 51); "force and reason . . . are the two opposite poles" (p. 91). "Force—whether disguised or not under the forms of voting—has but one meaning. It means universal confusion and strife" (p. 335). Mises

in very similar words contrasts the “principle of violence” and the “principle of peace”: “Violence and law, war and peace, are the two poles of social life” (1922, p. 34). “History is a struggle between two principles, the peaceful principle, which advances the development of trade, and the militarist-imperialist principle, which interprets society not as a friendly division of labor, but as the forcible repression of some members by others” (1922, p. 268). Furthermore, the principle of violence cannot form the basis of a social coherent theory: “Try to realize completely the principle of violence, even only in thought, and its anti-social character is unmasked. It leads to chaos, to the war of all against all. No sophistry can evade that. All anti-liberal social theories must necessarily remain fragments or arrive at the most absurd conclusions” (1922, p. 37). “It is impossible to defend honestly the case for violence against the case for peaceful cooperation. Thus the advocates of violence are resorting to the trick of calling the methods of violence and threat of violence to which they resort ‘nonviolence’. . . . The fundamental antagonism between the realm of mutual peaceful agreement and that of compulsion and coercion cannot be eradicated by idle talk about two ‘sectors’ of the economy, the private and the public. There is no conciliation between constraint and spontaneity” (1968, p. 37).

For Mises the sole justification for force is social preservation:

> Society welcomes as members all who can see the benefit of peace and social collaboration in work. It is to the personal advantage of every individual that he should be treated as a citizen with equal rights. But the man who, ignoring the advantages of peaceful collaboration, prefers to fight and refuses to fit himself into the social order, must be fought like a dangerous animal. It is necessary to take up this attitude against the anti-social criminal and savage tribes. Liberalism can approve of war only as a defense. For the rest it sees in war the anti-social principle by which social cooperation is annihilated. (1922, p. 284)

Note that Mises, like Locke and other categorical harmonists, compares the anti-social individual to a dangerous animal. Likewise, for Mises, “[a]n unbridgeable gulf separates man from all those beings that lack the ability to grasp the meaning of

social cooperation" (1962, p. 105). Unfortunately, not every member of our species can cross this gulf, for "[t]here have always been people who were emotionally unfit to conceive the fundamental principle of cooperation under the system of the division of tasks" (1962, pp. 88–89).[13]

Mises's categorical approach is perhaps best represented by his claim that "freedom is indivisible" (1957, p. 376), and his rejection of a middle way between socialism and capitalism (1950b). "The liberal program is an indivisible and indissoluble whole, not an arbitrary assembled patchwork of diverse components. Its various parts condition one another. The idea that political freedom can be preserved in the absence of economic freedom, and vice versa, is an illusion" (1949a, p. 38). The same principle is appealed to when Mises argues against interventionism: "There is no middle way. Control is indivisible" (1949c, p. 55).[14]

Although he does not explicitly distinguish them, Mises has two arguments against a middle way.[15] The first argument is the "tar-baby" argument. Like Br'er Rabbit and the Tar Baby, each act of intervention creates more problems than it solves and leads to new interventions. This process escalates until one has created such a mess that it is almost impossible to extract oneself. This argument is especially applicable to economic policies such as price controls (Mises 1950b, pp. 22–24), but it can also be applied to "social" policies such as drug controls (Thornton 1991).

Mises's other argument against a middle way is the "slippery-slope" argument. He argues, for example, that government intervention *implies* socialism:

> All these champions of interventionism fail to realize that their program thus implies the establishment of full government supremacy in all economic matters. . . . Thus the doctrine and the practice of interventionism ultimately tend to abandon what originally distinguished them from outright socialism and to adopt entirely the principles of totalitarian all-round planning. (Mises 1966, pp. 723–24)

Mises is not saying that the slide to totalitarianism is inevitable. No one can predict the outcome. The slide down the slope may be slow or it may be fast, and it may be halted before descending all the way to the bottom. But assuming, as Mises does, that the

social world is ultimately ruled by ideas, then to sacrifice principle for the sake of social expediency is to kick over the intellectual prop which has prevented descent down the slide to totalitarianism. Mises makes this quite clear when arguing against the regulation of drugs:

> [O]nce the principle is admitted that it is the duty of government to protect the individual against his own foolishness, no serious objections can be advanced against further encroachments. . . . And why limit the government's benevolent providence to the protection of the individual's body only? Is not the harm a man can inflict on his mind and soul even more disastrous than any bodily evils? . . . The mischief done by bad ideologies, surely, is much more pernicious, both for the individual and for the whole of society, than that done by narcotic drugs. (Mises 1966, pp. 733–34)

For Mises the issue is one of principle: "We see that as soon as we surrender the principle that the state should not interfere in any questions touching on the individual's mode of life, we end by regulating and restricting the latter down to the smallest detail" (1927, p. 54).

The slippery-slope argument has played a central role in the categorical defense of rights.[16] Unlike comparative harmonists, categorical harmonists are not moved by the purported fact that an exception will have certain positive consequences. They see this as the first step down a slippery slope. Although comparative harmonists may recognize the value of a principled approach and the danger of allowing exceptions, they argue that the absolutist, categorical approach implied by the slippery-slope argument is too extreme. They may admit that intervention often has negative consequences that outweigh any positive benefits, but insist that this must be established case by case.

Such an attitude is exemplified by Yeager in a panel discussion on utilitarianism and natural rights: "I do not know for sure what position to take on things. I do not have an infallible pipeline to the truth" (Shah 1988, p. 9). When questioned as to what position he takes with regard to insider trading his response is: "I cannot take a firm position for or against insider trading. If I were to study the actual factual details of particular cases, I do not know whether I would come out condemning it or not" (p. 5). Rothbard, another panelist, is

quick to point out that Yeager's answer "shows the difference between viewing liberty and the free market as an organic tendency versus holding it as an absolute principle" (i.e., between what I have been calling a comparative and a categorical approach), and adds, "I am in favor of saying that there is nothing wrong with insider trading except for breach of contract" (p. 5).

It seems to me that there is little doubt that Mises, in spite of his professed utilitarianism, would have sided with Rothbard on this issue. It is because Mises takes such a principled stance with regard to government intervention that he is often perceived as "dogmatic." Critics ask how Mises can dismiss the middle way of intervention in such an *a priori* fashion? For the comparative harmonist one must weigh the evidence in each case—any *a priori* claim to the contrary is a veiled appeal to intuition or "an infallible pipeline to the truth."

Liberty of Conscience

The charge that the categorical harmonist must fall back on intuition has some historical justification. As we have seen, the categorical harmonist's stance is that force is only justified against those who are not reasonable—i.e., when rational interaction breaks down. The problem has always been deciding when this happens. Clearly, if one person uses force against another person who is amenable to reason, then the user of force is the one who has opted out of rational discourse. But this still leaves the problem of determining when the other party is or is not amenable to reason. The fact that my opponent does not agree with me may only mean that I have not given him a good reason to agree.

Up until the sixteenth century, categorical harmonists, as represented by natural law theorists, still relied heavily upon our supposed common religious and moral intuitions to determine what is reasonable. But in the context of the religious wars of the sixteenth century, social theorists started to face the fact that people's intuitions differed. Whereas during the Middle Ages the foundation for society had been considered to be "peace and unity," it was realized by a few social theorists in the sixteenth century, such as Sebastian Castellio, that coerced unity was the major cause of strife. This became the central insight of the seventeenth century defenders of toleration, e.g., Roger Williams, Henry Robinson, and the Levellers. The argument was

summarized by Locke at the end of the seventeenth century: “It is not the diversity of opinions, which cannot be avoided; but the refusal of toleration to those that are of different opinions, which might have been granted, that has produced all the bustles and wars, that have been in the Christian world, upon account of religion” (Locke 1991, p. 52).

The major theme of these social theorists was that any defense of toleration must be a principled defense. In discussing the question of a state sanctioned church, Locke asks which church are we to choose? He notes that it “will be answered, undoubtedly, that it is the orthodox church which has the right of authority over the erroneous or heretical.” To which he scornfully replies, “This is, in great and specious words, to say just nothing at all. For every church is orthodox to itself; to others, erroneous or heretical. Whatsoever any church believes, it believes to be true; and the contrary thereupon it pronounces to be error” (Locke 1991, p. 24). Nor can we allow the prince to choose, for “the religion of every prince is orthodox to himself. . . . If it be once permitted to introduce anything into religion, by the means of laws and penalties, there can be no bounds put to it; but it will, in the same manner, be lawful to alter everything, according to that rule of truth which the magistrate has framed unto himself” (Locke 1991, p. 37). In other words, there is no middle ground.

It should be stressed that Locke’s insight that “every one is orthodox to himself” (Locke 1991, p. 14), did not imply relativism. Locke believed that there was “but one truth, one way to heaven” (Locke 1991, p. 19). His point was that men disagreed about what this truth was, and that it was intellectually dishonest to assume away this disagreement. Diversity of opinion must be our starting point—it is implied by each man’s uniqueness, his fallibility, and the scarcity of time. No one has “the leisure, patience, and means, to collect together all the proofs concerning most of the opinions he has. . . . And yet we are forced to determine ourselves on the one side or the other. The conduct of our lives, and the management of our great concerns, will not bear delay” (Locke 1933, p. 382). Any moral theory that ignores scarcity (including that of time) and diversity (including that of opinions) fails to apply to the world as it is.

Thus if there is to be social harmony, there is no alternative but to tolerate each other. Quoting Locke again:

> Since therefore it is unavoidable to the greatest part

> of men, if not all, to have several opinions, without certain and indubitable proofs of their truth; and it carries too great an imputation of ignorance, lightness, or folly, for men to quit and renounce their former tenets presently upon the offer of an argument, which they cannot immediately answer, and show the insufficiency of: it would methinks become all men to maintain peace, and the common offices of humanity and friendship, in the diversity of opinions; since we cannot reasonably expect, that anyone should readily and obsequiously quit his own opinion, and embrace ours with a blind resignation to an authority, which the understanding of man acknowledges not. (1933, p. 382)

Later natural rights theorists realized that this argument for religious tolerance could be generalized to apply to all opinions and practices. Spencer, for example, argued that just as "[t]he advocate of religious freedom does not acknowledge the right of any council, or bishop, to choose for him what he shall believe or what he shall reject[,] [s]o the opponent of a poor law, does not acknowledge the right of any government, or commissioner, to choose for him who are worthy of his charity, and who are not" (Spencer 1981, p. 197). Herbert applied this same argument against public education (1978, p. 73) and compulsory taxes. In the case of the latter he argued,

> Because free countries have affirmed many years ago that a compulsory church rate is immoral and oppressive, for the sake of the burden laid upon individual consciences; and in affirming this truth they have unconsciously affirmed the wider truth, that *every tax or rate, forcibly taken from an unwilling person, is immoral and oppressive*. The human conscience knows no distinction between church rates and other compulsory rates and taxes. The sin lies in the disregarding of each other's convictions, and is not affected by the subject matter of the tax. (Herbert 1978, pp. 393–94)

Note that this general argument against coercion is basically the same argument that Locke used against religious intolerance —given that people disagree about the best course of action, on

the one hand, and the necessity of action (and the impossibility of waiting until there is agreement), on the other hand, the only peaceful solution is toleration, i.e., the mutual respect of each other's rights. This argument was also the basis for Spencer's case against utilitarianism: Given all the conflicting alternative proposals advocated under the banner of utility, if nothing were "to be done till all agreed upon them, we might stand still to the end of time." On the other hand, "[i]f each man carried out, independently of a state power, his own notions of what would best secure 'the greatest happiness of the greatest number,' society would quickly lapse into confusion" (1970, p. 16). To avoid this dilemma, the utilitarian has to fall back upon an "umpire," i.e., the government, for without the authority of government "such a morality must ever remain inoperative" (p. 16). Consequently, "Let but rulers think, or profess to think, that their measures will benefit the community, and your philosophy stands mute in the presence of the most egregious folly, or the blackest misconduct" (Spencer 1970, p. 4). Once we clear away all the euphemisms, the stark reality of the comparative approach (whether direct or indirect) stares us in the face: whoever can gain control of government is who decides. Once the decision as to what is and is not permitted is given to government, then as Locke asserted, "there can be no bounds put to it" (Locke 1991, p. 37).

Central to Spencer's argument is the insight that utilitarianism as a moral doctrine is "inoperative" and has to fall back upon the authority of the government. In other words, utilitarianism fails to satisfy the requirement that a moral principle be "praxeologically realizable" or "operational," to use Hans-Hermann Hoppe's terminology (1988a, p. 261).[17] This was also Spencer's objection against proposals for a "right to a maintenance":

> One party says that a bare subsistence is all that is implied. Another, that the applicant can demand all the comforts usually enjoyed by those in his station. Another, that he may as fairly claim the luxuries of life as those above him. And the extreme party will be content with nothing short of the socialist principle, of community of property. Who is to say which of these is the true expression of the right? The gradations are infinite, and how can it be decided where the claim begins and where it ends?

> Who can tell the rate-payer how much of his property can be justly demanded by his fellow creature? Who can tell the pauper when he asks for more pay, that he receives just as much as he is entitled to? or can explain to him why he has a right to what he already receives, but no right to anything more? And yet, if this were really a right, ought it not be capable of such a definition? (Spencer 1981, p. 205)

This inherent indeterminacy was what Herbert had in mind when he said that no one can draw a "force line," i.e., a line between the legitimate (apart from self-defense) and illegitimate uses of force (1978, p. 89). In response to the suggestion that we "allow society . . . to decide such matters as we are all pretty well agreed should be so decided," Herbert replies, "[t]here never can be agreement amongst men as to what these matters are" (p. 131). Ultimately, one ends up "sanctioning not only the right of some men to coerce others, but their right to decide how and when and for what purposes they shall coerce others. It is the power holders, freed from any general principle that controls and directs them, who have to decide as to the limits and application of their own power. For who else can do so?" (pp. 131–32). The argument is not that it is difficult to draw a line between the proper and the improper use of force. Anyone can draw a line. The problem is that no two people agree where this line should be drawn. There are only two stopping points—the doctrine that force can only be used in self-defense and the doctrine that might is right. The point that Herbert continually stresses is that when the issue is seen as where to draw this "force line," i.e., the attempt to find a middle way somewhere between these two points, the decision will always be made by those who have the most power, i.e., the question will ultimately be decided in favor of might.[18]

This brings us to the most misunderstood part of the categorical harmonist's argument—the appeal to *equal* rights. In Spencer's words, quoted earlier, the crucial move was that "in the absence of proof that some may do what they will without limit, while others may not, mutual limitation is necessitated" (Spencer 1981, p. 150). Note the similarity between Spencer's argument and Locke's with regard to toleration. After arguing that all churches are orthodox to themselves, Locke concludes, "So that the controversy between these churches about the truth

of their doctrines, and the purity of their worship, is on both sides equal" (Locke 1991, p. 24). The point is not that the doctrines are equally good, but that there is no evidence that anyone on earth has been given the prerogative to decide. As Herbert asks, "Who shall decide between us? There is no moral tribunal before which you can summon unlimited power" (1978, p. 312).

Mises's Categorical Defense of Liberty

In an earlier section we saw that Mises takes a principled stance to liberty, and how this is in line with the categorical moral tradition. In this section I argue that the basis for his principled stance is the same as that developed by Locke (and others before him) and generalized by Spencer and Herbert.

First, note that with regard to the critical issue of toleration, Mises takes a principled approach:

> Liberalism demands tolerance as a matter of principle, not from opportunism. It demands toleration even of obviously nonsensical teachings, absurd forms of heterodoxy, and childishly silly superstitions. It demands toleration for doctrines and opinions that it deems detrimental and ruinous to society and even for movements that it indefatigably combats. For what impels liberalism to demand and accord toleration is not consideration for the content of the doctrine to be tolerated, but the knowledge that only tolerance can create and preserve the condition of social peace without which humanity must relapse into the barbarism and penury of centuries long past. (Mises 1927, pp. 56–57)

It should be emphasized that Mises's defense of toleration is "utilitarian" only in the sense that every categorical harmonist's argument is utilitarian—it is concerned with the conditions that make social harmony possible. It is only because most comparative harmonists abandon their comparative approach when it comes to the question of toleration and take a principled approach that this is not noticed.

Second, Mises, when discussing toleration, draws on the same insight expressed by Locke's slogan "everyone is orthodox to himself" (Locke 1991, p. 14): "Mere opportunists excepted,

everyone is convinced of the rightness of his opinions. But, if such a conviction by itself were a justification for intolerance, then everyone would have a right to coerce and persecute everyone else of another way of thinking. . . . In such a case there must always be war and enmity between men" (1922, pp. 166–67). According to Mises, one of the major "blunders" of rationalism was its "neglect of the problem of erroneous thinking. Most of the rationalist philosophers failed to see that even honest men, sincerely devoted to the search for truth, could err. . . . A doctrine of which they disapproved could in their opinion have been prompted only by purposeful deceit" (1957, p. 270). Mises is here simply applying the insight of Locke concerning religious disagreements to rationalism.

Third, Mises, like Locke and Spencer, objects to the uniformitarian assumption that underlies most moral systems: "One of the motives that impel men to search for an absolute and immutable standard of value is the presumption that peaceful cooperation is possible only among people guided by the same judgments of value" (1957, p. 51). According to Mises, rationalists made a similar mistake, which is their other major blunder: "[T]hey assumed that all men are endowed with the same power of reasoning" (1957, p. 270). The fact of the matter is that there is diversity of opinion. Postulating immutable standards of value, even if true, will not make this diversity of opinion go away, nor will a faith in the rationality of man. The great insight of laissez-faire liberalism is that a free society "can function in spite of the fact that its members disagree in many judgments of value" (1957, p. 61; 1966, p. 693).

Finally, Mises, like Spencer and Herbert, sees the case for liberty as a generalization of the case for religious toleration. The socialist is just as blind as the religious fanatic to the insight that everyone is orthodox to himself:

> No socialist author ever gave a thought to the possibility that the abstract entity which he wants to vest with unlimited power . . . could act in a way which he himself disapproves. A socialist advocates socialism because he is fully convinced that the supreme dictator of the socialist commonwealth will be reasonable from his—the individual socialist's—point of view, that he will aim at those ends of which he—the individual socialist—fully approves, and that he will try to attain these ends by choosing

> means which he—the individual socialist—would also choose. Every socialist calls only that system a genuinely socialist system in which these conditions are completely fulfilled; all other brands claiming the name socialism are counterfeit systems entirely different from true socialism. (Mises 1966, pp. 692–93)

In another passage Mises is even more explicit in identifying socialism with intolerance and fanaticism:

> It is customary to call the point of view of the advocates of the welfare state the "social" point of view as distinguished from the "individualistic" and "selfish" point of view of the champions of the rule of law. In fact, however, the supporters of the welfare state are utterly anti-social and *intolerant zealots*. For their ideology tacitly implies that the government will execute what they themselves deem right and beneficial. They entirely disregard the possibility that there could arise disagreement with regard to the question of what is right and expedient and what is not. (Mises 1922, pp. 520–21; italics added)

The parallels between Mises's case for a principled, categorical approach to social harmony and that of Locke, Spencer and Herbert is somewhat obscured by Mises's unfortunate insistence that all values are arbitrary. It should be stressed, however, that Mises's argument in no way depends upon this premise, and in fact would be strengthened without it. The fundamental premise is not that ultimate ends, unlike means, are arbitrary and not amenable to rational argument. The starting point for social philosophy, rather, is that people disagree with regard to both means and ends. Even if ultimate ends were totally arbitrary, as Mises asserts, there would be no problem if everyone happened to agree on these ends. On the other hand, even if questions of means are in principle rationally determinable, insofar as we have not yet resolved which means are best and thus come to an agreement, we are faced with a moral problem of what to do in the meantime. In fact, in spite of Mises's stress on the arbitrariness of ends and the rationality of means, he admits that we often disagree about means (1966, p. 692; 1957, p. 174). He also points out that the distinction

between ends and means is not always straightforward—that what are ends for some people may be means for others (1957, p. 37).

One must be careful to not let Mises's assertions about the arbitrariness of values cause one to miss his main point. When Mises attacks absolute values, he almost always has in mind the belief that such values are handed down from Providence (1922, p. 35) and are independent of society (1966, p. 720). Such "heteronomous doctrines" (1966, p. 883) are antithetical to Mises's methodological individualism: "The rejection of methodological individualism implies the assumption that the behavior of men is directed by some mysterious forces that defy any analysis and description" (1962, p. 82). Furthermore, when Mises asserts that all value judgments are personal (1957, pp. 14, 59), usually what he is attacking is the belief that one has the right to impose these absolute values on others. This may not be apparent to the reader because of an ambiguity in Mises's writings between "personal" in the sense of "arbitrary" or a "matter of taste" (like ice cream), and "personal" in the sense of "not to be imposed on others." Although Mises is not careful to distinguish these two senses of "personal," clearly it is only the latter with which he is concerned. This is illustrated by the following passage: "If a man assigns a higher value to the concerns of the collective than to his other concerns, and acts accordingly, that is his affair. So long as the collectivist philosophers proceed in this way, no objection can be raised. But they argue differently. They elevate their personal judgments of value to the dignity of an absolute standard of value" (1957, p. 59). As Mises makes clear a few pages later, he is not insisting that the collectivist admit that his beliefs are arbitrary; what he is attacking is coercion: "There is, of course, but one way to make one's own judgments of value supreme. One must beat into submission all those dissenting" (1957, pp. 60–61).

Finally, although I agree with Rothbard that Mises's sweeping statement that all values are arbitrary is itself arbitrary (Rothbard 1982, p. 212; see also Tabarrok 1990), it seems to me that a coherent and plausible case can be made for Mises's nonjustificationist stance with regard to social harmony. The categorical harmonist's argument for rights presupposes a commitment to social harmony. Unlike many natural rights and natural law theorists, Mises believes that it is impossible to give any ultimate reason why one should be committed to peaceful cooperation. Instead, he treats this commitment as a hypothetical

imperative: “Praxeology and economics do not say that men should peacefully cooperate within the frame of societal bonds; they merely say that men must act this way if they want to make their actions more successful than otherwise” (1966, p. 883). When face to face with the social nihilist, i.e., someone who believes that might is right, it is not clear what the social harmonist could say that would be relevant. This is not to say that one’s commitment to social harmony is arbitrary. Mises *argues* that we can ignore those who have no regard for social harmony—e.g., such exceptional cases as Caligula—because of “their tendency to be self-destructive” (1933, p. 38). That is, we can give reasons for ignoring such cases. What we cannot do, however, is provide arguments that would convince the Caligulas of this world. The problem is that argument presupposes that conflict-free interaction is possible (Hoppe 1988a, p. 63; 1989, p. 132), whereas such interaction is precisely what the nihilist rejects. He may use words in ways that resemble, and are parasitic upon, argument, but he is not committed to resolving anything by argument. Argument for the nihilist is simply an expedient, an ammunition-savings measure. The most appropriate response to the nihilist (who has demonstrated by his actions that he really is a nihilist) is to reach for our clubs and hit him over the head. Given that he believes that might is right, he can hardly file a moral complaint against us for such actions.

The real intellectual challenge to the social harmonist comes not from the overt nihilist, but the righteous nihilist—the person who claims that he is committed to social harmony, but uses force against anyone who disagrees with him on the grounds that they are being irrational. It is the righteous nihilist (or “theocrat” [1966, p. 151; 1962, p. 107; 1949a, p. 43]) who is the target of Mises’s charge of arbitrariness, just as he was the target of Locke, Spencer, and Herbert. And it is in this light, I believe, that we should read Mises’s repeated attacks on absolute and immutable ethical principles. In fact, in this regard Mises often uses language that is reminiscent of that used by Herbert. For example, just as Mises sarcastically speaks of “those individuals to whom, by the mysterious decrees of some mysterious agency, the task of determining the collective will and directing the actions of the collective has been entrusted” (1962, p. 107), Herbert characterizes the socialist (and other users of force) as trying to persuade us “that there exists a mysterious dispensation given from some unknown quarter in his own special favor”

(Herbert 1978, p. 232).

Natural versus Conventional Property Rights

If Mises really is a categorical harmonist, then this should be reflected in his defense of private property. For the most part this is the case. Social cooperation under the division of labor, peace, and property are so closely tied together for Mises that he uses them interchangeably when talking about the nature of society and the goal of liberalism: "That Liberalism aims at the protection of property and that it rejects war are two expressions of one and the same principle" (1922, p. 59). "The basis and starting point of social cooperation lie in peacemaking, which consists in the mutual recognition of the 'state of property'" (1922, p. 467). "The program of liberalism, therefore, if condensed into a single word, would have to read: *property*, that is, private ownership of the means of production. . . . All the other demands of liberalism result from this fundamental demand" (1927, p. 19).

But what are we then to make of Mises's statement that private property "is a human device" and is "not sacred" (1966, p. 683)? Even more troublesome is his statement that if liberals "considered the abolition of the institution of private property to be in the general interest, they would advocate that it be abolished, no matter how prejudicial such a policy might be to the interests of property owners" (1927, p. 30).

The first statement is problematic only if we take it metaphorically to mean that property rights are arbitrary conventions. However, Mises is simply asserting, as the next sentence makes clear, that private property was not conferred on man by God or Nature, but is a human discovery which has a definite history. Although some natural rights theorists might disagree with this, Herbert Spencer would not be one of them. I believe the second statement (about his willingness to abolish property if it were in the general interest) should be taken with a rhetorical grain of salt. What Mises is stressing is that his defense of private property is not based on some special intuition, but upon the fact that private property is intrinsically linked with the very conditions for social harmony.

There is no question that Mises rejects the idea that private property is arbitrary. His major complaint against most moral philosophers was their conviction that "there was in the course of social events no such regularity and invariance of phenomena

as had been found in the operation of human reasoning and in the sequence of natural phenomena. They did not search for the laws of social cooperation because they thought that man could organize society as he pleased" (1966, p. 2). And he explicitly states that capitalism "is the only possible social system. One may undertake to modify one or another of its features as long as in doing so one does not affect the essence and foundation of the whole social order, viz., private property" (1927, p. 88).

The only question at issue is whether Mises's defense of property rights is a pragmatic defense of the status quo—i.e., a defense of currently existing titles regardless of how they were acquired. There are several passages that seem to suggest this: "The basis and starting point of social cooperation lie in peacemaking, which consists in the mutual recognition of the 'state of property.' Out of *de facto having*, maintained by force, arises the legal concept of ownership" (1922, p. 467). "Law is a *settlement*, and end to strife, and avoidance of strife" (1922, p. 34; italics added). "Possession is protected even though it is, as the jurists say, no title. Not only honest but dishonest possessors, even robbers and thieves, may claim protection for their possessions" (1922, p. 34).

If these passages are interpreted to mean that possession is the whole of the law, not nine-tenths, then one can argue that Mises does not provide a principled but only a pragmatic, *ad hoc* defense of property. As Rothbard points out, any ethic relying upon such an *ad hoc* defense of property rights, "pushed to its logical conclusion, must also defend every criminal in the property that he has managed to expropriate," and is thus "ethically nihilistic" (Rothbard 1982, p. 52). Such a doctrine would imply that if *A* steals *X* from *B*, then *A*, being in possession of *X*, has a right to *X*. But it would also imply that if *B* "steals" *X* back from *A*, then *B* has a right to *X*. In other words, whoever can retain possession of *X* has a right to it—i.e., might is right.

Given the incoherence of such a doctrine, however, we should first look for an alternative interpretation before attributing such a viewpoint to Mises. I believe that the key is to be found in a passage a few pages later where he notes that under "the domination of the principle of violence," which he contrasts with the principle of peace, there can be "no peace; at best there [can be] a truce" (1922, p. 58). Here it would seem he is explicitly rejecting the *ad hoc*, pragmatic doctrine of property as a mere "truce." The question, then, is what is the difference between a "settlement" (of the earlier passage) and a "truce"?

If we look at the context of Mises's statement that "even robbers and thieves, may claim protection for their possessions," we see that Mises is concerned to refute those who argue that since existing property titles have "sprung illegally from arbitrary acquisition and violent robbery" in the distant past, they are not legitimate (1922, p. 34). Again it is illuminating to compare Mises's argument with a similar passage from Spencer. When faced with a related argument—in this case the right of the poor to be maintained by the rich because of the past transgressions of the rich—Spencer does not deny that there were past transgressions, nor does he assert, in an *ad hoc* fashion, that such transgressions are irrelevant. Instead, he insists that the burden of proof is upon those who advocate the right to maintenance (Spencer 1981, p. 201). In particular, "when it can be shown that our poor are the children of the oppressed, and those who have to pay poor rates are the children of the oppressors, then the validity of the objection will be admitted; but that until this is shown to be the truth, or an approach to the truth, the objection may be disregarded" (1981, p. 192). The issue is one concerning on whom the burden of proof falls. Spencer's (and I believe, Mises's) position is not that existing property rights cannot be challenged, but that the burden of proof must fall on the challenger of *de facto* property rights. Only this position is praxeologically operational. Those who place the burden of proof on the *de facto* owner, and demand that he justify his right to use and dispose the object in question, implicitly assume that we can somehow take a disembodied stance, hovering above the physical world until all questions of rights have been satisfactorily decided.[19]

As we have seen, any coherent, operational ethical theory that is to apply to the world as it is, not as it is imagined to be in the dreams of the philosophers, must take into account two facts —scarcity, including scarcity of time, and diversity, including the diversity of opinions. In particular, it needs to recognize that people are never going to agree on how various resources ought to be used. Given that consensual joint control is impossible, the only peaceful alternative is divided control, i.e., private property rights. Furthermore, any coherent, operational ethical theory needs to recognize that people are never going to agree on how resources ought to be (optimally) divided up, any more than they are going to agree on how they ought to be used. Since man is a physical being who needs to use resources to survive and who at the very least needs a place to stand, the only peaceful

alternative is to make a presumption in favor of current property holdings. This does not mean that robbers have the right to their plunder. The concept of a "presumption" in favor of current property rights only makes sense if it is coupled with the right to have restored property that has been taken.

This theory of rights, combining a presumption in favor of the *de facto* owner with the principle of restitution, might be appropriately labeled a *concrete* theory of rights. I believe that it is equivalent, at least in most essentials, to the Lockean *abstract* theory of rights. In particular, the libertarian homesteading axiom can be directly derived. Any ethic, if it is to be praxeologically operational—if it is to recognize the facts of scarcity and diversity—must start with the existing property distribution. Furthermore, if it is to really qualify as an ethical principle, providing a basis for conflict-free interaction and not be equivalent, for all practical purposes, to might is right, it must also provide for a principle of restitution. The *de facto* owner's presumptive right can only be challenged by showing that a prior right is being restored. By chaining this argument backwards until we reach the first user, the homesteading principle is established—the first user of something cannot have his possession challenged since there is no prior right to be restored. We are far removed from the Lockean state of nature, and there is little doubt that the chain of transfers from there to our current set of property titles has been broken by a large number of illicit acts. This often gives the (false) impression that according to the Lockean view we do not have any grounds to stand on. By starting with a presumption in favor of the current, *de facto* owner, and shifting the burden of proof to the challenger, hypothetical but unprovable past acts of usurpation are clearly seen as irrelevant. Although the passage of time does not turn crimes into venerable institutions, the passage of time does make the burden of proof for the challenger more and more difficult.

Finally, in passing, it should be noted that the right of the first user can be said to be an eternal right. Although Mises rejects all theories of eternal rights, what he is mainly concerned with attacking is the view that rights were somehow self-evident to everyone from the beginning of time. Property rights, however, are eternal in a different sense—they are not conventional. At no point in time did, or can, someone establish property rights willy-nilly. I cannot take your property, for example, and then declare that we will from now on observe property rights. If I am serious about property rights, then I must

make restitution. Even if the concept of property rights has not previously occurred to either of us, once it does, in order for us to observe these rights, we must be willing to make restitution for (recognized) past wrongs. Otherwise, our professed belief in property rights cannot be taken seriously. It is in this sense that property rights can be said to be eternal—they extend backward indefinitely in time.

Conclusion

Mises's utilitarianism is the exception that proves (i.e., tests) the rule, in this case, Rothbard's rule that utilitarianism cannot provide a principled defense of laissez-faire liberalism. Of course, Mises, like almost all defenders of laissez faire, used utilitarian (i.e., nonmoral functionalist) arguments to defend the unhampered market. But he also used moral arguments. My main purpose throughout this paper has been to show that Mises's moral "utilitarianism," in spite of his repeated attacks on natural law and natural rights, owes more to the principled, categorical moral framework of Spencer and Herbert, than to the maximizing, comparative moral framework of Bentham and Mill. Mises equated natural law and natural rights with intuitionism, and for this reason rejected them, but he did not reject the categorical moral framework that underlies much of that tradition. On the contrary, it was the comparative moral framework of utilitarianism that he rejected. Furthermore, the essential premises for his moral defense of laissez faire is not the arbitrariness of all values, but the facts of scarcity (including scarcity of time) and diversity (including diversity of opinion concerning values *and means*)—two facts that play an essential role in his praxeological methodology. Any coherent moral theory concerning the conditions for social harmony, as well as any coherent theory of economics, must take these two facts into account. It is this insight, articulated by Locke, that Mises turns into a powerful moral argument against socialism and in favor of laissez faire.[20]

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[1] I am not claiming that these three senses of utilitarianism are explicit in Mises’s writings, but only that they help resolve the apparent conflict between Mises’s principled stance toward liberty and his professed belief in social expediency. My approach to Mises’s utilitarianism is similar to that taken by Hans-Hermann Hoppe with regard to Rothbard’s natural rights: “my approach . . . seems to be more in line with what Rothbard actually does when it comes to justifying the specific norms of libertarianism than the rather vague methodological prescriptions of the natural rights theorists” (Hoppe 1988, p. 61). I hope to show that in spite of his professed utilitarianism, Mises takes a principled approach to ethics that has much in common with the approach taken by Rothbard and Hoppe.

[2] Mises believes, however, that a “final judgment” can be made, because economic calculation is not possible under socialism, and so socialism is not a realizable system.

[3] This paragraph and many similar observations throughout this essay concerning Mises’s social theory owe much to Joseph Salerno’s essay, “Ludwig von Mises as Social Rationalist” (1990).

[4] I am borrowing the label “harmonist” from Mises, although giving it a somewhat wider connotation (1957, p. 40).

[5] Locke, who wrote before utilitarianism had been developed as a distinct theory, made a similar methodological distinction: “Utility is not the basis of the law or the ground of obligation, but the consequence of obedience to it” (Sigmund 1971, p. 93).

[6] Or to use Murray Rothbard’s apt phrase, the categorical harmonist adopts a “polar analysis” (1970, p. 264).

[7] In another passage Locke states, “a criminal, who having renounced reason, the common rule and measure, God hath given to mankind, hath by the unjust violence and slaughter he hath committed upon one, declared war against all mankind, and therefore may be destroyed as a *lion* or a *tiger*, one of those wild savage beasts, with whom men can have no society nor security: And upon this is grounded the great law of nature, *who so sheddeth mans blood, by man shall his blood be shed*” (1988, p. 274). Auberon Herbert takes a similar stance: “My justification [in knocking a thief down] was, that he had established between himself and the rest of society the force relation, and therefore I had to deal with him as I should have dealt with a wild beast that had attacked me” (Herbert 1978, p. 101). “The men who do so restrain their neighbor, . . . are men who disallow this universal law [against aggression], and therefore lose the rights which they themselves possess under it” (p. 141). This same reciprocity based moral framework is presupposed by Rothbard’s discussion (in the context of animal rights) of what he calls the “Martian problem”: “If we should ever discover and make contact with beings from other planets, could *they* be said to have the rights of human beings? It would depend on their nature. If our hypothetical ‘Martians’ were like human beings—conscious, rational, able to communicate with us and participate in the division of labor, then presumably they too would possess the rights now confined to ‘earth-bound’ humans. But suppose, on the other hand, that the Martians also had the characteristics, the nature, of the legendary vampire, and could only exist by feeding on human blood. In that case, regardless of their intelligence, the Martians would be our deadly enemy and we would not consider that they were entitled to the rights of humanity” (Rothbard 1982, p. 156).

[8] Compare Herbert: “Man is predestined to find his complete happiness, as Mr. Spencer teaches, only when the happiness of others becomes to him an integral part of his own; but this development of his nature cannot take place unless he is living under those true conditions which belong to a free life” (Herbert 1978, pp. 116–17).

[9] See, for example, Narveson (1988, pp. 150–153). In addition to these two fundamental objections, critics have also argued that utilitarianism has certain counter-intuitive implications—e.g., the punishment of the innocent under certain circumstances.

[10] Even Mises’s defense of conscription (one of his few

lapses from a pure libertarian position) is not cast in terms of maximizing utility, but as a condition that may sometimes be necessary in order to preserve society from "ruthless oppressors" (1966, p. 282). Underlying his argument is the assumption that defense is a public good. This assumption met with little resistance, even among categorical harmonists (Spencer, for example, makes a similar case for conscription [1978, p. 87]), until the public goods argument itself was challenged by Rothbard (1962, pp. 883–90; 1970, ch. 1).

[11] Contrast Mill's statement that "the truths of arithmetic are applicable to the valuation of happiness, as of all other measurable quantities" (Mill 1971, p. 56).

[12] Mises made a similar statement in his final book: "That every human action has to be judged and is judged by its fruits or results is an old truism. It is a principle with regard to which the Gospels agree with the often badly misunderstood teachings of utilitarian philosophy. But the crux is that people widely differ from one another in their appraisal of the results. What some consider as good or best is often passionately rejected by others as entirely bad. The Utopians did not bother to tell us what arrangement of affairs of state would best satisfy their fellow citizens. They merely expounded what conditions of the rest of mankind would be most satisfactory to themselves" (1962, pp. 96–97).

[13] Mises has very little to say about the justification of punishment. On a number of occasions he does say that force must be used to protect society, e.g., "In order to preserve peaceful cooperation, one must be ready to resort to violent suppression of those disturbing the peace" (1950a, p. 303). He does note that, "To punish criminal offenses committed in a state of emotional excitement or intoxication more mildly than other offenses is tantamount to encouraging such excesses" (1966, p. 16). This might be taken to mean that he holds a deterrence theory of punishment. This does not mean, however, that his position is one of maximization. Categorical harmonists recognize that punishment has a deterrence effect, but they typically believe that this must be subject to proportionality—i.e., one must not punish a person more severely than his anti-social act would merit. According to Locke, one "may bring such evil on any one, who hath transgressed that Law, as may make him repent the doing of it, and thereby deter him, and by his Example others, from doing the like mischief," but one may do so "only to retribute to him . . . what is proportionate to his

Transgression" (Locke 1988, p. 272). At least twice Mises mentions the possibility of considering criminals to be mentally ill, but he does so for the sake of argument, not because he agrees with this premise: "We may agree that he who acts antisocially should be considered mentally sick and in need of care. But as long as not all are cured . . . . some provision must be taken lest they jeopardize society" (1966, p. 149; 1944, p. 48).

[14] Herbert likewise argued that freedom is indivisible: "The nature of man is indivisible; you cannot cut him across, and give one share of him to the state and leave the other for himself" (1978, p. 140). The view that there is no middle way is common to the natural rights tradition. As we have seen, Locke contrasted the "common law of reason" with the "rule . . . of force and violence" (1988, p. 279). He was just as explicit in his *Letter on Toleration*: "There are two sorts of contests amongst men; the one managed by law, the other by force: and they are of that nature, that where the one ends, the other always begins" (Locke 1991, p. 45). Lysander Spooner also makes use of a similar "no middle ground argument": "There is . . . no middle ground between absolute communism, on the one hand, which holds that a man has a right to lay his hands on any thing, which has no other man's hands upon it, no matter who may have been the producer; and the principle of individual property, on the other hand, which says that each man has an absolute dominion, as against all other men, over the products and acquisitions of his own labor, whether he retains them in his actual possession, or not" (Spooner 1855, p. 88).

[15] Note, however, that when discussing "why all men should receive equal treatment under the law" (1927, p. 28), Mises does explicitly distinguish two arguments that parallel the distinction I make above. The first is an economic argument concerning the conditions for prosperity, the second, a moral or social harmonist argument concerning the conditions for social peace.

[16] Herbert, for example, argues in response to those who do not see a sharp dichotomy between the principle of force and the principle of peace and who want to "judge each case on its merits" that "apart from any fixed principle, the merits will be always determined by our varying personal inclinations. It is all slope, ever falling away into slope, with no firm level standing place to be found anywhere" (Herbert 1978, p. 281).

[17] As Hoppe explains, "it must be possible for us, who

invariably must act and employ resources, to actually implement such a criterion and consistently act upon it." Given some criterion such as the greatest happiness or the stance of an impartial spectator, Hoppe asks, "what if [we] . . . do not choose the same but incompatible societies—the criterion of maximum average utility has already done its work—but there is still disagreement" (Hoppe 1988a, p. 262). Elsewhere Hoppe notes that "in advocating a consequentialist position, utilitarianism is strictly speaking no ethic at all when it fails to answer the all-decisive question 'what am I justified in doing now?'" (1988b, p. 54).

[18] This is a common theme running throughout Herbert's writings: "Admit that any one . . . may restrain by force the exercise of the faculties of others, and in what sea of moral confusion you are at once plunged. Who is to decide which is the better man or the more civilized race, or how much freedom is to be allowed or disallowed. To settle this question men must sit as judges in their own case; and this means that the strongest will declare themselves the most civilized, and will assign such portions of freedom as they choose to the rest of the nation or the rest of the world as the case may be. Are you prepared for this?" (1978, p. 98). "Once admit that force is right in itself, and then you cannot pick out any special sect or party, confer special privileges upon them, and declare that they alone, and nobody else are entitled to use force. That would be a mere arbitrary and fanciful selection, as arbitrary and fanciful as picking out certain opinions, and declaring that these are orthodox, and that all other opinions are heterodox. If force is good in the hands of some men, it is good in the hands of other men; if it is a good instrument to serve some causes, it is good to serve other causes" (p. 231). "[U]ntil they have found some law by which they can distinguish the right from the wrong use of power, by which they can justly satisfy not only their own minds but the minds of others, they are simply leaving in suspension the greatest matter that affects human beings" (pp. 132–33).

[19] Mises's assertion that the notion of justice "makes sense only when approving or disapproving concrete conduct from the point of view of the valid laws of the country" (1966, p. 721) might seem to imply that all rights, including property rights, are those defined by the legal system. Such a legal positivist interpretation, however, conflicts with what Mises says elsewhere. For example, when discussing the natural law, he is critical of its "arbitrary prepossessions" but praises it for

rejecting “legal positivism” and substituting the “idea that every valid law of a country was open to critical examination by reason” (1957, p. 48). I believe Mises’s statements to the effect that there is “neither right nor wrong outside the social nexus” should be interpreted as attacks upon intuitionist critiques that are not grounded in the realities of society rather than appeals to the legal status quo.

[20] Mises’s arguments for laissez faire and against socialism can be usefully divided into three classes: (1) nonmoral functionalist arguments concerning the best policies for promoting prosperity; (2) the economic calculation argument that socialism leads to social chaos; and (3) moral arguments concerning the conditions for social harmony. There is an interesting parallel with St. Thomas Aquinas’s three arguments for preferring private property to communal property: (1) communal property undermines the incentive to work; (2) communal property leads to social confusion; and (3) communal property undermines social peace (Aquinas 1959, p. 169 [*Summa Theologies* II-II 66 2]). In his book on the economics of the late-scholastics Alejandro A. Chafuen notes that Mises’s defense of property is similar to that of the late-scholastics (1986, p. 155).

The Impetus for Recognizing Private Property and Adopting Ethical Behavior in a Market Economy: Natural Law, Government Law, or Evolving Self-Interest

Bruce L. Benson

I.
Introduction

Mises (1949, p. 725) convincingly argues that, *given* the existence of the long-run objectives instilled by private property rights, cooperation in the form of division of labor and trade emerge naturally; and therefore, under these circumstances, "there is no need to enforce cooperation by special orders or prohibitions." His explanation is clear: when private property rights are defined and enforced, the

> reason why the market economy can operate without government orders telling everybody precisely what he should do and how he should do it is that it does not ask anybody to deviate from those lines of conduct which best serve his own interests. What integrates the individual's actions into the whole of the social system of production is the pursuit of his own purposes. In indulging in his "acquisitiveness" each actor contributes his share to the best possible arrangement of production activities. (Mises 1949, pp. 725–26)

But where do the property rights come from? Some suggest that there is a "natural law," perhaps given by some superhuman power (or by the conscience of wise and decent men) which also has entrusted authority into the hands of enforcement

institutions. Another answer, legal positivism in the tradition of Hobbes and Austin, typically identifies law with observed legal institutions: generally the state. This view assumes that without a monopoly in police and/or military power by a coercive centralized authority, anarchy characterized by continual conflict will exist, and that whatever the state defines as law is "law." Thus, the state is the necessary prerequisite to the establishment of the fundamental ethical behavior that supports a free market: Presumably individuals will not respect private property, fulfill obligations, or recognize contracts unless a coercive authority forces them to do so. In fact, legal positivism is closely related to the natural law. As Mises (1985a, p. 11) suggests, "A new type of superstition has got hold of people's minds, the worship of the state."

Mises correctly rejects the natural law doctrine. For example, he (1949, p. 720; also see p. 146; 1985b, pp. 44–49, 82) explains that rules and laws are made by people for specific purposes: there is "no such thing as a perennial standard of what is just and what is unjust. . . . All moral rules and human laws are means for the realization of definite ends. There is no method available for the appreciation of their goodness or badness other than to scrutinize their usefulness for the attainment of the ends chosen and aimed at." In a market economy, the ends are the gains from trade that arise given recognition of private property, and the resulting long-run increases in wealth for those involved. And as Mises says:

> there is nothing inhuman or mystical with regard to the market. The market process is entirely a result of human actions. Every market phenomenon can be traced back to definite choices of the members of the market society. The market process is the adjustment of the market society to the requirements of mutual cooperation. (1949, p. 258)

Mises also rejects parts of the legal positivist view. In fact, he (1985b, pp. 47–48) suggests that "[t]he chief accomplishment of the natural law idea was its rejection of the doctrine (sometimes called legal positivism) according to which the ultimate source of statute law is to be seen in the superior military power of the legislator who is in a position to beat into submission all those defying his ordinance. . . . it is an illusion to deny that the best system of laws cannot be put into place unless supported and enforced by military supremacy." There clearly

are, in Mises's mind, appropriate and inappropriate laws (e.g., see 1985a, pp. 46–50). For instance, he emphasizes (1985a, p. 58) that "[g]overnments have always looked askance at private property. . . . It is the nature of the man handling the apparatus of compulsion and coercion . . . to strive at subduing all spheres of human life to its immediate influence." And he maintains that one function of the "law" is to constrain the discretionary application of coercive powers by officeholders and bureaucrats (1983, p. 76). Yet, Mises does not take the final step and reject all of tenets of legal positivism. He accepts the view that a state's authority is essential for controlling individual's tendencies toward unethical behavior:

> The state is essentially an apparatus of compulsion and coercion. The characteristic feature of its activities is to compel people to behave otherwise than they would like to behave. . . . With human nature as it is, the state is a necessary and indispensable institution. The state is, if properly administered, the foundation of society, of human cooperation and civilization. (Mises 1985a, pp. 46–47)[1]

Without the state, Mises (1985a, p. 48) expects that anarchy à la Hobbes will prevail. In fact, despite recognizing that the state is always a threat to property rights, Mises (1949, p. 725) maintains that it is also the source of those rights, or at least of their protection: "Beyond the sphere of private property and the market lies the sphere of compulsion and coercion; here are the dams which organized society has built for the protection of private property and the market against violence, malice, and fraud. . . . here are rules discriminating between what is legal and what is illegal, what is permitted and what is prohibited."

The Hobbesian jungle is not the only alternative to the state, however. Indeed, there is another possible source of property rights and behavioral rules, which a direct extension of Mises's analysis of self-interest incentives for cooperation under private property can explain. Thus, the purpose of the following presentation is to extend, to a more fundamental level, the theoretical explanation offered by Mises as to "why the market economy can operate without government orders telling everybody precisely what he should do and how he should do it," by demonstrating that the same reasoning also applies to incentives for cooperation in establishing, recognizing, and

enforcing private property rights.[2] Given long-run goals rather than short-run concerns, individuals have incentives to enter into cooperative arrangements in order to reduce their costs of defending possession claims and to enhance the property's value by increasing the potential for mutually beneficial interaction, including division of labor and market exchanges. As Rothbard (1970, p. 3) contends, "no State or similar agency contrary to the market is needed to define or allocate property rights. This can and will be done by the use of reason and through market processes themselves; any other allocation or definition would be completely arbitrary and contrary to the principles of the free society." Section II of the following presentation explains why and how self-interested individuals within a particular group will voluntarily adopt the behavioral rules and develop the basic institutional framework that underlies and facilitates a free market, as well as other mutually beneficial interactions. The fact is that even though the concept of a perennial "natural law" is erroneous, "customary law" can evolve naturally or spontaneously, just as Adam Smith described the evolution of markets: "as if guided by an invisible hand." Section III examines the various competitive and cooperative relationships that can arise between groups which facilitate the spread of customary law. It is not contended that the voluntary evolution of the ethical behavioral rules and institutions of customary law *must* arise, however. Rather, the point is that they *can* and *do* arise without a coercive centralized authority. Thus, the concluding section considers the issue of why a centralized coercive authority appears to be the source of law in most modern societies. The fact is that the voluntary rules and institutions are not universally observable because conflicting incentives also exist which are more effectively served by authoritarian institutions and laws. Indeed, the evolution of law in most societies is actually shaped by the ebbs and flows of the natural conflict between customary and authoritarian institutions and norms within and between groups, a conflict that Mises clearly recognizes (1985a, pp. 58, 104, 240). The examination of this conflict emphasizes that the expanding scope of centralized authority does not reflect its superiority in preserving and protecting private property or in facilitating voluntary interactions such as those which characterize a market economy.

II.
The Evolution of Ethics and Law Within a Cohesive

As Mises explains, cooperation in a market process generates long-run benefits for everyone (1985b, p. 236), but if some individuals focus on short-run considerations, long-run benefits may not be achieved. The question is, under what circumstances are incentives tied to short-run considerations? In the jargon of game theorists: if every potential market exchange between people involves a discrete, simultaneous one-shot game, then mutually beneficial interaction is unlikely in the absence of some threatened sanction by a coercive power. Short-run concerns dominate potential long-run benefits. While this argument applies to cooperative exchange, it also applies to cooperation in the form of collective recognition and compliance with a set of ethical values. An individual, person A, who bears personal costs from adopting some type of conduct that constrains him in some way (e.g., respecting someone's private property rights and therefore not using that property without permission, perhaps involving a payment for the use) will get nothing in return if the other individual, *B*, does not adopt a similar set of values and cooperative behavior (e.g., if *B* does not recognize *A*'s property rights). Uncertainty about the behavior of *B* in the resulting one-shot prisoner's dilemma-type situation induces non-cooperative behavior by *A*, and vice-versa. This prisoner's dilemma scenario does not characterize many kinds of social interactions, however (Tullock 1985). Individual's choices regarding interaction with others are part of a continuous process, with each unique decision representing only one link in a long-time chain of interaction. For example, most businessmen expect to be active for a long time and to be involved in interactions with other businessmen and consumers over and over. Their focus is long run, not short run.

A more appropriate characterization of many interactions might be as multi-contact or repeated games. Indeed, in a repeated game setting with a finite uncertain horizon, cooperation becomes possible (à la Luce and Raiffa [1957] and Axelrod [1984]), although it clearly is not certain.[3] This includes the potential for ethical behavior. For instance, Fuller (1964, pp. 23–24) suggests three conditions which make mutually recognized duties or obligations clear and acceptable to those affected. First, the relationship of reciprocity from which the behavioral obligations arise "must result from a voluntary agreement between the parties immediately affected; they

themselves 'create' the duty." Second, the reciprocal acceptance of the duties must be equitable in the sense that both parties must expect to gain: the exchange cannot be one-sided so that one person gains and another loses, once again emphasizing the paramount role of self-interest motives. Third, the parties must expect to interact on a fairly regular basis because the relationship "must in theory and in practice be reversible." That is, given reciprocal gains in a repeated game situation, recognition of common behavioral norms becomes likely as each individual recognizes that the long-term benefits of remaining on good terms with the other party by doing so are likely to be greater than the immediate benefits of not cooperating (e.g., taking another person's possessions, committing fraud).

Even a repeated game involves weaker incentives to recognize a common set of behavioral norms than those which exist in many situations (Tullock 1985). In particular, each individual chooses to enter into several different games with different players. Thus, refusal to behave ethically within one game can affect the person's reputation and limit his ability to enter into other games to the extent that reputation travels from one game to another. When players value ongoing relationships with other reliable players more than the potential benefits associated with refusing to follow accepted behavior in any single game, then the potential for cooperation in the form of recognition of standard behavioral norms is even greater than in simple repeated games (Schmidtz 1991, p. 102). Tullock (1985, p. 1073) refers to this combination of multiple games over time with reputation effects using Adam Smith's phrase: "the discipline of repeated dealings." The incentives to cooperate that arise from repeated games are effectively reinforced, because anyone who chooses a non-cooperative strategy in one game will have difficulty finding a partner for any future game (Tullock 1985, pp. 1075–76). Therefore, in order to maintain a reputation for fair dealings or "high moral standards," each player's dominant strategy is to behave ethically throughout each game, whether repeated or one shot. And as a consequence, in Mises's words:

> social cooperation becomes for almost every man the great means for attainment of all ends. An eminently human common interest, the preservation and intensification of social bonds, is substituted for pitiless biological competition . . .

> Man becomes a social being. . . . Other people become his fellows. . . . For man, until the optimum size of population is reached, it means rather an improvement than a deterioration in his quest for material well-being. (1985b, p. 56)

Property rights under "customary law"

Recognition of private property rights and the rights of individuals (rules against violence, malice and fraud) are likely to constitute the most important of the voluntary and mutually recognized duties or obligations when interactions arise out of reciprocity and reputation (Benson 1989b; 1990).[4] After all, individuals must expect to gain as much or more than the costs they bear from voluntarily constraining their behavior in light of common behavioral norms. Indeed, voluntary adoption of commonly accepted behavior (and participation in the institutions that develop to support those values, as noted below) is likely to arise only when substantial benefits from doing so can be internalized by each individual. Recognition by others of a person's possessions as that person's private property is a very attractive benefit.[5] Therefore, individuals have incentives to reciprocate and recognize other individuals' property rights in order to reduce their own costs of defending possession claims, and to enhance the property's value by increasing the potential for mutually beneficial interaction, including market exchanges. From an individual's perspective, such behavioral norms involve both rights and obligations (recognition of other individual's rights), of course. Indeed, "all such relationships entail domination and submission" (Leach, 1977, p. 19). In some cases an individual's rights dominate, but in other cases the individual must submit to the interests of someone else: "'the law', by which I here mean the customary rules of society, . . . says who must submit to whom and in what context" (Leach 1977, p. 19). The use of "customary rules" is appropriate here. Recognition of property rights becomes a customary obligation. Indeed, even today, as Hayek (1973, pp. 96–97) explains, many issues of law are not "whether the parties have abused anybody's will, but whether their actions have conformed to expectations which other parties had reasonably formed because they corresponded to the practices on which the everyday conduct of the members of the group was based. The significance of customs here is that they give rise to expectations that guide people's actions, and

what will be regarded as binding will therefore be those practices that everybody counts on being observed and which thereby condition the success of most activities."

Property rights are more a matter of economic value than of legal definition. That is why Mises's (1949, pp. 725–26) arguments about the reasons for cooperation in a market readily extend to explain cooperation in rights formation. The fact that the potential for long-run gains implies that self-interest incentives to cooperate in market activities arise given recognition of private property rights also implies that incentives can exist to cooperate in the establishment of such rights, given that individuals have long-run objectives.

Similar incentives motivate the development of legal institutions; and when a system of behavioral obligations is backed by institutions for resolution of disputes and enforcement of obligations, the result is a legal system (Fuller 1964; Benson 1990). If a legal system develops from the bottom up through voluntary arrangements, as suggested here, it can be referred to as "customary" law (Fuller 1964). A customary legal system is based on individual decisions reflecting individual self-interest, because each individual finds it beneficial to obey certain rules (even though each probably recognizes that these rules may occasionally work to his disadvantage) and to contribute to the costs of enforcement, in anticipation that the long term benefits will exceed the costs.

Institutions for Adjudication and Enforcement of Customary Behavioral Rules

When a group of frequently interacting people is sufficiently small and stable so that reputations are well-known and trust relationships are strong, there is little need for a formal institutional arrangement, perhaps beyond the institution of the immediate family. The self-interest impetus for new institution formation can arise when the potential for beneficial interaction expands to a larger and/or less stable group than one in which everyone knows everyone else's reputations well enough to establish individual trust relationships. As the group expands or becomes more dynamic (e.g., perhaps because of increasing potential for specialization and division of labor), individuals will want to interact with increasing frequency and/or with growing numbers of other individuals with whom reciprocities and reputation effects may not be firmly established. Such

interaction, while desirable, also increases the potential for dealings with someone who in fact does not behave as expected, which in turn creates the potential for a disagreement as a result of theft, deliberate fraud, malicious slander, or some other form of taking of property rights. Therefore, for such expansion to occur, each party's commitments to accept commonly expected norms of behavior must be credible.

One way to unilaterally try to insure credible commitments by another party to fairly resolve disputes is "self-help" (Nader and Todd 1978, p. 10): that is, accumulation of human or mechanical assets for inflicting violence in order to threaten retaliation if the other party does not behave as expected. This should reduce the probability of an intentional offense against the individual, and increase the probability that the individual can make a property rights claim stand. However, this can also be quite costly. Furthermore, when the threat of violence is not sufficient and a dispute arises, the relevant institution for dispute resolution is the "feud" or vengeance (Leach 1977, p. 24).

Unilaterally, an individual in a dispute has only two options besides violence. He can simply decide that the cost of pursuing the claim is too high, and drop it, while continuing to interact with the perceived offender, or he can choose not to pursue the claim, *and* to discontinue interactions with the other individual. The relative costs and benefits of these options will be weighed if an individual unilaterally makes a choice; and if the property rights are expected to be more valuable than continuing the relationship, violence will be chosen (Nader and Todd 1978, pp. 10 and 18). Both individuals face similar alternatives, however; so in combination, they actually have a fourth option. They can negotiate a peaceful solution (Nader and Todd 1978, p. 10). In doing so, they attempt to delineate previously undefined property rights or reestablish the rights that have been intentionally taken. Personal strength still plays a role in negotiation, of course, in that it can establish a bargaining advantage. Furthermore, direct negotiation may not be successful, so violence or loses due to acquiescence are still threatened.

The high cost of either unilateral actions in maintaining personal strength or of bearing losses due to acquiescing is an important source of the incentives that individuals with mutual interests in long-term interaction have to form groups or associations for mutual support, even when feuding is still intended to be the ultimate means of dispute resolution.

Transactions costs fall through organization and institutions for mutual support. That is, the benefits of negotiation (violence avoidance and maintenance of long-term relationships) are increased. Backing by a combined threat from the group reduces the probability of an intentional offense, reduces the costs for member individuals of large personal investments in the tools of violence, reduces the probability that an individual will have to defend his property relative to what it would be in the absence of such an organization, reduces the likelihood that violence will have to be employed to resolve a dispute, and increases the probability that negotiation will be successful. Furthermore, when negotiation fails, the costs of violent dispute resolution are now shared by the group (e.g., as in a "blood feud"). As feuding begins to create costs for others in the group, incentives arise to offer lower cost means of non-violent dispute resolution than direct negotiation. Indeed, mutual support groups are particularly attractive if group members are obligated to (1) act as or provide access to third parties that mediate or arbitrate any dispute between members, (2) assess judgments to make sure that they are just and consistent with existing property rights, and if necessary, (3) help enforce the dispute's resolution (Benson 1990).[6]

If a dispute between group members arises, for instance, pressure might be brought to bear by the group as a whole (the nature of such pressure is examined below) to induce mediation, leading to a settlement viewed to be "fair" by the group at large. A mediator acts as a disinterested go-between who assists the disputants in their negotiations. This may allow the parties to remain apart, thereby avoiding potentially dangerous direct confrontations. Another low transactions cost alternative may be a mutually acceptable arbitrator, with an agreement by the disputants to accept the arbitrator's decision. As Leach (1977, p. 24) notes, however, "even then, the function of the arbitrator is simply to restore peace; it is not part of his duty to adjudicate about the rights and wrongs of the conflict or to inflict penalties." Given this function, it is not surprising that in primitive or religious societies an arbitrator can be supernatural (Nader and Todd 1978, p. 11): "When both parties agree to perform an ordeal or divination and accept the outcome as a decision, the third party in the arbitration is a nonhuman agent."

Rather than assisting in negotiations, the arbitrator considers the issue and proposes a solution which, *ex ante*, the parties have agreed to abide by (a superhuman arbitrator reveals a decision

by the failure of one of the parties to survive the ordeal unharmed). The parties involved must expect the benefits from resolving the dispute peacefully (clarifying rights or, in the case of an intentional offense, reestablishing the old right) to outweigh the cost of resolving the dispute in that manner, or they would not take it to the arbitration (or mediation) system: for instance, if arbitration is perceived to involve more costs than other methods of dispute resolution (e.g., violence, direct negotiation), perhaps because the arbitrator is expected to be arbitrary or biased, then arbitration will not be pursued. Indeed, if one party in the dispute perceives a high cost arising from a peaceful settlement (e.g., because he knows he is guilty), he can still resort to violence. Therefore, the "borderline between law and war" is not fixed (Leach 1977, p. 25), and depending on the individual's perception of relative costs and benefits, any of the resolution mechanisms discussed here (violence, acquiescing, negotiation, mediation, and arbitration) can be observed. Of course, when members of a group are affected by a violent dispute they have strong incentives to raise the cost of violence for group members, *and* to lower the cost of non-violent dispute resolution.

In order to raise the cost of violence, acceptance of non-violent dispute resolution will become a customary obligation that is required for group membership. Customary rights and obligations that induce non-violent dispute resolution can include such things as family loyalty, obligations for past care, honor (or reputation) and the shame that comes with disrupting the social order or invoking the wrath of some supernatural arbitrator. Indeed, resort to violence without first trying to achieve a non-violent solution will result in ostracism by the group. That is, refusal to behave according the accepted rules of conduct, including acceptance of non-violent dispute resolution, can be "punished" by boycott (i.e., exclusion from some or all future interaction with other members of the group). This is possible because customary law is tightly bound with all other aspects of life. Fear of this boycott sanction reinforces the self-interest motives associated with maintenance of reputation and reciprocal arrangements. It also deters intentional offenses. In other words, because each individual has made an investment in establishing himself as part of the community (e.g., establishing a reputation), that investment can be "held hostage" by the community, à la Williamson (1983), in order to insure that the commitment to cooperate is credible.

Furthermore, the costs of non-violent dispute resolution will naturally fall as the institution evolves. After all, since the arbitrator/mediator must be acceptable to both parties in the dispute, "fairness" becomes embodied in the dispute resolution process. As Buchanan emphasizes (1975, p. 68), "Players would not consciously accept the appointment of a referee who was known to be unfair in his enforcement of the rules of the game or at least they would not agree to the same referee in such cases. 'Fairness' or 'justice' may emerge, therefore, in a limited sense from the self-interest of persons who enter into an enforcement contract."

The arbitrator or mediator will have no vested authority to impose a solution on disputants (Leach 1977, p. 24). They are not "adjudicators" backed by coercive power. Under such circumstances, the ruling must be acceptable to the group to which both parties in the dispute belong. An arbitrator or mediator's only real power in such a system is that of persuasion. [7] Indeed, as Fuller (1981, pp. 110–11) explains, "Being unbacked by state power . . . the arbitrator must concern himself directly with the acceptability of his award. He may be at greater pains than a judge to get his facts straight, to state accurately the arguments of the parties, and generally to display in his award a full understanding of the case." This is particularly likely if either: (1) the arbitrator is a specialist who wishes to build a reputation for good decisions in order to maintain or enhance his position in the market for arbitration services, or (2) the arbitrator is a highly reputable member of the community that wishes to maintain that reputation for other reasons. Thus, if the group is large enough so that disputes are not uncommon, certain highly reputable members of the community may be called on to arbitrate disputes so frequently that they can have some formal designation (e.g., elder-man, peace chief, consul; see Benson [1989a, 1990, 1992b] and Popisil [1971]). Alternatively, an approved pool of competitive arbitration or mediation specialists might develop (see Hoebel [1954]; Barton [1967]; Benson [1989a, 1990, 1992a]; Berman and Dasser [1990]; and Peden [1971]).

Given that the arbitrator has convinced the individuals in the affected group that a proposed judgment should be accepted, the loser must pay the arbitrated restitution in order to maintain his position within the group; i.e., he buys back his reputation. Because "fairness" is essential for arbitration to arise in a voluntary system, the ruling can also be backed by a threat of

ostracism by the members of the entire group (e.g., see Hoebel [1954, 1967]; Barton [1967]; Benson [1989a, 1989b, 1990, 1991a, 1991b, 1992a, 1992b]; Berman and Dasser [1990]; Popisil [1971]; Goldsmidt [1951]; and Trakman [1983]). Thus, decisions can be enforced without backing by a centralized coercive authority.

The nature of the sanction is also likely to vary depending upon the intentions and status of the offender. After all, the members of a group wish to deter costly and potentially violent disputes. Disputes that arise because conditions change in unanticipated ways cannot be effectively deterred, of course; but intentional violation of customary behavioral rules by theft, fraud, or malicious slander can be deterred by explicitly setting a higher payment to buy back the peace. In other words, when an intentional offense occurs, the payment is likely to include both restitution and retribution. Indeed, economic restitution and retribution will be the primary types of punishment in a system of customary law, but they may not be the only types of punishment. After all, "a fine is a [relatively] costless punishment: the cost to the payer is balanced by a benefit to the recipient. It is in this respect superior to punishments such as execution, which imposes cost but no corresponding benefit, or imprisonment, which imposes costs on both the criminal and the taxpayers" (Friedman 1979, p. 408). It is clearly possible, however, that the members of a group may hold that some offenses, perhaps intentional murder or rape, are so heinous that it is impossible to compensate for the harm inflicted. For instance, medieval Icelandic (Friedman 1979) and primitive Kapauka (Popisil 1971) legal systems considered capital punishment appropriate for some crimes. It is also possible that the rest of an offender's life will be committed to working to pay the victim or the victim's family, even if full restitution is never achieved.

Ostracism can also vary in severity depending upon the behavior that it is intended to deter. For some minor offenses or disputes, individuals may face the threat of exclusion from some forms of interaction but not others. The resulting shame or dishonor may be an effective deterrent in these minor cases. In many primitive and religious societies, mythology is invoked, for instance, and the resulting religious ostracism can be a particularly frightening threat. Obligations can be characterized as "taboos" punishable through sorcery and supernatural sanctions, or sins punishable through excommunication. For

more severe offenses or disputes, an offender who refuses to participate in non-violent dispute resolution or refuses to accept a fair judgment becomes a social outcast or "outlaw." In fact, "Expulsion from the group is probably the earliest and most effective sanction or 'punishment' which secures conformity, first by mere actual elimination from the group of the individuals who do not conform while later, . . . the feat of expulsion may act as a deterrent" (Hayek 1967, p. 78). As a result of such ostracism, the individual no longer can go to his support group for protection. The plaintiff (or perhaps anyone in the group), therefore, is free to, and perhaps even obliged, to take physical revenge by killing the offender and/or taking the offender's property. Of course, the threat of such violent punishment can be a significant deterrent to illegal behavior. Indeed, similar threats apply in all legal systems, including those that exist today (Umbeck 1981). The fact is, however, that while boycott sanctions are possible, the primary impetus for accepting such rulings is positive self-interest rather than fear of negative consequences. The result can be characterized just as Mises (1949, p. 283) describes the interdependence arising in a free market: "[T]he individual is not bound to obey and to serve the overlord. [Yet] he is certainly not independent. He depends on the other members of society. But this dependence is mutual."

Another characteristic of customary law's sanctions can be predicted in light of its emphasis on individual rights. As with any private property right, the right to restitution will be transferable. An individual might call upon a sub-group (e.g., his immediate family, his religious congregation, his neighborhood) to assist him in prosecuting a strong offender, in exchange for some portion of the settlement, providing the threat necessary to induce that offender to submit to a nonviolent form of dispute resolution (Hoebel 1967; Benson 1991a). Alternatively, a marketable claim for a victim can evolve which can be sold to someone willing to pursue and prosecute the offender (Friedman 1979, p. 414). This, in turn, helps create arrangements under which those who violate the rights of the poor and the weak are pursued and prosecuted. As a customary law system expands and evolves, victims could offer bounties or rewards, but they might simply sell the right to collect a particular fine. Specialized firms (thief-takers, bounty hunters) could arise to pursue criminals and collect restitution; or individuals might contract with firms that attempt to prevent aggression against clients, pay clients who are victimized as insurance companies do, and pursue offenders to

recover the insurance payment. Marketable restitution rights increase the probability of pursuit and prosecution, thereby reducing incentives to commit intentional offenses even further.

It does not follow that violence and blood feud will be completely eliminated under customary law. If one party in a dispute perceives the cost of non-violent dispute resolution to be too high, even given the threat of ostracism, a feud may erupt. As emphasized above, institutions and incentives are developed in a customary law system in order to enhance the potential for peaceful interaction and minimize the potential for violence; but no legal system, no matter how threatening, has ever completely eliminated violence. However, in the event of a feud, customary "rules of war" also generally apply; the result can often be described as "a kind of ritual game" (Leach 1977, p. 25). If one party or the other exceeds the customary bounds of the feud, thereby imposing significant costs on others in the group, they are likely to bring down the wrath of the entire community, so feuds tend to be constrained in their scope and duration. Thus, even when violence arises, rights and obligations apply: "there is, in effect, agreement about how to disagree" (Leach 1977, p. 28).

As Mises (1985b, p. 258) emphasizes, "to deal with social groups adequately and completely, one must start from the actions of the individuals," a condition that clearly applies here. In essence, the individuals "exchange inputs in the securing of a commonly shared output," to use Buchanan's and Tullock's words [1962, p. 19]—the output is the order arising under a commonly accepted set of rules which develops into a customary system of law. But as a consequence of this exchange, total resources devoted to the production of credible threats should fall relative to what individuals acting on their own would have to invest, and the potential for interaction expands.

Changing Property Rights and the Development of Contracts in Customary Law

Customary law has been described as an example of natural law. For instance, Leach contends that

> customary law is not viewed as the recent creation of rational men but as something that was laid down by semi-divine ancestral law-givers in remote antiquity. The justification for conforming to custom is not that it makes sense, but that "*that is*

> *what our ancestors said we should do*". . . . There is an implicit social contract with divine ancestors to obey the rules that they laid down. Failure to conform to conservative custom amounts to an act of sacrilege which will automatically bring about supernatural disaster. (Leach 1977, p. 31)

Equating customary law with natural law is very misleading, however. First of all, even if the rules were passed down unchanged from ancestors, those ancestors were rational humans, not gods, and they developed their rules by considering the costs and benefits of doing so. Second, mythology is important in some customary law systems, particularly among primitive societies and religious communities; but it is not relevant in others (e.g., see the discussions of commercial law in Trakman [1983]; Berman [1983]; Berman and Dasser [1990]; Benson [1989b, 1990, 1992a]). Third, the fact that mythology plays an important role in some customary law systems does not mean that the myth *actually* describes the source of the law. In fact, mutually beneficial behavior can often fit a variety of norms.[8] Fourth, and most significantly, customary law is not static. It evolves and changes as individuals adapt to meet the needs of new conditions. The important issues, then, are why did the rules develop in the first place, an issue discussed above, and why do they evolve and change, rather than how those rules happen to be explained in particular customary law systems.

As Demsetz (1967) explains, property rights will be defined when the benefits of doing so cover the costs of defining and enforcing such rights. Potential benefits of clarifying existing or developing new property rights may become evident because a dispute arises, for example, perhaps implying that existing rules do not adequately cover some new situation. The parties involved must expect the benefits from resolving the dispute and of establishing a new rule to outweigh the cost of resolving the dispute and enforcing the resulting judgment, or they would not take it to the dispute resolution system. The arbitrator or mediator will often have to make more precise those rules about which differences of opinion exist, and at times even to supply new rules because no generally recognized rules exist to cover a new situation (Hayek 1973, p. 99). A dispute resolution's decision becomes a universally applied rule of customary law only if it is seen as a desirable rule by all affected parties, however (Benson 1990, 1991a, 1992a). It is not coercively

imposed on a group by some authority backing the court. Thus, good rules which facilitate interaction tend to be selected over time (e.g., rules that specify or clarify private property rights), while decisions that do not turn out to establish useful rules are ignored.[9] For new rules to be accepted by the members of a group, they generally must be consistent with individuals' expectations, so they must build upon or extend existing values.

Dispute resolution is not the only source of evolving behavioral rules. Individuals may simply observe that others are behaving in a particular way in light of a new situation, and adopt similar behavior themselves, recognizing the benefit of avoiding a confrontation: "It is always an individual who starts a new method of doing things, and then other people imitate his example. Customs . . . have always been inaugurated by individuals and spread through imitation by other people" (Mises 1985b, p. 192). As a consequence of adopting such behavior, the individuals create an obligation to one another to continue the behavioral pattern. A new contract form may develop, for instance, that improves on existing forms by reducing the potential for uncertainty. Others see the benefits of the new contract form and adopt it as well, so it becomes a standard practice in such situations. Fuller (1981, pp. 224–25) explains that "the term *contract law*, therefore, refers primarily not to the law *of* or *about* contracts, but to the 'law' a contract itself brings into existence . . . If we permit ourselves to think of contract law as the 'law' that parties themselves bring into existence by their agreement, the transition from customary law to contract law becomes a very easy one indeed." Customary law and contract law are typically differentiated much more sharply than is suggested here. However, Fuller argues that a sharp distinction is inappropriate:

> if problems arise which are left without verbal solution in the parties' contract these will commonly be resolved by asking what "standard practice" is with respect to the issues in question. In such a case it is difficult to know whether to say that by entering a particular field of practice the parties became subject to a governing body of customary law or to say that they have by tacit agreement incorporated standard practice into the terms of the contract.
>
> The meaning of a contract may not only be

> determined by the area of practice within which the contract falls but by the interaction of the parties themselves after entering the agreement. . . . The meaning thus attributed to the contract is, obviously, generated through processes that are essentially those that give rise to customary law. . . . [In fact,] a contract [may be implied] entirely on the conduct of the parties; . . . the parties may have conducted themselves toward one another in such a way that one can say that a tacit exchange of promises has taken place. Here the analogy between contract and customary law approaches identity. (1981, p. 176)

The expanding use of contract and development of contractual arrangements is, in fact, a natural event in the evolution of customary law. As customary legal arrangements evolve and are improved upon, they tend to become more formal, and therefore, more contractual. In addition, as inter-group interaction develops and expands so that the trust relationships that characterize intra-group interaction do not apply, conflicts are avoided by explicitly stating the terms of the interaction *a priori*; that is, by contracting. A carefully constructed and enforceable contract can substitute for kinship or some other localized source of trust.

III.
Inter-Group Interaction: Competition, Emulation, and Cooperation

No single group is likely to develop its norms and institutions in complete isolation from other groups. Indeed, other groups generally exist in close proximity to any particular group (note that the basis for such groups can but need not be geographic proximity; other bases include kinship and religious or functional proximity, as in the "international business community"), and these other groups' legal systems are likely to be developing in a parallel fashion. Thus, inter-group competition, emulation, and cooperation become possible.

Since voluntary associations include both the ability to voluntarily join a group, given the individual is acceptable to the group's existing membership, and the ability to voluntarily withdraw, inter-group movements are a distinct possibility (e.g., see Goldsmidt [1951]; Popisil [1971]; Peden [1977]; Friedman

[1979]; Umbeck [1981]; Benson [1989a, 1990, 1991a, 1991b]). Thus, if rules and/or institutions develop in one group which differ from the rules and/or institutions in a parallel group, there will be a tendency for individuals to "migrate" to the group whose law best facilitates voluntary interaction. The coexistence of diverse parallel jurisdictions and legal systems therefore creates incentives to compete to attract or hold membership. But, as a result, existing members of all the various legal systems have incentives to adapt to their own uses many of the legal concepts and institutions of other groups which appear to be beneficial. Through imitation of desirable institutions and behavioral rules developed elsewhere, groups can avoid the potential of lost membership (and reduced beneficial interaction) to other groups; and for that reason, too, there is a tendency for the rules and institutions of each group to achieve the same degree of cohesion and sophistication as is developing in parallel systems. Not all differences need be eliminated, but standardization of many rules and institutions across similarly functioning groups is likely.

The formation of several parallel "localized" mutual support groups can take on even more functions. For example, a member of one group may wish to trade with a member of another group, but the two individuals may not expect to trade frequently so the dominate strategy is one of non-cooperation. After all, repeated-game and reputation effects are localized within a group, and there generally is no potential for a boycott sanction to be applied against someone who is not in the group.[10] It may be that there is considerable potential for mutually-advantageous interaction between the two groups as a whole, however, even though each individual within each group may not anticipate frequent interactions with members of the other group. That is, the groups of individuals as a whole may be in a repeated-game situation with one another, with fairly large potential benefits from cooperation that can be internalized, even though this is not necessarily true of any of the specific individuals in the two groups (at least, before inter-group relationships develop). If members of each group recognize the benefits from inter-group interaction, then inter-group legal cooperation may evolve.

Inter-group cooperation is hindered by a significant assurance problem, however. Each individual must feel confident that someone from the other group will not be able to take advantage of him and then escape to the protection of that other group. Thus, some sort of inter-group insurance arrangement becomes desirable, as well as establishment of an apparatus for

inter-group dispute resolution. For instance, in order to develop a group's reputation, the membership might bond all members in the sense that they will guarantee payment if a member is judged to be in the wrong in a dispute with someone from the other group. The mutual support group becomes a surety group as well (e.g., see Rothbard [1973]; Peden [1977]; Friedman [1979]; Benson [1990, 1992b]). Membership in a group then serves as a signal of reputable behavior to members of another group, and lack of membership serves as a signal that an individual may not be reputable. Furthermore, if a member of a group cannot or will not pay off a debt to someone from the other group, as established by an acceptable arbitrator, then the debtor's group as a whole will, in order to maintain the benefits of the group's reputation. And as a consequence, the individual for whom the group has had to pay will owe his own group members rather than someone from a separate group. In this way the boycott threat comes into play once again. Members of a group are not going to continue bonding an individual who generates debts to the group's membership but does not pay them off, after all. More significantly, however, because of the large long-term benefits of intra-group interaction, the self-interest incentives to maintain intra-group relationships come into play.

A dispute resolution apparatus is essential for inter-group cooperation to develop. A judgment involving an inter-group dispute will have to be considered to be fair by members of both groups, of course. Therefore, an equal number of individuals representing the group might serve as an arbitration board for disputes between individuals from the two groups (e.g., see Goldsmidt [1951]; Friedman [1979]; and Benson [1990, 1992b]), for example, or a mutually acceptable third party (i.e., an arbitrator or mediator with a reputation for good judgment) might be chosen (as in Barton [1967]; Hoebel [1954]; Peden [1977]; Popisil [1971]; and Benson [1990]). This provides another reason for the tendency toward standardization of customary law across parallel groups with similar functions.

A group whose members insist on strictly imposing their own morality and penalties on outsiders would probably be unable to initiate inter-group trade or other forms of beneficial interaction. And if they were able to begin such activity, they would face continual clashes, followed by boycott sanctions by other groups whose members refuse to visit or trade with them. Indeed, if the benefits of inter-group interaction are substantial, those who hold the norms the group wishes to impose, but

relatively weakly, will leave first to join other groups, and others will follow as property values and trade generated incomes decline. Thus, if the membership of a group wishes to simultaneously facilitate inter-group interaction and impose laws that differ substantially from the norm in other groups, its members have strong incentives to inform outsiders of the differences in order to avoid conflict and minimize the difficulty of maintaining non-standard laws. Part of the reciprocal agreements with other groups may be the explicit recognition of differences in laws and procedures for treating conflicts, for example. No group can effectively enforce its rules on outsiders without the support of outsiders. Rules for members of a group may be relatively restrictive, but the rules that apply to outsiders as a result of interaction will have to be moderated if the group is to survive in a free and competitive environment. This in turn implies that as inter-group interactions expand, a hierarchical jurisdictional arrangement may become necessary. For example, each localized group may have jurisdiction over disputes between its members, while disputes between members of a confederation of different groups that interact frequently are settled by some higher confederation level court, and disputes between members of even more dispersed groups from different confederations, such that individuals from the localized groups do not interact frequently but individuals from the two confederations do, may go to an inter-confederation court (e.g., see Popisil [1971] and Benson [1990, 1992b]). Note that these courts are not "higher" courts in the sense that one has some power or authority over others that allows them to overturn lower court decisions upon appeal. Rather, this is a jurisdictional hierarchy that defines the role of each court and allows for increasingly more distant interactions. This allows for differences between the customary law that might be applied within different groups *and* between groups (Popisil 1971). Indeed, Llewellyn and Hoebel (1961, p. 53) point out that the traditional (Western) bias of trying to delineate some all-embracing legal system for a society as a whole can be very misleading: "What is loosely lumped as a custom [from an all-encompassing perspective] can become very suddenly a meaningful thing—one with edges—if the practices in question can be related to a particular grouping." They emphasize that an understanding of customary law requires that groups provide the points of reference rather than some "society" as a whole (1961, p. 28): "there may then be found utterly and radically different bodies of

'law' prevailing among these small units, and generalization concerning what happens in 'the' family or in 'this type of association' made on the society's level will have its dangers. The total picture of law-stuff in any society includes along with the Great Law-stuff of the Whole, the sublaw-stuff or bylaw-stuff of the lesser working units."

There clearly are limits to how extensive an inter-group network of cooperation can be. The limits are not fixed, however. They depend on the relative costs and benefits of information about other groups and their customary legal systems. As economic conditions change the costs and benefits of information can change, so new inter-group relationships may evolve over time. The costs of establishing inter-group legal arrangements depend in part on how "distant" the groups are from one another, where distance can be in terms of geographic space, or in terms of the behavioral norms that are relevant to the groups. While customary groups all tend to emphasize private property, the costs and benefits of establishing the rights and obligations relevant to each group can be quite different, so that different norms are applied. Members of families who join into a larger kinship group, or members of a religious or commercial community with strongly shared values, can easily have most everything go as expected because each individual's expectations about other's obligations are very accurate. Even if disputes arise (and quarreling among members of a family is certainly commonplace) they are very likely to be settled in an amicable way. On the other hand, where individuals in different groups do not share significant values, and therefore, where intragroup behavior is based on substantially different expectations than inter-group behavior must be, inter-group organizations may fail to develop. Individuals who do not interact frequently may base expectations on incorrect or prejudicial views of members of the other group, so mutual incomprehensibility is likely to prevent effective cooperation.

This discussion implies that a customary legal system is, in a sense, flawed, or inefficient. Relative to some perfect ideal, this is certainly the case. However, the ideal against which such a system must be compared in order to draw a conclusion that the system is inefficient, is, in general, unobtainable. Thus, in a realistic sense, the customary legal system is efficient. After all, it results from the interaction of maximizing individuals. Maximizing behavior means that the actions taken are never deliberately wasteful. The actions reflect individuals' weighing of

their expected benefits and expected transactions costs, so the perceived gains of a decision always should exceed the perceived costs. Therefore, a decision by individuals in two different groups not to establish cooperative legal arrangements is an efficient decision. Of course, there may be benefits that the individuals do not fully recognize, so there may be some potential benefits from a more extensive legal arrangement that are not internalized, at least in hindsight, but the fact is that uncertainty and expected transactions costs exist that may prevent the formation of an all-encompassing customary legal system. Possibly through coercion a benevolent legal authority could improve on a completely customary legal arrangement then? Friedman answered this question in the following way:

> One cannot simply build any imaginable characteristics into a government; governments have their own internal dynamic. And the internal dynamic of limited governments is something with which we, to our sorrow, have a good deal of practical experience. . . . the logic of limited government is to grow. There are obvious reasons for that in the nature of government, and plenty of evidence. Constitutions provide, at the most, a modest and temporary restraint. As Murray Rothbard is supposed to have said, the idea of a limited government that stays limited is truly Utopian. (1973, pp. 200–1)

In addition, the limit on the potential for inter-group interaction may actually be less significant than it first appears to be. After all, in reality, as Mises explains,

> Man is not the member of one group only and does not appear on the scene of human affairs solely in the role of a member of one definite group. In speaking of social groups it must be remembered that the members of one group are at the same time members of other groups. The conflict of groups is not a conflict between neatly integrated herds of men. It is a conflict between various concerns in the minds of individuals. (1985b, p. 257)

A member of several groups has obligations to other members of each group and they have obligations to him. Thus, he is in fact

familiar with the behavioral rules of several different groups and is in a position to facilitate the development of inter-group ties. "Indeed, in any complex society such as ours, there are almost as many distinguishable systems of customary rules and conventions' as there are individuals" (Leach 1977, p. 28), and yet people from many of these different systems interact regularly without having to call upon any dispute resolution process (not to mention, any legal authority). Inter-group cooperation appears to be the norm rather than the exception, and it appears to be quite widespread.

It should also be noted that an all inclusive legal system has some very undesirable results because it eliminates the potential for competition and emulation. For instance, if a dispute arises with someone else who is also a member of some of the same groups, they might choose among the groups' alternative dispute resolution processes. Indeed, the availability of alternative dispute resolution processes reinforces the tendency of customary law toward fair dispute resolutions. If one forum is biased, a disputant can demand the use of an alternative. A compromise is to use a forum that is fair. As Berman explains,

> The very complexity of a common legal *order* containing diverse legal *systems* contributes to legal sophistication. Which court has jurisdiction? Which law is applicable? How are legal differences to be reconciled? Behind the technical questions lay important political and economic considerations. . . . The pluralism of . . . law, . . . has been, or once was, a source of development, or growth—legal growth as well as political and economic growth. It also has been, or once was, a source of freedom. (1983, p. 10)

Berman includes the "or once was" phrase in recognition of the fact that diverse legal systems are increasingly being subjugated and centralized under the authority of coercive state governments.

IV.
The Conflict Between Custom and Authority

Short-run considerations can dominate under certain circumstances, of course (Mises 1985b, p. 236), and while

individuals have strong incentives to cooperate and avoid conflict when they are likely to interact frequently (e.g., when long-run considerations dominate), they have very different incentives when "the discipline of repeated dealings" does not apply (e.g., when short-run gains appear to outweigh long-run benefits). Indeed, when wealth enhancing voluntary interaction is unlikely (or when the gains are not likely to be very large), individuals may have stronger incentives to take wealth away from the others rather than attempt some reciprocal arrangement for mutual satisfaction.[11] The taking of wealth will be resisted, of course, if the potential victim feels that he is strong enough to resist, so violent confrontation is likely, particularly if the potential loser is a member of a support group. After all, one form of mutually beneficial interaction within the groups described above is in cooperative defense against outsiders, since an important internal function of these groups is the protection of private property, and such a taking by an external aggressor is a theft. In order to reduce the cost of such violence, those seeking transfers must amass sufficient strength to coerce compliance.

One way to reduce the potential for resistance to a transfer effort is to employ a "professional army." However, if an individual can persuade others of a like mind to cooperate and share the cost in a taking effort (e.g., by serving in an army or contributing financial support for it) in exchange for a share of the transferred wealth, then that individual lowers his own costs. Thus, there are incentives to develop cooperative mechanisms for taking and transferring wealth. Of course, when some individuals form groups for the purpose of taking from others, then others have incentives to expand their groups which share the cost of protection. Indeed, many of the historical examples of localized support groups whose internal legal arrangements can be characterized by the customary legal system described above, were simultaneously involved in warfare with other groups (e.g., see Popisil (1971); Benson (1989a, 1990, 1991a, 1992b); Hoebel (1954, 1967); and Peden (1971)). In European tribal groups, for example, Kingship initially developed for purposes of warfare (Benson 1990, 1992b). As kingship developed, a centralized hierarchical structure of top-down command also developed since this institutional arrangement proved to be the most effective for the purposes of warfare.[12] During these early developments, however, kings had no law-making or law-enforcing authority.[13]

Military conquest means that different groups are forced to become sub-groups within a collective kingdom ("kingship" will be used to describe all such arrangements, and the area over which a military leader exerts authority will be called a "kingdom"). As more subgroups are subjugated by a single centralized military authority, the potential for taking from one sub-group and transfer to another *within* that Kingdom arises. The evolution of kings' authoritarian roles in internal law making and enforcement (i.e., legislation, adjudication, and law enforcement affecting relationships within the Kingdom as opposed to external relations with other kingdoms), is completely analogous to the development of the external role of Kingship (Benson 1990; 1992b). That is, a legal system emanating from a centralized hierarchical authority, referred to here as "authoritarian law," has as its primary functions the development and use of rules and institutions for taking wealth from some and transferring it to others, and for discrimination among sub-groups on the basis of their relative power in order to determine gainers and losers. Indeed, in Europe, authoritarian legal functions were taken on by the kings' military hierarchy initially, until the increasing demands for authoritarian law led to its own specialized bureaucratic hierarchy.

In many nation-states, rule by kingship has been replaced by other sources of authoritarian law, such as elected representative bodies. Nonetheless, "The essential characteristic features of state and government . . . are present both in despotic and in democratic governments" (Mises 1985a, p. 47). Authoritarian law, whether imposed by kings or an elected representative assembly, involves the taking of wealth from relatively weak sub-groups in order to transfer it to relatively powerful sub-groups, or "interest groups" in reflection of the self-interest motives of the decision-making authorities (Benson 1990; 1992b): the distinction is in terms of who gets what, "not in the incentives and motives" (Mises 1985a, p. 5; also see Hayek 1973, p. 3). Authoritarian decision-makers discriminate between competing interest groups on the basis of what they can give to the decision-maker.[14] The self-interest motives of government decision-makers *must* be recognized in the context of an authoritarian transfer process. Kings were clearly not simply impartial transfer mechanisms. They demanded (took) transfers for their own benefit when they felt they had sufficient power,

and even when they entered an exchange, thereby transferring to others, the support gained generally enhanced their own wealth and power relative to what it would have been in the absence of the exchange.

Authoritarian Law and Property Rights

The internal taking/transfer mechanisms all involve property rights alterations to benefit some at the expense of others. Taxation is the taking from a resource owner of part of the right to the income derived from productive uses of property (including labor services), for example.[15] Another fairly obvious transfer occurs when property of some kind is confiscated or someone is forced to sell property for less than its value in a voluntary exchange, and then the property is given to or used for the benefit of others.[16] Other rights modifications simply place limitation on a person's use of his property. For instance, a monopoly franchise simultaneously grants an exclusive right to produce and restricts or attenuates rights to the use of other individuals' resources who might wish to enter that market. All such transfer activities are completely analogous to theft (Tullock 1967).

An important implication of an authoritarian modification in property rights, is that there will be a series of adjustments through time. Some of these changes are predictable. For instance, once sufficiently organized power is exerted to cause decision-makers to make an authoritarian change in a rights assignment, those who would be harmed by the change must either organize and apply counter pressure, or resign themselves to being worse off. The same "prisoners dilemma" arises in this internal political struggle for property rights as arises in the external struggle between governments.[17] Thus, there is a potential for spiralling competition between interest groups much like the spiralling arms build up that typically characterizes inter-governmental competition.[18] As the relative strength of interest groups change, the magnitude and direction of transfers change. Of course, as a new interest group successfully organizes, it does not follow that the original rights modification will be reversed. After all, that would harm the previously organized and already powerful group. Some modification of the earlier change is possible, but a more probable response is that the authority will grant some alternative favorable treatment to compensate the new group for

its earlier losses. This change is likely to harm an as yet unorganized group.[19] That group then has relatively strong incentives to organize and seek rights modifications. Competition leads to emulation, of course, and at times competing interest groups might cooperate with one another in an effort to defeat yet another group. The repeated "redistributive game" is often one of coalition formation and splitting (Jasay 1989, pp. 117–21). Thus, demands for authoritarian rights modifications grow over time.[20]

Another series of adjustments arising from an alteration in property rights is also predictable. Legal authorities can never anticipate all of the consequences of their rulings (Hayek 1973, p. 51; Mises 1985b, pp. 195–96, 378). "Yet every action. . . . affects the course of future events" (Mises 1985b, p. 195). After all, property rights provide incentives which condition behavior, so a change in rights changes behavior. The customary legal structures described above emphasized private property and individual rights. Since authoritarian law produces rights transfers, it follows that at least initially, authoritarian legal developments imply restrictions on private property and individual rights (later, interest groups may form which successfully press for reestablishment of certain rights, of course —those who suffer loses tend to press for a return to a previous rights structure (Benson 1990, 1992b)). At any rate, it is clear that under authoritarian law, property rights are permanently vulnerable to authoritarian alterations. When rights are significantly altered through authoritarian changes in law, or when they become sufficiently tenuous due to frequent legal changes, individuals' behavior changes. Given a loss of rights, for instance, individuals will quit performing previously worthwhile functions. If the functions are demanded by powerful interest groups, the legal authority will either try to force the previous behavior, or directly produce the functions (Benson 1990, 1992b).[21]

Authoritarian Institutions

Authoritarian decision-makers could conceivably respond to growing interest group demands strictly through legislation, and enforce the resulting law personally, but the fact is that a decision-making authority's own time and resources are limited, so increased demands ultimately force delegation of certain responsibilities to lower levels of authority: a bureaucratic

system must emerge “in the administrative apparatus of every government the sovereignty of which stretches over a large area” (Mises 1983, p. 15).[22] This is particularly true in the area of policing. After all, “while there is usually little need for external force to uphold the customary law, the authoritarian law . . . needs for its enforcement the prestige and influence or even the intimidation and physical force of the authority and his supporting minority” (Popisil 1971, p. 344).

When authoritarian law applies and a dispute arises, litigants are generally trying to manipulate the existing rights structure. Wealth transfers are the goal of one party in a dispute and avoidance of the transfer is the goal of the other. The dispute might be taken before a third party tribunal to be resolved. Under these circumstances, disputes are negative sum competitions: one party wins, another loses, and both parties incur dispute resolution costs. They are, therefore, much more adversarial in nature than potential positive sum customary law disputes (i.e., clarification of private property rights to generate long-term benefits), and as a result, the authoritarian institution of dispute resolution will be different from the institutions of customary law. Adjudication, in which a judge is backed by coercion (a police force, prison system, executioner, etc.) to force the disputants into court and impose his decision, is generally necessary when negative sum disputes are involved. The authority may actually take on an adjudication role, as English kings did, for instance, (and use military forces to back his rulings) although a judicial (and policing) bureaucracy is certain to arise. As the scope of legal authority expands and property rights attenuations increase, the cost of judicial activities, in terms of time and effort, become too high for the authority.

Since authoritarian law transfers wealth from the weak to the powerful, a powerful individual or group often can induce the authority to serve as a representative in the litigation process. Indeed, the legal authority often benefits from the transfer, and while the authority might be in a position to simply take the desired property, there are strong incentives to make “legitimate” the taking by using legal institutions, in order to minimize the potential for a public outcry and organized resistance, and in order to offer the loser a non-violent arena for protest. Therefore, in matters of authoritarian law the authority often takes on the role of prosecutor before his own judicial bureaucracy and then, as legal activities increase, develops a prosecutorial bureaucracy for that purpose. Thus, as dispute

settlement becomes one of deciding who gets what in a negative sum transfer process, rather than a clarification of property rights, “the true plaintiff becomes the victim, [and] the state becomes the plaintiff” (Nader and Todd 1978, p. 38). Indeed, so called “victimless crimes” become increasingly likely as powerful groups demand that new “offenses” be defined as criminal because they offend the “morality” or transfer potential of those with power. Clearly, restitution backed by ostracism can no longer be the relevant sanction since the victim is the loser. Therefore, sanctions take on other forms: capital punishment, confiscation of property, fines paid to the authority, and imprisonment.

Of course, given the expected cost of adjudication, as well as the cost of sanctions which can be imposed through coercion, “extrajudicial processes will develop . . .; so will self-help procedures” (Nader and Todd 1978, p. 38). The expected loser may be willing to negotiate an out-of-court settlement, for instance, or accept a mediator or arbitrator. The impetus for these extrajudicial processes is similar to the impetus under customary law in that they are means of avoiding costs. Under customary law, they are used to avoid the cost of violence, however, while under authoritarian law they are used to avoid the cost of adjudication. As explained below, however, a legal authority has incentives to monopolize the legal system, so arbitration and other sources of non-adjudicated dispute resolution may be discouraged by making it more costly or even “illegal” (e.g., see Trakman [1983]; Benson [1989b, 1990, 1992b]). But if the potential loser perceives the expected cost of avoiding adjudication and of using extrajudicial processes to be greater than the expected cost of “self-help” (i.e., violence against the other party), then that also becomes a viable option. This self-help is no longer constrained by the threat of ostracism. If the physical and/or economic sanctions threatened by the authority are less effective than the threat of ostracism by a customary law group, then violence can increase. As policing bureaucracies are expected to enforce increasing numbers of laws (e.g., such as those against victimless crimes), for instance, the probability of being caught by an imperfect policing system is lowered. Indeed, if scarce policing resources are also increasingly less available to control customary offenses against persons and property, such offenses can also increase, and self-help solutions are likely to follow.[23]

Custom versus authority

Authoritarian law requires a substantial amount of localized monopoly power in order to truly impose law that generate transfers; as Mises (1985a, p. 46) notes, "A state without sovereignty is a contradiction in terms." When people can choose between alternative sources claiming legal authority, for example, then these legal arrangements have to compete for the attention of potential subjects. Thus, the supposed authority really has little authority, since individuals will be able to opt for an alternative legal system whenever there is an attempt to take wealth from them without sufficient compensation. As a result, those who wish to generate wealth transfers by establishing some authoritarian rule will have to claim to be the source of all law, whether that truly is the case or not. Competition leads to emulation, of course, and at times competing legal authorities might cooperate with one another in an effort to defeat yet another rival for authority. The changing tides of cooperation and competition between cannon law of the Roman Church, royal law of developing kingdoms, and feudal law of the manors in medieval Europe were very important in shaping Western legal tradition (Berman 1983). Coalitions do not last, however: ultimately authority requires monopoly.

Authoritarian legal systems, with their centralized power, also attempt to absorb customary legal systems over time, simultaneously adopting many aspects of the customary system and altering others. The reason for this absorption is the same as the reason for competing with alternative claimants to legal authority: an effective authority must be an exclusive legal monopoly in some area. In addition, as Mises explains:

> people have been eager to falsify historical evidence and to misrepresent the course of events. The endeavors to mislead posterity about what really happened and to substitute a fabrication for a faithful recording. . . . were often prompted by the [falsifiers'] desire to justify their own . . . actions from the point of view of the moral code of those whose support or at least neutrality they were eager to win. (1985b, pp. 291–92)

Thus, Hayek (1973, p. 126) suggests that as "the enforcement of law [became] regarded as the primary task of government, it was natural that all the rules which governed its activities came to be

called by the same name [law]. This tendency was probably assisted by a desire of governments to confer on its [authoritarian] rules of organization the same dignity and respect the [customary] law enjoyed." Furthermore, beneficiaries of the authoritarian transfer process support and encourage this falsification and absorption effort of the authoritarian decision-making institution.

In this regard, Kings claimed exclusive "divine rights" as they attempted to impose legal authority. Authoritarian law also evolves "naturally" from the self-interested behavior of individuals, after all, so it is not surprising to find the concept of natural law being invoked to support authoritarian legal arrangements, just as similar myths are evoked to explain naturally evolving customary law. Indeed, while mythology is often seen as a characteristic of customary law, it may play a more significant role in authoritarian law. Legal positivism is, in fact, a convenient "myth" for those who want to assert the control of a nation's authoritarian legal system.

The myth of legal positivism is clearly revealed when law and justice are equated, as they often are by the backers of a centralized legal system. Centralized authority has increasingly claimed to be the only source of law, but as MacCallum notes, the result is that

> There is in the public sector of our society . . . an organization of force which in collecting its necessary revenues and carrying out its operations contrasts sharply with the proprietary norms. Western society suffers a schizophrenia in the public field whereby the same agency that provides wanted public services also performs such public dis-services in the course of its operations and acts so irresponsibly in other ways as to be cannibalizing the society from which it springs. Its system of coercions and its irregular administration of rules deter, demoralize, and drain the resources of those engaged in economic tasks. Consequently the very word *government* has ambiguous connotations. In one breath it calls to mind an image of benign public service, and in the next, a threat to the continued existence of the community. (1964–65, p. 58)

The apparent "schizophrenia" in government arises because of

the conflict between the rules and institutions of custom and authority (or "property and sovereignty"). Yet, so pervasive are the processes of authoritarian absorption of law that Fuller suggests that (also see Mises 1983, p. 4):

> the tendency is to convert every form of social order into an exercise of the authority of the state . . . Legislation, adjudication, and administrative direction, instead of being perceived as distinctive interactional processes, are all seen as unidirectional exercises of state power. Contract is perceived, not as a source of "law" or social ordering in itself, but as something that derives its whole significance from the fact that the courts of the state stand ready to enforce it. (Fuller 1981, pp. 156–57)

Customary rules and institutions which are relatively efficient evolve to replace those which are less efficient. Since authoritarian law often evolves to replace or at least absorb and build upon customary rules and institutions, some observers might contend that the authoritarian system must be more effective. While it is true that "everything that happens is the necessary sequel of the preceding state of things" (Mises 1985b, p. 77), it also follows that the legal institutions which evolve to facilitate involuntary transfers will be quite different from those which characterized the customary law systems detailed above. It is quite conceivable that authoritarian legal institutions which are relatively ineffective will be replaced by more effective institutions through a similar process to that which characterizes the evolution of customary law and its accompanying institutions. The evolutionary processes themselves need not be different, however, for outcomes to be quite different. Mises (1983, p. 52) notes "Government efficiency and industrial efficiency are entirely different things," and in the same fashion, while customary and authoritarian legal institutions could be equally effective at facilitating their purposes, those purposes are different.[24] As Mises (1985b, pp. 48–49) emphasizes, one of the primary underpinnings of the natural law doctrine is valid: "the idea that every . . . law of a country was open to critical examination by reason." The problem with the advocates of the doctrine of natural law is that they fail to recognize what the appropriate standard of comparison is. The standard is not some set of pre-ordained natural laws, but rather, it "must be found in

the effects produced by a law" (Mises 1985b, p. 49). Law can facilitate voluntary interaction or involuntary transfers; clearly this is a standard of comparison. Indeed, Mises (1985b, p. 54) maintains that the "ultimate yardstick of justice is conduciveness to the preservation of social cooperation."

Given the undesirable consequences of authoritarian law for large numbers of individuals, it is not surprising to find that in no case has the power of the authority become absolute (Leach 1977; Mises 1985b, p. 374). In fact, in some cases, the rise of authoritarian law has been successfully resisted to a substantial degree. Resistance to legal authority is likely to be most effective where the benefits generated through voluntary interaction are very large and/or the relevant group interacts across the jurisdictions of different authorities so that inter-jurisdictional competition occurs. Thus, the international merchant community of medieval Western Europe is one such example (Trakman 1983; Berman 1983; Benson 1989b, 1990, 1992a), and it was from the resulting system of values and customary law that modern commercial law, the backbone of international trade, emerged. Indeed, modern international commercial law which evolved from this medieval legal system, remains as a largely voluntarily produced and enforced system of customary law, despite many attempts by various coercive governments to subjugate it over the centuries (Trakman 1983; Berman and Dasser 1990; Benson 1989b, 1990, 1992a).

Many other groups which started with customary law systems did not achieve a market order, however. The fact is that at some point many of these evolutionary processes have been interrupted by coercive forces, either from internal or external power bases, before a market order was able to emerge. The interruption can be abrupt, as through military conquest, or gradual, as through a gradual breakdown in the incentives to voluntarily interact for mutual gain (and the resulting breakdown of these incentives' accompanying norms and institutions), as authoritarian institutions expand their scope. The evolution of rules and institutions is an ongoing process, however, characterized by a continuing conflict between custom (voluntary arrangements) and authority. In some cases custom dominates and the authoritarian powers of government are limited or even diminished, as during the "liberal" era of much of the nineteenth century in the United States, Britain, and some parts of Europe (and apparently today in parts of Eastern Europe). But the fact is that "government becomes liberal only

when forced to by the citizens" (Mises 1985a, p. 58). When citizen resistance is not strong enough, authority expands its scope, as it has in most of the world during most of the twentieth century. Indeed, a combination of custom and authority virtually always exists in any legal system. However, just as Mises (1985a, p. 241) convincingly argues that "It is a delusion to believe that planning and free enterprise can be reconciled," it is similarly true that authoritarian government's control of the legal apparatus is incompatible with the establishment of the freedom that arises under customary law. The objectives that underlay these two different sources of law are inconsistent, so no stable "equilibrium" relationship between the two will ever arise.

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[1] Also see Mises (1983, p. 18; 1985a, pp. 48–50), and footnote 13.

[2] Recognize with Mises (1985a, p. 14), that in order to "understand the present state of political affairs [we] must study history," and note that the literature on legal history reveals a substantial amount of evidence which makes "clear that property and contract were . . . functioning social institutions before state-made laws existed or were even conceived of" (Fuller 1981, p. 174). Many predominantly voluntary arrangements for internal order have been described by anthropologists, historians, and scholars studying modern groups and associations (e.g., see [Hoebel 1954, 1967; Barton 1967; Popisil 1971; Goldsmidt 1951; Peden 1971; Friedman 1979; Berman 1983; Trakman 1983; Umbeck 1981; Berman and Dasser 1990]). Nonetheless, while some economists (e.g., Rothbard [1970]; Friedman [1973]) recognize the logical contradiction between a voluntary, decentralized free market and a centralized, coercive authority for law, an observation made by Leoni (1961, p. 90) still generally applies: The fact is that even Mises and others "who have brilliantly defended the free market against the interference of the authorities have usually neglected the parallel consideration that no free market is really compatible with a law-making process centralized by authorities." Thus, a theoretical presentation using the game-theoretic jargon of "modern" economics seems appropriate.

[3] Actually, the solution still depends on payoffs and other considerations (Tullock 1985, p. 1073).

[4] It should be emphasized that there is no distinction between criminal and tort law in a customary legal system.

However, a large proportion of the offenses which appear in a modern criminal code are still illegal (e.g., see Hoebel [1954, 1967]; Barton [1967]; Benson [1989a, 1990, 1991b, 1992b]; Popisil [1971]; Goldsmidt [1951]; Peden [1971]; Friedman [1979]). Indeed, the primary concern of such a voluntary system is protection of private property, including prevention of theft and violence.

[5] Indeed, private property is a key characteristic of all societies wherein reciprocity and reputation is the primary impetus for recognition of behavioral norms or values (Benson 1990). In such a setting, there does not even appear to be any viable reason for voluntary cooperation that does not involve a relative increase in the degree of privatization of rights to property for the group. Individuals with no existing claims to property might conceivably cooperate in order to take property out of the commons and restrict others' access to it, for example; but the result, if the group is successful, is that access and use rights to the property and claims to the benefits from such use become internalized by the group (i.e., privatized relative to what they were).

[6] Note that the mutual support group may have many functions besides its legal role. Primitive kinship groups, for example, might have been primarily concerned with cooperative production of food, shelter, protection from outside threats (or taking of wealth from outsiders, as noted below), and/or religious functions. Even though they also developed a system of customary law to maintain internal order, they may not have fully recognized the importance of this function for facilitating interaction, attributing the results instead to some mystical source. As Mises (1985b, p. 240) notes, "Where people did not know how to seek the relation of cause and effect, they looked for a teleological interpretation. They invented deities and devils to whose purposeful action certain phenomena were ascribed. A god emitted lightning and thunder. Another god, angry about some acts of man, killed the offenders. . ." Also see footnote 8 and related discussion.

[7] In this light, Fuller (1981, p. 134) observes that "A serious study of mediation can . . . offset . . . [the assumption] that all social order must be imposed by some kind of 'authority'. When we perceive how a mediator, claiming no 'authority', can help the parties give order and coherence to their relationship we may in the process come to realize. . . . that social order can often arise directly out of the interactions it seems to govern and

direct."

[8] In fact, mythology appears to be a rational development in itself. Taboos against incest are common among primitive societies, for instance. These people do not know why the offspring of incestuous relationships tend to be physically or mentally impaired but through observation, they learn that they are. Thus, in order to avoid the cost of caring for such people they decide that the gods have declared such relationships to be taboo in order to discourage them. In addition, when the costs of obtaining information exceed the benefits, it is very rational to be ignorant; and similarly, when the desired behavioral results can be obtained without incurring all of the costs of informing others of the precise reason for the behavior, then it is rational to do so. Whether the desired behavior arises because an individual is correctly informed by those knowledgeable of such things, so that he expects the economic benefits to exceed the cost of behaving differently, or if he expects a supernatural disaster if he behaves differently, the outcome is the same.

[9] This description of the evolution of customary law may appear to be quite similar to the analysis of common law that has lead several legal theorists to conclude that it produces "efficient" rules (Leoni 1961; Rubin 1977; Priest 1977; Hayek 1973, pp. 94–103). However, there are actually important points of departure. For instance, while much of common law was simply a codification of the basic norms common to Anglo-Saxon society (that is, customary law), common law was also authoritarian royal law, and therefore, even during its earliest development some aspects of it were imposed by authoritarian sources described below (Benson 1990). Footnote 24 contains related discussion.

[10] There are possibilities of inter-group boycotts, of course. Consumers as a tacitly organized group might boycott individual producers or producer groups, for instance.

[11] For instance, as Tullock (1985, p. 1079) notes, once a person's reputation is lost, there is virtually no reason to behave cooperatively in the future, because the cost of rebuilding a reputation is extremely high. Therefore, such a person has incentives to become a thief or to "con" people.

Note that wealth or well-being "does not refer only to concerns commonly called egoistic but comprehends everything that appears to an individual as desirable and worthy"; nonetheless, the "fact that most people are eager to get more tangible good is a datum of economic history" (Mises 1985b, pp.

206–7).

[12] It does not follow that every kingdom was constantly at war. The competitive process of emulation of successful military institutions, arms built up, and strategic alliances between kingdoms, might maintain relatively equal levels of military power for some time, thereby deterring aggression.

[13] Despite the focus on nation-states and their governments, this theory of authoritarian law is not simply a restatement of the "rent-seeking" or "interest-group" theory of government. Perhaps two points will help to clarify this. First, for reasons explained below, many rules of conduct enforced by governments' legal apparatus are codified custom rather than new rules imposed by some authority. Thus, an examination of any government's law will reveal many aspects which may not fit a transfer theory. Indeed, governments have functions which do not involve internal legal order, some of which may be consistent with a transfer theory (i.e., warfare), but some may not be. Second, as Mises (1985a, p. 47) recognizes, "not every apparatus of compulsion and coercion is called a state. Only one which is powerful enough to maintain its existence, for some time at least, by its own force is commonly called a state." Historically, powerful entities that were not geographically defined states or kingdoms, such as the medieval Roman Catholic Church, have been able to take property rights from others through the use of authoritarian legal institutions (Berman 1983). Even today, there are other sources of such law. Consider modern organized crime, for example. These organizations establish rules of conduct for members backed by enforcement mechanisms and sanctions. Some of their rules and institutions have evolved over time as customary law, through voluntary interactions of members, but they also use an enforcement apparatus and threat of sanctions to extort payments from individuals who do not want to voluntarily interact with them (e.g., "protection rackets"). Thus, organized crime is like kingship and modern representative governments in that it uses authoritarian institutions to take from some individuals within its sphere of influence for the benefit of those with power. The scope of authoritarian law therefore reaches beyond governments' legal arrangements, and it need not cover every aspect of modern government. Nonetheless, "whatever functions it may assume, the state is always characterized by the compulsion and coercion exercised" (Mises 1985a, p. 47) while non-state entities are not necessarily so characterized.

On a related issue, recall the introductory discussion regarding Mises's view of the necessity of a coercive state. A group ruled by customary law need not constitute a state, as typically conceived. Indeed, it might be appropriate to characterize the institutions and processes of the customary law with Buchanan's term of "ordered anarchy" (1975, p. 180). However, von Mises (1985a, p. 93) argues that "The right and true state . . . is the state in which I or my friends, speaking my language, and sharing my opinions, are supreme. All other states are spurious." Thus, Mises appears to mean that at least some "customary law" group is the appropriate state, although he also rejects the idea of ordered anarchy (1985a, p. 48).

[14] In competition between national governments, the determinant of wealth transfers is military strength. Military power can be an important discriminatory criterion in determining internal wealth transfers as well. The control of military forces by earls and barons was one of the most important considerations in early development of authoritarian law under the kingship form of government in England (Benson 1990, 1992b), and military power is still a major factor in many non-western countries (e.g., the Philippines, Nicaragua, El Salvador, Lebanon, Iraq, South Africa, Yugoslavia, etc.). The threat and use of military-like terrorism is also an important political factor, and the ability to *threaten* political disruption remains an important political consideration everywhere. Other bases for sub-groups' political power may be economic power, the number of members (perhaps because of the potential for physical force, but also because of the votes it can muster in a representative democracy), and the ability to organize and voice demands in a political arena.

[15] Indeed, under kings, a major purpose of taxes and other authoritarian developments in law was extraction of revenue to support the external function of kingship—wealth transfer through warfare. As Mises (1985a, p. 3) argues: "Foreign policy and domestic policy are closely linked together; they are but one system; they condition each other."

[16] Property rights transfers can alter the behavior of those directly impacted in ways that benefit other groups as well, so not all beneficiaries need be obvious.

[17] Recall footnote 11, and recognize that once a sub-group establishes a reputation as a political interest group intent on achieving transfers, the probability of that group's becoming an effective part of a cooperative customary law system is very

small, because the cost of rebuilding a reputation is extremely high.

[18] This kind of competition implies that resources are "wasted" in the sense that they are used up to "produce" wealth transfers rather than to produce additional wealth.

[19] Often the changes in authoritarian laws and institutions are slow, or marginal, as with customary law, but at times they can be large. Indeed, the competition for authority can turn violent, if the authority attempts to impose a relatively large transfer at the expense of a potential rival for power. Thus, both evolution and revolution shape the development of authoritarian laws (Berman 1983). But a new authority is not likely to radically change the basic institutions of the legal system. After all, those institutions developed for the purpose of transferring wealth and they can serve one authority as well as another. As Mises (1983, p. 120) explains, "the handling of the government apparatus of coercion and compulsion, must necessarily be formalistic and bureaucratic. No reform can remove the bureaucratic features . . ."

[20] There are other reasons to expect increasing numbers of rights modifications. Substantial benefits typically must be anticipated for individuals to incur initial organizational costs, but once organized, the costs of demanding more benefits are relatively low. Also, as power increases goals expand.

[21] As English Kings began to develop a role in law enforcement, they began to shift the form of "punishment" from victim restitution to a fine paid to the king. The right to restitution was one important incentive underlying the reciprocal arrangements for protection, insurance, pursuit, and adjudication. The taking of this right meant that reciprocal arrangements began to breakdown, and ultimately, kings had to create a separate hierarchical enforcement apparatus (Benson 1990, 1992b).

[22] There are at least two important consequences of such a hierarchy of delegated authority: (1) as these bureaus increase in number and/or size the ability of higher decision-making authorities to monitor their actions decreases, the power of bureaucrats grows relative to the power of those they supervise, and those they originally obtained their authority from (Mises 1983, pp. 54, 80); and (2) as their discretion increases and they grow in size they generally will demand more rights modifications to enforce (Benson 1990), thus resulting in wealth transfers to bureaucrats (i.e., larger budgets and/or more power).

[23] Police resources have been shifted to control drug crimes, for example, and property crime has been less effectively deterred so property crime has risen significantly (Benson et al. 1992).

[24] Leoni (1961, p. 17) notes that authoritarian legislation may deliberately

> or accidentally disrupt homogeneity by destroying established rules and by nullifying existing conventions and agreements that have hitherto been voluntarily accepted and kept. Even more disruptive is the fact that the very possibility of nullifying agreements and conventions through supervening legislation tends in the long run to induce people to fail to rely on any existing conventions or to keep any accepted agreements. On the other hand, the continual change of rules brought about by inflated legislation prevents it from replacing successfully and enduringly the set of nonlegislative rules (usages, conventions, agreements) that happen to be destroyed in the process.

Recall that Leoni and others (see footnote 9) view judge made law to be fundamentally different from legislation. A sharp distinction is inappropriate, however (Benson 1990). When a coercive authority's judges set a precedent, the resulting rule becomes enforceable law for *everyone* in the society whether it is a mutually beneficial law or not. And like authoritarian legislation, authoritarian precedent can make major alterations in law without the consent of all parties affected. Thus, as Mises (1983, p. 16) suggests, common law has also failed to resist the arbitrariness of centralized, bureaucratic management of legal affairs. The resulting uncertainty about the longevity of rights is a significant source of allocative inefficiency. In contrast, under customary law, an inefficient dispute settlement might arise, but if other parties recognize this the settlement does not become a universal rule of customary law. This suggests that efficient rules are relatively more likely to evolve in customary law than in authoritarian law, including judge made law.

The Protectionist Roots of Antitrust

Donald J. Boudreaux and Thomas J. DiLorenzo

I.
Introduction

Economists and legal scholars have studied the effects of antitrust policy for decades, but it is only within the past several years that the origins of antitrust have received much scholarly attention. In *The Origin of the Sherman Act* (1985) George Stigler was among the first to reexamine "the problem of why the United States introduced an affirmative competition policy." He tested an agrarian interest hypothesis—that "the Republicans passed the Sherman Act to head off the agrarian . . . movements" for price controls and other interventions—against a self-interest hypothesis that small businesses wanted a law to protect them from their larger, more efficient rivals. He found little, if any, empirical support for either hypothesis.

DiLorenzo (1985) examined the origins of the Sherman Act from a public choice or interest-group perspective and provided evidence that industries accused of being monopolized in the late 1880s were in fact dropping prices and expanding output faster than the rest of the economy. The Sherman Act might have been a political smokescreen to pave the way for the McKinley tariff, which was passed just four months after the Sherman Act and was sponsored in the U.S. Senate by Senator John Sherman himself.

In an early analysis of the origins of antitrust, Robert Bork (1966) claimed to have found evidence in the *Congressional Record* that the "legislative intent" of Congress in passing the Sherman Act was consumer protection.

The public interest interpretation of the origins of antitrust —that the law was passed as a benevolent response by Congress to a form of market failure—is by far the predominant view among economists and legal scholars. This viewpoint is so widely believed that attempts to explore the alternative, self-interest

hypothesis are sometimes met with indignation and dismissed out of hand. For example, when Robert Bradley recently (1990, p. 737) explored the self-interest hypothesis he was chastised by a referee for his "cynical explanation of the passage of the Sherman Act, a view not shared by most contemporary economists." Similar statements were once made about law and economics, public choice, and many other out-of-the-mainstream research programs.

Despite the predominance of the public-interest view of the origins of antitrust, there are reasons to be skeptical of this view. This paper reexamines the genuine roots of antitrust—the state-level antitrust laws that were enacted several years prior to the 1890 Sherman Act. In the mid 1880s, strong political movements emerged at the state level of government in favor of "anti-monopoly" legislation that eventually took the form of antitrust statutes. Although some analysts, such as Stigler (1985) and Thorelli (1955), have noted the existence of these state statutes, no one to our knowledge has thoroughly investigated the possible relation between these movements and the Sherman Act.

The Sherman Act was not enacted in a Washington, D.C. political vacuum. It emanated from the same economic and political forces that gave rise to state antitrust legislation. It is particularly relevant that in 1890 state legislatures still directly elected U.S. Senators, and that the Sherman Act was introduced in the U.S. Senate, not the House.

Section II discusses the economic and political forces at work during the emergence of state antitrust legislation in the late-nineteenth century by focussing on one state, Missouri, which was representative of the states that enacted antitrust legislation during this period. With the exception of Maine, all states that enacted antitrust statutes in 1889 were located in or near the Mississippi valley (see appendix table 1). Section III contains a summary.

II.
Interest-Group Politics and the Missouri Antitrust Law

Close study of late nineteenth-century politics in Missouri suggest that farmers there were a major special interest behind state antitrust legislation. There is evidence that farmers did indeed view large-scale enterprise as a competitive threat and sought antitrust laws to protect them from competition.

The Missouri Farm Lobby

The "Farmer's Alliance" was the most powerful political coalition in Missouri in the years preceding the enactment of the 1889 antitrust law. Democrats affiliated with the Alliance dominated the 1888 state elections. The Democrats were very farm conscious. There were farmer-lawyers, farmer-bankers, farmer-teachers, farmer-preachers, farmer-editors, and farmer-druggists. The Alliance confronted candidates for the state legislature with a card containing the following pledge: "I pledge myself to work and vote for the [Farmer's Alliance's] demands irrespective of party caucus or action" (Drew 1891, p. 303). The pledge card was widely distributed to farmers who were instructed: "If any candidate refuses to sign . . . vote against him and use your influence to elect those who sign, irrespective of party."

Of the 174 state senators and representatives, 140 signed the pledge, as did all of the congressmen-elect headed for Washington and the winners of all three statewide races in that year.

Antitrust and the Missouri Farm Lobby

One reason Missouri farmers wanted an antitrust law was that many of them were being underpriced by larger, more-efficient farms. The Farmer's Alliance repeatedly warned of the dangers of "the land concentrating in the hands of capitalists" (Clevenger 1940, chap. VI). For example, at a 1889 meeting of the National Farmers Alliance in St. Louis, a Declaration was issued that first urged "care for the widows and . . . orphans," and then called for legislation to "suppress . . . all unhealthy rivalry" (Drew 1891, p. 786). Farmers were bitter about the low and falling agricultural prices, and they blamed the trusts for the decline in their economic position. They complained of "our depressed condition" because of the fact that "the price of the farmers' grain is below the cost of production." As David D. March wrote in his *History of Missouri* (1971, p. 1169), "Just as the low price of raw cotton spurred the expansion of the Southern Alliance, so low grain prices in the late 1880s caused thousands of farmers in the wheat belt . . . to join the National Farmer's Alliance."

To the extent that agricultural prices were falling, the notion that the Missouri antitrust law enhanced consumer welfare is suspect. Missouri farmers were an appropriate special-interest group to launch an antitrust policy on grounds of self-interest if

it could be expected that an "antitrust" statute would be enforced and interpreted as an anti-*bigness* statute to protect some producers from the competition of larger and more-efficient rivals.

III.
Missouri Agriculture in the Late-Nineteenth Century: Monopoly or Competition?

If the consumer-welfare interpretation of antitrust legislation explains Missouri's experience with such laws, the following trends should be evident in the economic data on Missouri's agricultural sector for the 1870s and 1880s: (1) the real price of farm outputs should have been rising (or not falling); (2) the volume of farm outputs should have been falling (or not rising); and/or (3) the real price of farm inputs should have been rising.

However, if the real prices of farm outputs and inputs fell—and if the volume of output rose—the protests against supposed monopolization are inconsistent with what was actually happening in Missouri's agricultural economy. Indeed, if real prices decreased and outputs increased, the cries against monopolization are more plausibly interpreted as rent-seeking attempts of less-efficient producers to protect their markets from the increasing competition of more-efficient producers.

During the 1880s, cattle was Missouri's single largest agricultural output in terms of percentage of the state's agricultural gross output (Klepper 1978, p. 320). In 1889, nearly one-quarter of all agricultural output in Missouri was cattle production. Hog production was a close second, accounting for more than 20 percent of Missouri's agricultural gross product. Wheat was the state's third-largest agricultural product, representing more than 13 percent of Missouri's agricultural gross product in 1889. Cattle, hogs, and wheat together account for almost 60 percent of Missouri's total agricultural production in 1889.[1] Appendix table 2 shows the market value of Missouri-raised cattle and hogs per head from 1879 through 1891, as well as the price of wheat in Missouri for these years.

Cattle

Although a simple comparison of, say, the 1879 per-head value of Missouri cattle with the 1889 value shows a slight increase, a different and more significant picture emerges by examining the

trend of cattle values from the mid 1880s to the end of the decade. Compared to the peak value in 1884, the per-head value of cattle in Missouri in 1889 was 28.8 percent lower (and it was to fall even further by 1890). Looked at another way, the average value of cattle per head for the years 1887–89 was 18.8 percent less than was the average value per head for the years 1882–84. This decline in cattle values—which affected all the major cattle-producing states—was accompanied by a steady increase during the 1880s of the quantity of cattle entering into the gross national product. Measured in pounds of live weight, cattle supply during the 1880s increased by about 50 percent for the United States as a whole, while the price per hundredweight received by cattlemen in the United States fell from an average of $5.69 in 1880 to $3.86 in 1890—a 15 percent decrease.

This increased supply and reduced price of cattle resulted in *lower* prices of beef (and beef by products) for final consumers. According to economic historian Mary Yeager (1981, p. 70), the average price of beef tenderloins in the United States fell nearly 38 percent between 1883 and 1889.

Hogs

As with cattle, the market value of hogs in Missouri peaked in the early-to-mid 1880s. The 1889 value of a Missouri-raised hog was approximately 19 percent lower than it was six years earlier. The average value of hogs in the state for the 1887–89 period was more than 15 percent lower than it was in 1882–84.

The nationwide output of hogs and hog products increased during the 1880s while the price per hundredweight of hogs fell precipitously—from $6.07 in 1880 to $3.60 in 1890—a decrease of more than 40 percent.[2]

Wheat

The trend of prices for Missouri wheat was also downward during the 1880s, although as in much of the midwest during the late nineteenth century, wheat prices in Missouri fluctuated a good deal.[3] The 1889 price of wheat in Missouri was 34.7 percent lower than it was a decade earlier. The average price of wheat in Missouri during the 1882–84 period was 97 cents per bushel as compared to 72 per cents per bushel on average for the 1887–89 years. The latter price is almost 27 percent lower than the price of wheat earlier in the 1880s.

These data do not support the notion that Missouri agriculture was becoming monopolized during the 1880s. Moreover, it is doubtful that "predatory pricing" was taking place, for prices fell for the entire decade (and, indeed, since 1870). Predatory pricing for that length of time would be irrational.

Farm-input costs

The farm input that first comes to mind as possibly having been monopolized in the late nineteenth century is transportation by railroad. Although rail rates did fluctuate over time[4]—and varied from region to region and from shipper to shipper—there is broad agreement among economic historians that railroad rates fell dramatically during the several decades following the Civil War (North 1966, pp. 139–40). According to Stigler: "[a]verage railroad freight charges per ton mile had fallen by 1887 to 54 percent of the 1873 level, with all fines in both the eastern and western regions showing similar declines" (1885, p. 2). Henry Varnum Poor found that railroad rates fell from an average charge per ton-mile of $2.90 in 1865 to $0.63 in 1885—a rate decrease of over 78 percent.[5]

Consistent with the significant railroad-rate reduction was the equally significant increase in the quantity of rail services during the latter part of the nineteenth century. According to Poor, total ton-miles carried by U.S. railroads increased by 700 percent between 1865 and 1885 (Hilton 1966, p. 89). In Missouri, there were 4,234 miles of railroad track in 1880; by 1889 this figure increased by almost 45 percent to 6,118 miles of track (Clevenger 1940).[6] No evidence that we know of exists to support the belief that railroad rates were monopolistically high during the period leading up to the passage of antitrust legislation in Missouri.[7] All evidence points in the opposite direction.

Nor is the evidence consistent with the farmers' contention that financing costs increased during the late nineteenth century. In fact, real interest rates fell dramatically during the 1880s. In the midwest region of the country, defined to include Missouri, real interest rates on farm mortgages fell from an average of 11.41 percent in 1880 to 7.84 percent in 1889. This fall represents a 31 percent reduction in real interest rates during the 1880s.[8]

As for the prices of farm machinery, we were unable to find

specific data on farm-machinery prices in Missouri. However, Clevenger reports that, although the 1880s was a period of falling input, output, and consumer-goods prices in Missouri, downward adjustments in farm-output prices usually occurred before downward adjustments in the prices of consumer goods. But, the decreases in the prices o/f farm outputs in Missouri was generally *preceded* by decreases in the prices of farm inputs. “In terms of bushels of wheat, oats, or corn, a mowing machine, binder, or cultivator could be bought for less in 1892 than in 1882” in Missouri (Clevenger 1940, p. 46).

Clevenger’s claim that the price of farm inputs in Missouri decreased in real terms during the 1880s is consistent with the trends in farm-machinery prices for the United States as a whole during the latter part of the nineteenth century. This trend was downward during the decades following the Civil War. Towne and Rasmussen (1960) constructed an index of U.S. farm-machinery prices (in constant 1910–14 dollars) and found that this index fell from 251 in 1870 to 124 in 1880 and to 101 by 1890. This index shows that farm machinery was 2.5 times more costly in 1870 than it was in 1890.[9] There is no reason to believe that the trend of farm-machinery prices in Missouri differed significantly from the nationwide trend.

Missouri’s economy was undoubtedly becoming more and more commercialized and competitive in the post-Civil War era. The rapid economic growth of Missouri’s economy and its increasing integration with other states is reflected in the number of railroad carloads of general merchandise unloaded or loaded in St. Louis. In 1870, 20,542 cars were unloaded or loaded. By 1880 this figure had nearly quadrupled to 125,939, and by 1890 this figure had more than doubled again to 323,506 (Thelen 1986, p. 32). These data question the contention that the Missouri economy was falling into the consumer welfare-reducing grips of monopolists.[10]

In short, available data on the economic factors pertaining to Missouri’s agricultural sector in the decades leading up to the enactment of the 1889 antitrust statute contain no clear evidence of monopolization. Indeed, every sector of Missouri’s economy—especially its agricultural sector—shows signs of being highly competitive during the last three decades of the nineteenth century.

What, then, did the agrarians in Missouri have to gain from the passage of an antitrust statute? Agrarians and local merchants in Missouri (as elsewhere) correctly perceived that the

larger producers were responsible for the downward pressures on the prices of their outputs (Thelen 1986). Because economies of scale caused a decrease in the optimal number of producers of any particular commodity, the economy *looked* as if it were becoming more "monopolized." As such, in their attempts to protect their local markets from the lower-priced and/or higher-quality goods being shipped to towns and countrysides on the railroads from the increasingly centralized production locations, politically-organized agrarians complained of the evils of "monopoly." But "monopoly," as used by the agrarians, referred only to the larger and more efficient firms who were driving many small farmers and merchants out of their traditional lines of work and business.[11]

Our interpretation of anti-monopoly sentiment in Missouri as being rooted in local-producer opposition to the more intense competitive pressures resulting from "big" firms and the growing commercialization of Missouri's economy is more consistent with the data presented above than is the public-interest interpretation.[12]

However, a more complete understanding of the specific forces at work in Missouri in the late 1880s requires a discussion of the livestock and meat-packing industry. Producers in this industry played a key role in the passage of Missouri's 1889 antitrust statute.

IV.
Cattlemen, Butchers, and Other Rent Seekers

The agrarian interest group that seems to have exerted the greatest pressure for passage of Missouri's 1889 antitrust statute was comprised of cattlemen and local retail butchers who were agitated over the allegedly monopolistic practices of the "beef trust"—the centralized butchering and meat-packing firms that emerged in Chicago in the early 1880s as a result of the development of an economical refrigerated railroad car. The four largest Chicago meat packers during the 1880s were Swift, Armour, Morris, and Hammond, collectively known as "the Big Four."

Although Gustavus Swift was not the first entrepreneur to ship slaughtered cattle by refrigerated railroad car, he was the first to do so economically, shipping his first refrigerated car full of beef from Chicago to Massachusetts in the fall of 1877. The "refrigeration" of this 1877 shipment of dressed beef was little

more than open doors on a railroad car being hauled in cold weather. However, Swift saw profits in being able to slaughter meat in a centralized location served by several railroads (i.e., Chicago) and shipping it out year round to cities and towns across the country. The successful development of an economically viable refrigerated car allowed Swift to begin year-round shipments of dressed meats in 1879 (Clemens 1923, pp. 235–36).

In addition to integrating forward into wholesaling and retailing, Swift and his rival Chicago meat packers created markets for beef and hog by-products that had never before existed, thus extracting more profit from each cow or pig slaughtered than was being extracted by local butchers. When this less wasteful use of the whole cow or pig is combined with the great economies of scale that were made possible by the centralization of butchering and shipping, it is not surprising that the price of meats to consumers fell throughout the 1880s (Yeager 1981, p. 70).

The average quality of beef also improved during the 1880s. This quality improvement is closely connected with the fall in the price of cattle that occurred from the mid 1880s through the early 1890s. The fall in cattle prices, in turn, was responsible for the decline of the range-cattle industry beginning in the mid 1880s.

In the wake of the decline of the range-cattle industry there emerged, for the first time in the midwest and the west, rumors of a "beef trust." Range-cattle producers, whose product—live grass fed cattle shipped by rail to wholesale or retail butchers or sold directly to butchers in nearby towns—simply could not compete with the much less expensive and higher-quality dressed meats shipped from Chicago. Cattlemen contended that "the Big Four" meat packers were conspiring to *depress* the price of range cattle (Yeager 1981, pp. 172–73).

In May 1886 the "National Butchers' Protective Association of the United States of America" was formed in St. Louis. The goal of this organization of butchers "was to destroy the dressed meat industry, which was shipping meat from Chicago to eastern cities and selling it for less than the meat killed by local butchers" (Clemens 1923, p. 243).

The complaints of the range-cattle producers and of the local butchers prompted the first investigation of the meat-packing industry by the U.S. Congress (Clemens 1923, p. 479). Responding to these complaints, the Senate in May 1888

appointed a commission to investigate the cause for the *low* price of cattle seemingly spawned by "the Big Four."

Senator George Vest of Missouri was appointed to chair this committee.[13] From its inception to the delivery of its final report in May 1890, the Vest Committee—comprised of five midwestern and western Senators (from Illinois, Kansas, Missouri, Nebraska, and Texas)—sympathized strongly with its cattle-raising constituents. The Vest Committee concluded in its final report that "the principle cause of the *depression* in the prices paid to the cattle raiser and of the remarkable fact that the cost of beef to the consumer has not decreased *in proportion*, comes from the artificial and abnormal centralization of markets, and the absolute control by a few operators thereby made possible" (Senate Report No. 829 [commonly referred to as the Vest Report], p. vii).

The Vest Committee did not deny that the price of beef to consumers had fallen, only that this price did not fall "in proportion" to the reduction in the price of range cattle. Consumer welfare is increased, of course, when the price of a consumer good falls—especially when the quality of the good rises simultaneously—regardless of whether the price of an input fell by more or less than in proportion to the reduction of the price that the consumer must pay for the good.

The Vest Committee found no evidence of collusion by the major Chicago meat packers. Instead, the Committee *inferred* the existence of collusive action among the major packers in the buying of cattle from the fact that cattle prices fell during the mid and late 1880s. The Vest Committee reported that "Mr. P. D. Armour testifies at Washington that no such [collusive] agreement existed between himself and other packers *and we do not contradict this statement*. . . . [However] it is difficult to believe that with the most apparent motive for such action the same parties, or their subordinates with their knowledge, do not avail themselves of the opportunity presented by the centralization of markets to combine for the purpose of lowering the price of cattle" (Vest Report, p. 6; emphasis added).

Several state legislatures also attempted to take action against the "beef trust." Late in 1888, Governor Lyman Humphrey of Kansas called on the governments of the states in the Mississippi valley region to send delegates to a conference for the purpose of framing statutes that could be passed by all states in the region.[14] The ultimate goal of this conference of state legislators was uniform state statutes designed to "protect the

stock-grower and farmer against the manipulations of such alleged [beef] trust."[15] It eventually adopted a model antitrust statute to meet this goal. There was no mention during the convention or in the proposed statute of the need to protect consumers from high prices; only to protect stockgrowers and farmers from lower-priced competitors.

The model antitrust statute declared all "trusts" to be in violation of the state corporate charter. Significantly, this model antitrust statute included in its definition of a trust the ability of "a combination of capital, skill or acts by two or more persons, firms, corporations or association of persons. . . . [t]o limit or reduce the production, or increase or *reduce* the price of merchandise or commodities" (emphasis added).[16] The statute that was eventually enacted in Missouri was entitled "An Act for the punishment of pools, trusts and conspiracies." It passed by a vote of 98 to 1 in the House, and by 27 to 4 in the Senate.[17]

Missouri's legislation prohibited "restraints of trade" in the form of pooling, forming trust companies, interlocking directorates, and so on, the effects of which were "to fix or limit the amount or quantity of any article, commodity or merchandise to be manufactured, mined, produced or sold" in Missouri.

This statute also prohibited actions intended "to *limit* or fix the price" of outputs (emphasis added).[18] Although the wording of the proscription against actions intended to "limit" the price of outputs is subject to interpretation, one plausible meaning of the verb "to limit" as it is used in this statute is "to reduce" or "to keep from rising." This interpretation of the statute as prohibiting actions intended to reduce prices is consistent with (1) the downward trend of prices in Missouri during the 1870s and 1880s; and (2) the support given by Missouri's Governor Francis and by Missouri's farmer-dominated General Assembly to the St. Louis beef-trust conference of March 1889 in light of the fact that this conference adopted a model antitrust statute that explicitly prohibited price reductions.

Our interpretation of the political events in Missouri during the winter and spring of 1889 is that Missouri's agrarian-dominated General Assembly passed antitrust legislation in 1889 as part of an attempt to shield politically powerful producer groups—especially range-cattle producers and independent retail butchers—from the intense competitive pressures being exerted by the centralized, vertically integrated meat-packing firms headquartered in Chicago. (Recall that cattle was Missouri's

single largest agricultural output during the 1880s.) No evidence exists to suggest that consumers in Missouri (or anywhere else in the United States) were harmed by the so-called beef trust. In fact, as shown above, the evidence suggests just the opposite: The centralization of meat packing generated substantial benefits to consumers in the form of lower prices and higher quality meat, as well as greatly expanded use of meat by-products which, until the 1880s, were discarded as waste. However, the growth of the centralized meat packers did result in lower prices for range-cattle producers and, of course, for independent local butchers whose services ran head to head in competition with the services being performed more efficiently in the Chicago slaughtering and packing houses.

V.
Conclusions

The political and economic roots of antitrust are at the state level of government. Numerous states passed antitrust laws before the 1890 Sherman Act, itself initiated in the U.S. Senate which, at that time, was directly elected by state legislatures.

The political impetus for some kind of antitrust law came from the farm lobbies of mostly midwestern, agricultural states, such as Missouri. Rural cattlemen and butchers were especially eager to have statutes enacted that would thwart competition from the newly centralized meat processing facilities in Chicago. The evidence on price and output in these industries, moreover, does not support the conjecture that these industries suffered from a monopoly in the late nineteenth century, if monopoly is understood in the conventional neoclassical way as an organization of industry which tends to restrict output and raise prices. These industries were fiercely competitive because of relatively free entry and rapid technological advances such as refrigeration.

As Armentano (1982) has shown, for over a century the antitrust laws have routinely been used to thwart competition by providing a vehicle for uncompetitive businesses to sue their competitors for cutting prices, innovating new products and processes, and expanding output. This paper has argued that, moreover, antitrust was a protectionist institution from the very beginning; there never was a “golden age of antitrust” besieged by rampant cartelization, as the standard account of the origins of antitrust attests.

Appendix Table 1
State Antitrust Laws by Date of Passage

State	Year of Passage
Maryland	1867
Tennessee	1870
Arkansas	1876
Texas	1876
Georgia	1877
Indiana	1889
Iowa	1889
Kansas	1889
Maine	1889
Michigan	1889
Missouri	1889
Montana	1889
Nebraska	1889
North Carolina	1889
North Dakota	1889
South Dakota	1889
Washington	1889
Kentucky	1890
Louisiana	1890
Mississippi	1890
Alabama	1891
Illinois	1891
Minnesota	1891
California	1893

Source: George Stigler, "The Origin of the Sherman Act," *Journal of Legal Studies* 14 (January 1985): 1–11.

Appendix Table 2
Prices of Missouri's Three Leading Agricultural Products, 1879–1891

	Cattle (per head)	Hogs (per head)	Wheat (per bushel)
1879	$22.95	4.36	1.01
1880	$25.06	5.59	0.89

1881	$27.03	6.29	1.19
1882	$29.01	7.68	0.85
1883	$31.18	7.99	0.88
1884	$32.61	6.75	0.62
1885	$31.05	5.75	0.77
1886	$28.60	5.44	0.63
1887	$26.49	5.83	0.62
1888	$25.65	6.71	0.88
1889	$23.22	6.48	0.64
1890	$21.86	5.44	0.83
1891	$21.92	5.40	0.80

Source: Robert Klepper, *The Economic Bases for Agrarian Protest Movements in the United States, 1870–1900*. New York: Arno Press, 1978.

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[1] Missouri was the fourth largest cattle-producing state in the United States (behind Texas, Iowa, and Kansas), the nation's third largest hog-producing state (behind, Iowa and Illinois), and the nation's fifth largest wheat producer (behind California, Illinois, Indiana, and Ohio). See *Abstract of the Eleventh Census: 1890*, U.S. Bureau of the Census (Washington, D.C.: U.S. Government Printing Office, 1896), Table 4 and Table 7.

[2] The 1870 price per hundredweight of hogs in the United States was, at $6.80, even higher than it was in 1880.

[3] McGuire (1981) ranked 14 states according to the extent of variability from year-to-year in their wheat prices. Missouri is ranked eighth.

[4] Stanley Lebergott (1984, pp. 284–85) argues that the variability of rail rates during the late nineteenth century was an effect of keen competition among the railroads.

[5] Poor, quoted in Hilton (1966), pp. 89–90.

[6] Clevenger (1940) reports that in 1879 Missouri had 27 counties without railroad service, but by 1891 only 11 counties remained unserviced by the railroads.

[7] In fact, the intensity of the competition among the railroads, and the resulting continual downward trend in rail rates in the decades following the Civil War, is considered to be the reason underlying the passage of the 1887 Act to Regulate Interstate Commerce. Sponsors of this Act hoped that the Interstate Commerce Commission would effectively cartelize the railroads. See, e.g., Kolko (1963), MacAvoy (1965), and Hilton

(1966).

[8] Jeffrey G. Williamson (1974, p. 153).

[9] This index fell to 94 by 1900.

[10] Thelen, a historian who is sympathetic with populist ideals and goals, reports that "[r]ailroads transformed the size and shape of [Missouri's] market economy, forcing businessmen and farmers to produce at unprecedented rates to survive the new competition" (p. 32).

[11] Our interpretation of the anti-monopoly protests of the late nineteenth century is, of course, not novel. For example, Dudden, argues that "in the United States by the middle of the nineteenth century, monopoly was generally deplored as *hampering opportunity*. . . . [T]he anti-monopoly spirit of the Guilded Age took shape as a widespread but essentially middle-class protest against the *centralizing* tendencies in transportation, land tenure, business, and industry, which characterized the period" (1957, p. 588; emphasis added).

[12] For further evidence in support of our interpretation of the political motivation behind antitrust legislation in the case of Missouri in particular, see Clevenger (1940), Piott (1985) and Thelen (1986). Dudden (1957), Wiebe (1967), Mayhew (1972), and McDonald (1974) are only a handful of the historians who interpret nineteenth century agrarian political protests—including the agrarians' ubiquitous calls for antimonopoly legislation—as an attempt to stave off the increasing commercialization of their occupations and lives.

[13] The Vest Committee began its hearing in St. Louis in November of 1888, "this place being chosen because the International Cattle Range Association and the Butchers' National Protective Association were in session there" (Clemens 1923, p. 749).

[14] Piott (1985, p. 26).

[15] *Journal of the Senate of Missouri*, 35th General Assembly, 1889, p. 165. The entire text of this joint resolution of the Kansas Senate and House calling for a conference of midwestern state legislators, as well as Missouri Governor Francis's message to the Missouri General Assembly, can be obtained from the authors upon request.

[16] Ibid., p. 407. On the prevalent nineteenth century view that the proper and legal means for controlling the size and manufacturing activities of corporations was the state corporate charter, see McCurdy (1979).

[17] *Journal of the House of Missouri*, 35th General Assembly,

1889, pp. 952–53, and *Journal of the Senate of Missouri*, 35th General Assembly, 1889, pp. 410–11.

[18] *Laws of Missouri*, 35th General Assembly, 1889 (Jefferson City, Missouri, 1889), pp. 96–97; emphasis added.

Toward a Deconstruction of Utility and Welfare Economics

David Gordon

Welfare Economics and Externalities in an Open-Ended Universe: A Modern Austrian Perspective. By Roy E. Cordato. Boston: Kluwer Academic Publishers, 1992.

Roy Cordato's ambitious and well-organized book addresses a central problem in economics. Standard neoclassical analysis finds fault with the unhampered free market, on a ground that Austrian economists resolutely reject. People's activities in a free market, it is claimed, may impose benefits or harms on others in a way that their decisions on production fail accurately to reflect. Some economists (the "Pigouvians") look to government to remedy these inefficiencies, termed "externalities." Others, the "Coaseans," call for much less intervention, but they too accept the underlying analysis.

Cordato, firmly in the Austrian camp, begins with a summary of the reasons Austrians dissent from the neoclassical view of externalities. His aims go far beyond this, however; he presents an alternative Austrian conception of efficiency, which he calls "catallactic efficiency."

Cordato starts with a short account of the neo-classical position and at once proceeds to the Austrian critique of that view. As he rightly notes "[t]he optimal solution [of the standard approach] is given by the price and output that is obtained under conditions that would exist in a perfectly competitive general equilibrium (PCGE) . . . This result is shown to be Pareto optimal, i.e., no one can be made better off without making someone else worse off, and social efficiency is maximized. Externalities result in a deviation from the standard" (p. 2).[1]

Much of Cordato's criticism of this position follows familiar lines. As he notes, constantly changing conditions rule out the use of a static PCGE as a welfare ideal (pp. 4–5). Further, no central authority could gather together the immense body of data

required to calculate the PCGE solution (p. 8). But in the course of his comments, Cordato makes an astonishing statement: “In order to implement Pareto optimality as a welfare criteria [sic], an analyst must make both interpersonal and intertemporal comparisons of utility” (p. 6).

This is an elementary error. As Cordato has himself noted, a situation in which an externality is present is not Pareto optimal. If so, a Pareto superior move may be made: since this, by definition, makes no one worse off, no interpersonal comparison of utility is required.

Perhaps Cordato has been misled on the issue by the fact that Pigou himself accepted interpersonal utility comparisons, at least for practical purposes. He believed, e.g., that “it is evident that any transference of wealth from a relatively rich man to a relatively poor man of similar temperament, since it enables more intense wants to be satisfied at the expense of less intense wants, must increase the aggregate sum of satisfaction.”[2] Were Cordato commenting on this, he would of course be right to object. But Pigouvian subsidies and taxes, despite their name, involve no interpersonal utility comparisons.

Or have I interpreted Cordato uncharitably? His statement begins, “In order to *implement* Pareto optimality . . .” (p. 6, emphasis added.) His claim may be, then, not that the theoretical model requires interpersonal comparisons, but rather that the attempt to put the model into practice does so. But if this is his meaning, it is once more unclear why he holds it. Or does he in fact adopt a yet more attenuated view? Perhaps by “interpersonal comparison” all he intends is that implementation of the model requires that people’s utility functions be known to the policymaker. This, however, is not what the expression “interpersonal comparison of utility” normally means. I hope that on a future occasion Professor Cordato will clarify his unusual remarks.

An argument that Cordato takes over from O’Driscoll and Rizzo also seems to be incorrect. “With respect to externalities, in order for the standard tax or subsidy solution to work, the analyst must have better information concerning market conditions than is actually being generated in the markets themselves. If this were possible, the actual markets, and in particular the exchange relationships that comprise them, would not be needed” (p. 3).

I entirely agree that no planner can acquire the requisite information, but why need the market to be superfluous if

someone could discover all the optimal conditions? What if the optimal conditions can be put into practice only through a market, regardless of whether someone knows them through other means? If so, the market is still needed and O'Driscoll's and Rizzo's argument fails. To make their case, they must show that if the optimal conditions were known, they could be put into practice without a market.

After disposing of the standard view, Cordato next summarizes the Austrian approach to externalities. He very usefully contrasts the position of Mises and Rothbard, on the one hand, with that of Hayek on the other. Mises and Rothbard distinguish sharply between positive and negative externalities. The former (Mises's Type 1 externalities) presents no problem at all: since these authors do not adopt the PCGE as a welfare standard, it is irrelevant to them whether these externalities are generated in an "optimal" amount. Negative externalities (Mises's Type 2) are a problem only if property rights have not been exactly defined. Given a precise delineation of property rights, no external standard may properly be used to challenge the outcome of the free market.

Cordato's discussion of Mises's and Rothbard's views on externalities is largely accurate and well put, but he is badly amiss on one issue. He correctly notes that Mises displays more sympathy than Rothbard for patents (p. 21), but he unaccountably suggests that Rothbard opposes copyright as well. "From his [Rothbard's] perspective, intellectual property rights cannot be derived from principles of natural law and therefore the state has no moral 'right' to impose these through the institution of patent and copyright laws" (p. 22; see also p. 80).

In support of his claim, Cordato quotes a passage from Rothbard condemning patents. Why does Cordato feel free to extend Rothbard's criticism, on Rothbard's behalf, to copyright? Perhaps Cordato assumes that patents and copyrights must be dealt with identically; if Rothbard denounces patents, his remarks apply equally to copyright.

Rothbard's actual position, many times expressed, differs entirely from Cordato's summary of it. Rothbard states: "Yet this bracketing of patents and copyrights is wholly fallacious; the two are completely different in relation to the free market . . . On the free market, there would therefore be no such thing as patents. There would, however, be copyright for every inventor or creator who made use of it, and this copyright would be *perpetual* . . ."[3]

Although most economists group Hayek and Mises together, Cordato rightly points out that they differ on externalities. Hayek did not adopt Mises's position but instead adhered to the "standard" view of both positive and negative externalities.

Hayek's position is not to Cordato's liking, and he endeavors to show that Hayek's adoption of it leads him to self-contradiction. Cordato locates a passage from Hayek critical of welfare economics and pounces on the apparent incongruity. "On the one hand he rejects the welfare standard used in neoclassical externalities analysis but embraces much of the analysis that is derived from it. His assessment of welfare economics leaves little room for the policy prescriptions that he suggests are appropriate" (p. 25).

Cordato's criticism of Hayek misfires, since it rests on the mistake already discussed. In the passage Cordato cites, Hayek criticizes "the whole of the so-called 'welfare economics', which pretends to base its arguments on the interpersonal comparisons of ascertainable utilities . . ." (p. 29). Hayek contradicts himself only if the standard analysis of externalities involves interpersonal comparisons of utility. It is Cordato, not Hayek, who errs in thinking that it does.

Hayek's target becomes ever clearer if one looks at his remarks just before the passage Cordato quotes: "The childish attempts to provide a basis for 'just' action by measuring the relative utilities or satisfaction of different persons simply cannot be taken seriously. . . . But most economists seem to begin to see that the whole of the so-called 'welfare economics' . . . [here follows the passage Cordato quotes, as cited in the preceding paragraph]."[4] Since most economists do *not* reject the standard analysis of externalities, it is apparent that Hayek's attack is directed elsewhere.

Cordato now prepares the way for his principal task, the construction of an Austrian welfare standard. He does so by an assessment of two earlier proposals of an Austrian standard, one by Murray Rothbard and the other by Israel Kirzner.

Rothbard's proposal has the virtue of simplicity. Economists in his view cannot exceed the bounds of demonstrated preference when they analyze choices on the market. An economist cannot legitimately speak of hypothetical preferences—what people would have chosen in situations other than the actual world; the assessment of choice apart from action depends upon conjectures inadmissible into praxeology. Given this restriction, the welfare criterion at once follows. People who engage in an exchange in

the free market do so because they expect to benefit. Every free exchange, then, increases utility *ex ante*—and this is all the economist may properly identify as a rise in social welfare: "the rest is silence."

Cordato rejects Rothbard's short and sure treatment of welfare economics. "Rothbard's conclusions concerning welfare and social utility can be taken to task on several crucial points" (p. 41). First, "Rothbard does not allow for any consideration of harm that is not demonstrated, i.e., psychic harm. The welfare effects of envy, trauma, etc. are ruled out of his model" (pp. 42–43). Contrary to Rothbard's view, one cannot avoid interpersonal comparisons of utility when one assesses social utility. The effects of an exchange cannot be confined to the exchangers: one needs to ask how others benefit or lose, a fact Rothbard himself seems elsewhere to recognize.

"But there are even more damaging criticisms to be made of Rothbard's approach" (p. 43). Cost, as Austrians conceive of it, is subjective: the cost of an action is the highest ranking alternative foregone. "By definition costs cannot be demonstrated. Therefore, in Rothbard's model only benefits, that is, utility gains, are recognized." Further, Rothbard errs by considering only *ex ante* utility. People often regret the choices they have made: "Rothbard's welfare economics . . . ignores the fact that preferences are expressed sequentially through time, as part of a general set of goal oriented activities" (p. 43).

Cordato's final verdict on Rothbard's criterion is a severe one: "Rothbard's welfare economics does not offer much promise as a general guide for externalities theory or policy" (p. 44). Before moving with our author to the Kirznerian climes he finds more congenial, let us pause to evaluate Cordato's assault.

Cordato's misses completely the point of Rothbard's article. The piece in question, a veritable *tour de force*, attempts to overturn the conclusions of mainstream welfare economics. In the standard view, economists can neither make interpersonal comparisons of utility nor introduce controversial normative premises into their analyses. Given these restrictions, many practitioners of welfare economics still endeavor to find imperfections in the free market. Rothbard convincingly shows that these attempts end in failure. This, however, does not entail the collapse of welfare economics: given the restrictions under which economic science operates, one can arrive at a welfare economics that supports the free market.

Crucial to understanding the article is, to reiterate, a simple

point. Rothbard is offering an internal criticism of welfare economics, not a complete presentation of his own views on social philosophy. A brief glance at the article suffices to show this. He remarks, e.g.: "The fact that the free market maximizes social utility, or that state action cannot be considered voluntary . . . in itself implies no plea for *laissez faire* or for any other social system. What welfare economics does is to present these conclusions to the framer of ethical judgments as part of the data for his ethical system."[5]

If the limited intent of Rothbard's welfare criterion is borne in mind, Cordato's criticisms of it fall to the ground. Thus, it is quite true, as Cordato says, that the criterion takes no account of effects of exchanges on third parties or of utility *ex post*. It is entirely in order for Cordato to argue that, from the point of view of a complete social philosophy, these need to be considered. But, it does not follow that the economist, speaking in his professional capacity, can deal with them. Rothbard contends that the economist cannot do so: demonstrated preference forbids it.

He notes, e.g., about the envious: "We are not interested in his opinion about the exchanges made by *others*, since his preferences are not demonstrated through action and are therefore irrelevant."[6] In saying this, Rothbard begs no questions: he would do so only if he concluded that, because a matter is irrelevant to the economist, it is of no importance to the social philosopher. And of course he does not do so. If he wishes to overthrow Rothbard's criterion, Cordato must either arrive at a scientifically acceptable notion of preference to replace demonstrated preference, or else deny that demonstrated preference involves the limitations Rothbard draws from it. Cordato might also claim that given its limitations, Rothbard's criterion has little importance; but this again is a philosophical point that leaves the criterion untouched within economics.

The fundamental flaw of Cordato's criticism is his failure to heed the sage advice of R. G. Collingwood: "I began by observing that you cannot find out what a man means by simply studying his spoken or written statements . . . In order to find out his meaning you must also know what the question was . . . to which the thing he has said or written was meant as an answer."[7]

Beyond this general failing, one of Cordato's points misfires on its own terms. He has rightly noted that an actor's opportunity cost cannot be demonstrated in action. But it does not follow from this that "in Rothbard's model only benefits, that

is utility gains, are *recognized*" (p. 43, emphasis added). No one but the actor himself can specify his opportunity cost: but to take account of cost does not require this knowledge. Whatever the cost, we know that, *ex ante*, the expected gains exceed it. This is precisely the recognition of cost.

But this response leads Cordato to a related criticism. Is not Rothbard's point trivially true? "By definition, though, people always expect to benefit, relative to the alternatives, from every action that is undertaken. This is true under any institutional arrangement. An action taken at the point of a gun is expected to result in an increase in utility relative to the available alternatives" (p. 43). True enough; but has Cordato forgotten that two pages earlier, he had pointed out that Rothbard's criterion depends on the definition of a voluntary act? As he there rightly remarked, Rothbard's approach to coercion is clear from his other writings (p. 41). Is it too much to ask Cordato to bear in mind his own statements? Once one offers a definition of "voluntary," it is not at all trivial to say that voluntary actors expect to raise their utility, relatively to their baseline. No doubt the victim of a threat endeavors to maximize his utility "relative to the alternatives." But he hardly can anticipate a rise in utility relative to his starting point.[8]

One more issue and then we can have done with this unfortunate section of the book. Although it is true that Rothbard's welfare criterion does not take account of *ex post* utility, Rothbard does have something to say about it. He contends that the free market tends to maximize *ex post* utility; "in sum, the free market always benefits every participant, and it maximizes social utility *ex ante*; it also tends to be so *ex post*, since it works for the rapid conversion of anticipations into realizations."[9] Adhering strictly to demonstrated preference, Rothbard cannot prove the latter contention; but he is free to argue in a common sense way about tendencies.

Cordato's comments on Kirzner's view of efficiency are best taken together with his presentation of his own notion of "catallactic efficiency." He begins, reasonably enough, by setting forward some requirements for a sound Austrian concept of efficiency. But two of these requirements will make any alert reader gasp in amazement: "any analysis of people's preferences must be based on a recognition and acceptance of the guiding principle behind Rothbard's theory of social utility, revealed or 'demonstrated' preference . . . preferences can only be deduced by observing activities. Furthermore, since states of knowledge

can and do change with the passage of time, preferences that are revealed at a point in time cannot be assumed to remain constant over time. Again, this is an important part of Rothbard's analysis that can and should be used as a building block for the theory presented here" (p. 59).

I have no quarrel with these requirements—quite the contrary. But Cordato has here taken for his own exactly the doctrines of Rothbard that he earlier condemned. Cordato, it will be recalled, criticized Rothbard's use of demonstrated preference because it led to the neglect of effects on third parties. He rose in protest against Rothbard's failure to consider plans carried out over time. Now, demonstrated preference, exactly as Rothbard uses it, has become a requirement. Apparently, a radical conversion has taken place somewhere on the road between the end of chapter 2 and the onset of Chapter 3. "The stone that the builders rejected has become the chief cornerstone of the temple."

But enough of preliminary: what exactly is Cordato's catallactic efficiency? To understand it, we must return to Chapter 2 and Israel Kirzner. In a section of his early book *Market Theory and the Price System* (1963), Kirzner suggested a criterion of efficiency that rested on the coordination of the plans of market participants. Coordination of plans depends on knowledge; therefore "Kirzner reasons that an economic system can be judged efficient to the extent that it generates knowledge of mutually beneficial exchange possibilities" (p. 47).

Cordato has been greatly influenced by Kirzner's analysis; and his own criterion, as we shall see, bears more than a passing resemblance to Kirzner's prescriptions. But in Kirzner's argument, Cordato finds a crucial flaw. Following Jack High, he points out that an increase in information need not result in the coordination of plans. An entrepreneur, taking advantage of new information, may drive his rivals out of business. By doing so, he upsets their plans as well as those of their customers (p. 52).

If coordination of plans is not the key to the mystery, what can replace it? Catallactic efficiency, Cordato tells us. In this view, the efficiency of a catallaxy "is to be judged by the extent to which the catallaxy encourages individuals existing in a social context to pursue their own goals as consistently as possible" (p. 62). What institutional setting will best promote this end?

Since "without access to physical resources all the knowledge in the world would be useless" (p. 63), a stable system of property rights must be established. In it, each person

will know what resources he may use in his plans. “In a social setting, where different individuals are pursuing different ends, efficient resource use can only occur when conflicts in the use of resources are minimized” (p. 63).

But if knowledge without property is empty, property without knowledge is blind. Individuals’ pursuit of goals depends on the acquisition of knowledge about favorable opportunities for exchange. Here once more a stable system of private property is vital. In it, entrepreneurs will have a financial incentive to bring new information to light through the exploitation of discrepancies in prices (p. 63). Cordato’s catallactic efficiency, then, recommends exactly the same institutional setting as does Kirzner: one of private property, in which individuals may use their resources to pursue their own ends, so long as they do not invade the property rights of others (p. 66). This system Cordato terms the Ideal Institutional Setting (IIS).

I entirely agree with Cordato that a system of private property is desirable. With the rationale he advances for the IIS, I am much less satisfied. No doubt each person wishes, other things being equal, to acquire information about profitable exchanges. But it is very far from the case that each individual benefits from the general dissemination of information. This should come as no surprise to Cordato, since he makes this point himself in his discussion of discoordination. (Has he had another memory lapse between Chapter 2 and 3?) Surely if someone’s gain in information enables him to overthrow my business, I have not benefited through the spread of more information.

And the point is of much wider application than to the discoordination effects that High and Cordato cite. Consumers may be affected adversely by the spread of information in other ways than through the misfortunes of displaced entrepreneurs. It hardly helps me if others discover my favorite restaurant and crowd me out or if someone else locates the bargain antique I wished to purchase.

If it need not be the case that each individual benefits from an increase in information, why should the maximum spread of information be taken as a criterion of welfare? Whose welfare is advanced by it? Perhaps the contention is that under a system in which the spread of information is maximized, each individual will gain more from knowledge of advantageous exchanges than he will lose through the acquisition of information by rivals. But why believe this? No reason has been given to accept it. And to justify the criterion, one needs to add that the net gain to each

individual exceeds that of any other workable system. Or should it be the probability of net gain to each individual that is maximized?

Some of the problems of catallactic efficiency stem from one of Cordato's insights. As discussed earlier, he correctly argues against Kirzner that the increase of information need not lead to plan coordination. But, while dropping Kirzner's reason for using the growth of information as a welfare ideal, he retains the standard. "This [Cordato's] view of catallactic efficiency is, in a fundamental sense, Kirzner's standard of welfare economics without invoking interpersonal plan coordination as the normative goal" (p. 70). It is indeed; but, absent Kirzner's justification, he needs to provide some other reason that the general spread of information is to the advantage of each market participant, or at least to no one's disadvantage. Incidentally, even if Kirzner were right that increased information always leads to plan coordination, he would still not have justified his criterion. What if someone lost more by the general coordination of plans than he gained through the coordination of his plans with others? Some people may lose out by the end of a chaotic state of affairs. Why should they support Kirzner's criterion?

But Cordato has another reason besides the spread of information to support catallactic efficiency. Whatever the benefits of maximizing the growth of information, do not the manifest advantages of lack of conflict in the use of resources justify the stable system of property rights of the IIS?

I fear that I must once again dissent. First, in many other systems than the free market, people know what resources are available to them. Suppose, e.g., that the state takes 80 percent of the income of anyone who earns $5,000 or more. Someone who earns $20,000 will know exactly what resources are available to him. Further, while it is surely desirable, for the reasons Cordato states, to know what resources one may use, must this knowledge not be weighed against other goods? Imagine one had a choice between the tax system just described and one in which the government randomly decided each year on a tax rate between 1 percent and 10 percent. Would the former system be preferable, simply because in it one knew exactly the resources that would be available?[10]

Again, granted that each person prefers, other things being equal, that he know the resources he may without conflict use, why is it to each person's advantage that everyone have stable property rights? Perhaps some would benefit from instability in

the property rights of their rivals.

One might object in this way to the line of criticism against catallactic efficiency that I have been pursuing. Why does Cordato need to show that the spread of information and a stable set of property rights are to the advantage of each person? Why is it not sufficient that the IIS benefit most people? Here one needs to recall the purpose of a criterion of welfare within economics. Since economics is a value-free science, the criterion must appeal only to non-controversial normative principles (if, indeed, there are such). Otherwise, one is straightaway in the midst of philosophy. It is for exactly this reason that both the neoclassical and Rothbard use the Unanimity Principle in their respective criteria. As Rothbard puts the point: "Generally, even the most rigorously *Wertfrei* economists have been willing to allow themselves one ethical judgment; they feel free to recommend any change or process that increases social utility under the Unanimity Rule"[11] (Cordato apparently agrees that economics is value free; see p. 90, n. 13).

It may well be that the Unanimity Rule is not so free from controversy as its advocates imagine. But no principle more controversial than it can be used in scientific economics. If, then, Cordato rejects my criticisms on the ground that his criterion need not follow the Unanimity Rule, he confronts a daunting task: he must produce some other normative rule, equally uncontroversial, which supports his criterion. I wish him well in the attempt to do so.

Catallactic efficiency faces yet another difficulty; the problem, however, is not intrinsic to the idea but arises from an earlier section of *Welfare Economics and Externalities*. Before presenting his criterion, Cordato set forward various requirements for an acceptable standard, among them demonstrated preference. He agreed with Rothbard that one cannot assume that people's preferences are consistent over time.

How does catallactic efficiency stand up, measured by Cordato's own requirements? The question answers itself. To say that someone will better fulfill his preferences given more information or a stable system of property rights seems *prima facie* to require reference to more than the preferences he indicates by his action at a particular time. To assess Cordato's criterion, one needs to use judgments of this kind: "If A had known *a, b*, and c, he would have chosen *x* instead of *y*, raising his level of utility." How can one show, adhering strictly to demonstrated preference, that someone benefits from an increase

in information? And even more obviously, increased information and stable property rights are in part desirable because they help people carry out their plans over time, as Cordato himself mentions (p. 61). But to take account of this contradicts his stipulation that preferences not be assumed consistent over time.

The situation then is this. Cordato in Chapter 2 criticized Rothbard's welfare criterion. In Chapter 3, he advanced as requirements for a criterion exactly the features that led to his criticisms of Rothbard in the previous chapter. And when he at last presents his own criterion, it turns out to fail these requirements. Cordato's inability to pursue a consistent line of argument brings to mind Samuel Johnson's observation on conversation with the Highlanders: "the inquirer is kept in continual suspense, and by a kind of intellectual retrogradation, knows less as he hears more."[12]

After presenting his criterion, Cordato discusses its application to externalities and to tort liability. On the whole, his treatment is insightful: he in particular makes valuable criticisms of the Coasean approach to externalities (pp. 92ff). Rather than discuss his analysis in detail in an already long review, I shall select for discussion a few points in his torts liability chapter.

He draws a valuable contrast between the Coasean approach to externalities (particularly as Richard Posner applies it) and his own catallactic efficiency view. Confronted with a legal case in which positive transactions costs prevent the parties concerned from bargaining their way to a solution, "the task of the [Posnerian] judge is to decide *who should* have the property rights, not *who does* have the property rights" (p. 100). The catallactic efficiency position takes just the reverse stand: property rights cannot be taken away by the judge's belief that someone other than the owner will use the disputed property more "efficiently."

Cordato's conclusion is entirely commendable, but a few details arouse misgiving. For one thing, he claims "[T]he theory presented here leads to a non-Pigouvian efficiency defense of strict liability" (p. 100). While I share Cordato's admiration for the work of Richard Epstein on strict liability, I cannot find any argument in the book defending strict liability. Cordato has argued that tort cases should be settled by reference to property titles, rather than on grounds of economic efficiency; but this by itself does not entail strict liability. Epstein succinctly characterizes strict liability in this way: "[the theory] holds the defendant *prima facie* liable whether or not either of the two

further conditions relating to negligence and intent is satisfied."[13]

Suppose one agrees with Cordato that judges should decide tort cases on the basis of property rights. How does this by itself settle whether intent or negligence should play a role in assessing damages? Of course, Cordato is right that to use an economic standard as the exclusive criterion of decision is inconsistent with strict liability, and he has criticized doing so. But this is the sum and substance of his "argument" for strict liability.

Cordato rightly points out that the Coasean framework rejects causation; and his instincts are sound in combatting this. But his execution is faulty. He endorses an analysis of causality which he claims his view of strict liability supports. "The notion of strict liability that is derived from that [Austrian] view of property rights casts up a 'but for' test of causality that subverts these conceptual ambiguities. Causality is established, at least *prima facie*, if, but for the fact that the plaintiff (*P*) invaded the property rights of the defendant (*D*), the harm would not have occurred" (p. 102).

He presents on the same page an objection to the "but for" analysis of causation that so far as I can see is perfectly correct. In essence, the objection is this; any necessary condition of an event fulfills the "but for" requirement. If a violation of rights would not have happened "but for" someone's invasion, it would also not have happened "but for" the fact that the property was there. This objection, it should be clear, if correct overthrows neither causation nor strict liability. It is an objection to one particular conception of causality.

Cordato's reply to this objection is: "it is as if all property lines had been erased, or never existed" (p. 102). Not at all! The objection has nothing to do with property rights. Far from responding adequately to the objection, Cordato appears not to have understood it.

As to Cordato's claim that strict liability leads to 'but for' causation, let us hope it is false. Otherwise, one would have an excellent argument against strict liability. Perhaps Cordato, rightly thinking that strict liability requires acceptance of causation, believes that this is why he must accept 'but for' causation. This line of thought would work—but for the existence of other conceptions of causation.

Epstein's view of the issue differs from that of our author. He states: "Its affinity for absurd hypotheticals should suggest that the 'but for' test . . . be abandoned as even a tentative

account of the concept of causation."[14] Epstein's analysis of causation depends on certain paradigms, not 'but for'. After presenting one of these paradigms, "*A* hit *B*," he remarks: "No question of 'but for' is ever raised, much less answered."[15] Is Epstein wrong about the implications of strict liability for causation? If so, one would like to know why.

Professor Cordato has obviously read very widely in the literature, and he has the ability to present the essence of a theory simply and clearly. But his many mistakes and inconsistencies, along with the failure of his catallactic efficiency standard, make his book largely a missed opportunity. Rigor in argument cannot be abandoned—even if we inhabit an "open-ended universe."

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[1] On p. 2, line 10, "pecuniary" should read "non-pecuniary."

[2] A. C. Pigou, *The Economics of Welfare*. 4th ed. (London: Macmillan, 1932), p. 89.

[3] Murray N. Rothbard, *Man, Economy, and State* (Princeton: D. Van Nostrand, 1962) II, pp. 653, 656.

[4] F. A. Hayek, *Law, Legislation, and Liberty*, vol. 3: *The Political Order of a Free People* (London: Routledge and Kegan Paul, 1979), p. 201.

[5] Murray N. Rothbard, "Toward a Reconstruction of Utility and Welfare Economics" in Mary Sennholz, ed. *On Freedom and Free Enterprise: Essays in Honor of Ludwig von Mises* (Princeton: D. Van Nostrand, 1956), pp. 261–62. The printing of the essay cited here differs from that used by Cordato, so the pagination does not correspond to his citations.

[6] Ibid., p. 250.

[7] R. G. Collingwood, *An Autobiography* (Oxford: Oxford University Press, 1939), p. 31.

[8] I sidestep complications in setting the baseline, arising e.g., from so-called "nonproductive" exchanges.

[9] Murray N. Rothbard, *Power and Market* (Menlo Park, Calif.: Institute for Humane Studies, 1978) p. 10.

[10] It might be objected to the example that in the second case, one always knows one will retain at least 90 percent of

one's income: therefore, this is preferable, both on grounds of stability and control of resources, to the 80 percent tax. Although I think this response changes the criterion at issue—stability—to a combination of stability and amount of resources under one's control, the example can be modified to accommodate those who find this response persuasive. Suppose that in the latter system, there is a 1 percent chance that the state will tax 81 percent of total income and a 99 percent chance it will randomly select a tax of 1 to 10 percent. Which system is preferable?

[11] Rothbard, "Toward a Reconstruction," p. 20.

[12] Samuel Johnson, *A Journey to the Western Islands of Scotland*, R. W. Chapman, ed. (Oxford: Oxford University Press, 1970), p. 45.

[13] Richard A. Epstein, *A Theory of Strict Liability* (San Francisco: Cato Institute, 1980), p. 5.

[14] Ibid., p. 16.

[15] Ibid., p. 24.

Mises and Hayek Dehomogenized

Joseph T. Salerno

A Man of Principle: Essays in Honor of Hans F. Sennholz. John W. Robbins and Mark Spangler, eds. Grove City, Pennsylvania: Grove City College Press, 1992.

An important contributing factor to the resurgence of Austrian economics in the 1970s was the appearance of a handful of articles which drew the attention of the economics profession to the distinctiveness of the tradition of economic theorizing founded by Carl Menger.[1] Arguably the most influential of these articles was written by the eminent Walras scholar, William Jaffé, and entitled "Menger, Jevons and Walras Dehomogenized."[2] In this article, Jaffé argued persuasively that the three founders of marginalism, whose contributions up to that point had tended to be conflated due to an exclusive focus on their contemporaneous discoveries of the marginal principle, each initiated a separate and distinct tradition of economic method and analysis. Taken in conjunction with the 1974 award to F. A. Hayek of the Nobel Prize in Economics and the scholarly conferences on Austrian economics held annually between 1974 and 1976, this article and the others mentioned above broadened and reinforced recognition of and interest in contemporary Austrian economics as an alternative to the prevailing neoclassical paradigm.

But the Mengerian tradition was developed in very different directions by his brilliant followers, Eugen von Böhm-Bawerk and Friedrich von Wieser, and by their own students and followers. Without tracing out this doctrinal development in any detail, suffice it to say that today the term "Austrian economics" is used to designate two very different paradigms. One derives from Wieser and may be termed the "Hayekian" paradigm, because it represents an elaboration and systematization of the views held by F. A. Hayek, a student of Wieser's at the University

of Vienna. Although it is yet to be generally recognized by Austrians, Wieser's influence on Hayek was considerable and is especially revealed in the latter's early work on imputation theory, which sought to vindicate the Wieserian (as against the Böhm-Bawerkian-Misesian) position that the imputation problem must be solved within the context of an exchangeless economy subject to the control of a single will yet somehow able to calculate using (subjective) value as the "arithmetic form of utility."[3] The Hayekian paradigm stresses the fragmentation of knowledge and its dispersion among the multitude of individual consumers and producers as the primary problem of social and economic cooperation and views the market's price system as the means by which such dispersed knowledge is ferreted out and communicated to the relevant decision-makers in the production process.[4]

The other paradigm is the "Misesian" paradigm, so called because Ludwig von Mises was the first to systematically expound it. This paradigm represents a development of Böhm-Bawerk's thought and focuses on monetary calculation using actual market prices as the necessary precondition for the rational allocation of resources within an economic system featuring specialization and division of labor.[5]

Unfortunately, the majority of those who currently regard themselves as "Austrian economists" have failed to recognize the considerable differences between these two paradigms. And because Mises was the main influence on Hayek's early writings on business cycle theory and on socialist calculation, the most important manifestation of this failure is the tendency to attribute to Mises positions originated by Hayek or independently developed by those working within the Hayekian paradigm. This tendency is reinforced by what may be called the "Whig presumption," still inexplicably prevailing among many Austrians despite the publication of Thomas Kuhn's book three decades ago, that since Hayek "came after" Mises he must have incorporated in his own work all that was worthwhile in his predecessor's.[6] The result is that attention has been deflected from the Misesian paradigm, and those seeking to deepen and extend it have found it increasingly difficult to gain recognition for their own efforts or to channel the interests and efforts of younger Austrian scholars into the same endeavor. There thus currently exists a pressing need, especially for Misesians, to undertake the task of a courageous and thoroughgoing doctrinal dehomogenization of Hayek and Mises.

Evidence of this need is presented in some of the contributions to this Festschrift honoring Hans Sennholz—ironically, a student of Mises's whose writings on most topics fall squarely within the Misesian paradigm. While this volume contains many informative, instructive, or inspiring papers by individuals who have been associated with Dr. Sennholz in various capacities or who have been profoundly influenced by his prodigious and insightful writings on a broad range of politico-economic subjects, I am mainly interested in a handful of contributions from academic Austrian economists. Rather than offering a critical analysis of these papers, I will restrict myself to demonstrating that, in each case, the author imputes to Mises implicit or explicit support for or authorship of one or more positions originated by Hayek or rooted in a Hayekian view of the market's pricing process.

Let me begin with Israel M. Kirzner's contribution on "Human Action, Freedom and Economic Science" (pp. 241–49), which deals with the evolution of his own understanding of the Misesian concept of human action from the publication of his first book in 1960[7] to 1991, the year the essay under review was completed. In this essay, Kirzner explicitly repudiates the position he took in the concluding chapter of his 1960 book that the defining element of human action is "purposefulness" narrowly construed as expressed in economizing and choice and that the entire structure of Misesian economics, including its adumbration of the dynamic market process, can be logically deduced from insight into the "power of reason to guide purposeful behavior" (p. 244). Now, Kirzner informs us, he has come to realize that his earlier understanding of Mises's position is "inadequate," because it can only yield conclusions about "decisions made in given situations" and is thus incapable of analyzing "those systematic market processes which are so central to Misesian economics" (p. 244).

While Kirzner still ascribes a central role to the concept of purposefulness in his reinterpretation of Mises, it is a concept purged of explicit reference to economizing and choice and completely redefined in terms of alertness and discovery. Thus for Kirzner, "the purposefulness of human action . . . is the essential key to the discovery by agents that they are in fact *not* in the 'given situations' which they had hitherto assumed to be relevant," and it is the "purposefulness which defines and identifies conscious human action" that motivates "alertness to the dynamic world in which we live" (pp. 245, 247). These

essential attributes of purposefulness are summed up elsewhere by Kirzner in the statement that "purposive human action involves a posture of alertness toward the discovery of as yet *unperceived* opportunities and their exploitation."[8] To be sure, in proposing this definition, it is not Kirzner's intention to completely ignore the aspect of purposefulness that is expressed in human choice.[9] However, he offers no argument establishing a logical link between these two aspects of purposefulness and merely asserts a predominating "propensity," inherent in human action, "to sniff out opportunities lurking around the corner," "to discover what is useful," "to be alert to opportunities," "to notice what may be useful," etc. By this procedure, Kirzner hopes to provide a praxeological foundation for the *empirical* tendency of the market process toward equilibrium that is alleged by Hayek.[10] Thus Kirzner dismisses what he calls "any programmed pattern of allocative maximization" or "static decision making," i.e., choice, as a trivial expression of purposefulness that is unable to illuminate the equilibrating tendencies of the dynamic market process. In its stead he proposes "discovery," i.e., "man's entrepreneurial propensity to discover changes which can redound to his benefit," as the hallmark of purposive human action (p. 245).

It is important to reiterate at this point that Kirzner is not faulting Mises's conception of purposeful behavior but his own earlier failure to fully comprehend this conception, thereby imputing to Mises the origination of the discovery perspective which Kirzner has so elegantly elaborated in his later works. Thus when confronting the question of why Mises apparently endorsed Kirzner's earlier, mistaken interpretation of his position by writing a laudatory Foreword to Kirzner's 1960 book, Kirzner responds that Mises did not "explicitly articulate" the insights yielded by this perspective and therefore may well have believed that what was implicit in his own position was also implicit in Kirzner's "superficial exposition" of that position. Or, alternatively and even less plausibly, Kirzner speculates that Mises himself may not have been consciously aware of these momentous implications of his own thought (p. 249, n. 1).

I would like to suggest however that the simplest and most plausible explanation for Mises's uncensorious Foreword is the correct one: Kirzner's concluding chapter gave a full and accurate explication of what Mises knew to be his own "economic point of view," whose central element Mises himself repeatedly and explicitly characterized as purposive human action describable in

terms of choice and the efficient allocation of scarce resources. Moreover, contrary to Kirzner's contention, Mises did indeed succeed in deducing from this restricted notion of purposeful behavior catallactic theorems relevant to the analysis of the dynamic market process. Preliminary to arguing this point, I will demonstrate that Kirzner's emphasis on discovery as the essence of purposiveness leaves him unable to logically account for the choice process and, ultimately, for the very existence of acting man.

For Mises, human action, whether isolated or involving monetary exchange, is always motivated by the eagerness of the actor to enhance his welfare and consists of choosing among alternative employments of resources whose necessarily future results are not known with certainty. Because the choice process logically implies uncertainty—choice and action would be obviously futile in a world where humans are predestined to endure a rigidly unchangeable sequence of future events known with perfect certainty—the prerequisite of any specific act of choice is the acquisition of knowledge, via direct experience or from other sources of information, about the events and prevailing circumstances of the recent past that may be relevant in formulating an "understanding" of the future conditions upon which the actions under consideration will impinge. For example, if the actor is choosing among alternative investments of resources for producing goods intended for sale on the market, then information about "current" prices, i.e., realized prices of the immediate past, in addition to qualitative knowledge concerning the most recent technical conditions of production and conditions underlying consumer demands, is an almost indispensable guide to forecasting future market conditions. It is only upon the basis of such knowledge and forecasts that the actor is able to appraise and estimate the future prices of the various products which enter into his calculations of monetary profit. These calculations permit his ranking of the alternative investments under consideration, which then enables him to purposefully and efficiently allocate his resources at the moment of choice.

Thus, for Mises, the moment of choice coincides with the emergence of a value scale that is the *raison d'etre* and consummation of the actor's previous "discovery" activities and that provides the framework for purposive behavior. Choice and action can only be conceived as occurring within such a "a given situation." Contrary to Kirzner's later interpretation of Mises,

discovery cannot serve as the core of the central axiom in a praxeological system, precisely because there is no possibility of inferring from it the "given situation" prerequisite to the moment of choice. A being who is ever seeking to "discover changes that have occurred" in his situation can never *act* on those discoveries because he is incapable of creating the framework for choosing. In the newer Kirznerian interpretation, therefore, the Misesian *homo agens* has been transformed into *homo quaerens*, a perpetual and aimless seeker of new knowledge who is forever unable to turn it to account in improving his welfare; a shade who has become unstuck in (praxeological) time, having no existence in what Mises calls the "real present," that neverending sequence of "given situations" which is created by purposive entrepreneurial evaluation of past experience and forecasting of the future and in which all action is initiated and all human life is lived.[11]

We have thus established that, according to Mises, "discovery" is logically implied in the very concept of choice and need not be posited as an independent facet of human purposiveness and, furthermore, that the propensity to discover new opportunities, when analyzed in isolation as the essential or predominant feature of purposiveness is incapable of generating any meaningful propositions about human action, not to mention the market process. Or, in other words, from the perspective of Misesian praxeology, entrepreneurial information gathering and forecasting are never autonomous and free-flowing activities directly expressing purposefulness, but are always rigidly governed by the exigencies of choosing under uncertainty. In my interpretation, therefore, it is a significant distortion of Mises's view to say with Kirzner that it is the discovery element in human action rather than "maximizing rationality" that "drives the market" (p. 247); for Mises, it is the fact that the entrepreneur desires to efficiently allocate his resources in service of his goal of maximizing profit (and ultimately, utility) that drives both his quest for understanding of future market conditions and, when this quest culminates in the purposive choice of production processes, the dynamic market process.

But what of Kirzner's claim that a theorematic system derived from a concept of purposefulness lacking an independent discovery dimension is unable to elucidate "those dynamic processes through which the market absorbs and responds to exogenous changes" and which are central to Misesian economics (p. 245). In fact Misesian catallactics is exactly the spinning out of the implications of purposeful behavior engaged in by

individuals who perceive the benefits of specialization and exchange described by the law of comparative advantage and whose productive activities are oriented by monetary calculation to satisfying anticipated consumer demands in the cheapest possible way. For Mises one of the most important functions of the market process is to provide the meaningful numerical data, the money prices, that are used in such economic calculations. These computations of monetary profit enable each producer to discern and purposefully choose that pattern of uses for his resources that he expects to maximize his satisfaction from participation in the exchange process. Because of the complexity of the technical interrelationships between the factors of production and the innumerable possibilities of their use and combination within a capital-using economy, without the ability to calculate, producers, no matter how much qualitative knowledge of the economic data they discovered or were endowed with, would never be able to use such knowledge in pursuit of their purposes and would abandon social cooperation under the division of labor as a means for enhancing their welfare.[12] Thus, severing choice from discovery, far from elucidating the nature and operation of the dynamic market process, yields the condition under which it ceases to operate.

Having linked up purposive individual behavior with the market process through the theory of monetary calculation, Mises then formulated his catallactic theory, based on Böhm-Bawerkian price theory and his own theory of the promoter-entrepreneur, to analyze the operation of this process. For purposes of arguing that Kirzner's view of the market process has much more in common with Hayek than Mises, allow me to briefly enumerate the most salient features of Mises's understanding of the dynamic market process as the outcome of calculable actions.

I focus first on the characteristics of the prices that are generated by the market process and serve as the data for economic calculation. These are realized prices; or, in other words, they are the actual outcome of the historical market process at each moment in time and are determined by the value scales of the marginal pairs in each market. They are, therefore, also market-clearing prices the establishment of which coincides with a momentary situation, what Mises calls the "plain state of rest" (PSR),[13] in which no market participant, given his existing marginal-utility rankings of goods and money and knowledge of prevailing prices, can enhance his welfare by

participating in further exchange. However, despite their character as market-clearing prices, these are also disequilibrium prices. Thus as a consequence of the unavoidable errors of entrepreneurial forecasting and price appraisement under uncertainty, most goods are sold at prices that do not conform to their monetary costs of production, thereby generating realized profits and losses for producers. Nor does the law of one price for commodities and the associated but broader law of the absolute spatial equality of the purchasing power of money hold in the PSR, because market conditions are continually changing, while the information of each transactor about current conditions is necessarily incomplete and arbitrage processes do not operate instantaneously.[14]

Second, for Mises, the market process is open-ended and entrepreneurial. It is open-ended because the continual exogenous changes in the economic data preclude it from ever reaching a state of long-run equilibrium or what Mises refers to as a "final state of rest" (FSR), in which all commodity prices and the purchasing power of money are perfectly arbitraged, speculative holding of commodity stocks is absent, and profits and losses have been completely eradicated.[15] The FSR is an imaginary construct that enables the economist to isolate and describe the entire sequence of adjustment, including the time-consuming reorientation of the production structure, which results from a given change in the economic data. In FSR analysis, the economist begins with an initial FSR, introduces an alteration in the data, i.e., in tastes, technology, money supply, etc., and then traces out the steps by which the market adjusts to a new FSR, all the while rigidly maintaining a *ceteris paribus* assumption. From this analysis it may be inferred that the reallocation of resources from less profitable to more profitable production processes coincides with an improvement in the satisfaction of consumer wants.

Or the economist may employ FSR analysis to demonstrate that, if at any point in time, all further changes in the economic data were to suddenly cease, the adjustment processes currently operating in response to past changes would eventually culminate in an FSR and, if no further changes intervened, in a state of eternally repetitive robotical activity or "evenly rotating economy" (ERE) in which uncertainty, entrepreneurship, and the demand for a medium of exchange are eliminated and the very conditions of choice and action abolished. This latter mode of employing the analysis is effective in illustrating the point that at

any instant in time all purposive behavior aimed at attaining a state of optimum satisfaction is tending toward establishing a state of nonaction. What prevents the emergence of such a state is the neverending flux in the means and ends of action. Thus, from the standpoint of Misesian catallactics, to declare that the market is "equilibrating" can never be taken to mean that the market process ever actually progresses toward a given long-run equilibrium in historical or calendar time. It can mean that the reallocations of productive resources undertaken by entrepreneurs seeking to exploit anticipated profit opportunities —if and when such profits are realized—result in a relatively improved state of want satisfaction for consumers; or it can mean that the complex of autonomous yet coordinated choices and actions that constitute the market process, at any given moment in historical time, is aimed at establishing an optimum state of consumer satisfaction and would eventuate in such a state in the absence of further change in the data.

But despite its usefulness, FSR analysis was never intended by Mises to provide a grasp of the function of the entrepreneur or "promoter," whose activities drive the open-ended market process actually unfolding in time. For Mises, the promoter concept goes beyond the category of the pure entrepreneur derived from the action axiom, and its construction embodies cognition of a fundamental datum of catallactic analysis: that some people are more adept than others at anticipating and adjusting to change.[16] Within the context of the Misesian market process, promoter-entrepreneurs are those who seek to profit by actively promoting adjustment to change. They are not content to passively adjust their catallactic activities to readily foreseeable changes or changes that have already occurred in their circumstances; rather, they regard change itself as an opportunity to meliorate their own conditions and aggressively attempt to anticipate and exploit it. The real market process is thus entrepreneurial in the sense that it is driven by an identifiable, though ever-changing, class of individuals whose productive activities are guided by monetary calculations based upon purposeful and perpetual forecasting of an uncertain and changing future.[17] As noted above, the prices used in such calculation are the appraised prices of the future, i.e., the prices anticipated to be realized at future moments of an open-ended market process that will never cease to be buffeted by changes in the economic data. It should be emphasized that these prices are *not* the same prices which emerge during the course of a *ceteris*

paribus or "systematic" (as Kirzner terms it) market process smoothly progressing toward the FSR.

Third, and finally, Mises conceives the market process as coordinative, "the essence of coordination of all elements of supply and demand."[18] This means that the structure of realized (disequilibrium) prices, which continually emerges in the course of the market process and whose elements are employed for monetary calculation, performs the indispensable function of clearing all markets and, in the process, coordinating the productive employments and combinations of all resources with one another and with the anticipated preferences of consumers. Such "price coordination," by insuring that scarce resources are secured by the entrepreneurs bidding the highest prices, also insures that at each instant Böhm-Bawerk's "Law of Costs" prevails, that is, that the constellation of resource prices that emerges on a market unhampered by legal restrictions *always* reflects the circumstance that existing resources are devoted to their most valuable uses as determined by entrepreneurial appraisements of future output prices.[19] It should be noted that as a concept applicable to the real world of uncertainty and change, Misesian price coordination is consistent with the speculative withholding of labor and other resources from current production in anticipation of the later emergence or discovery of more valuable employments.[20] While such speculative activities may modify the shape of the momentary supply and demand curves and the valuations of the marginal pairs in the affected markets, they do not in any way alter the coordinative quality of the market process.[21]

From the Misesian perspective, price coordination is thus the very essence of the market and a necessary attribute of its real existence. As such it is an *ex post* concept. In the absence of price coordination, e.g., in a regime of all-around price controls, the allocation of scarce resources within the social system of want satisfaction becomes purposeless and chaotic. The concept of equilibration, on the other hand, is an *ex ante* concept expressing recognition that entrepreneurs responding to the lure of expected monetary profits seek to anticipate and remove the continually emerging maladjustments between means and ends and that their success in doing so would culminate in a state of optimum satisfaction, i.e., nonaction. Equilibration therefore presupposes price coordination in the same way that, in a nonsocial process of individual want satisfaction, purposeful allocation of resources presupposes the existence of a unitary value scale by means of

which resources can be meaningfully evaluated and ranked.[22]

Let me now contrast this interpretation of Mises's view of the market process as deduced from the axiom of purposeful behavior with the Kirznerian interpretation that ascribes the axiomatic position in Mises's praxeological system to the proposition that individuals have a propensity to discover changes that have already occurred in their given situations. In the latter interpretation, Mises does not view the market as an open-ended process, as a complex entwinement of mutually-influencing historical adjustment processes in various states of completion, a process which is constantly shifting direction in response to new changes in the data and never actually temporally approaches a state of final rest and nonaction. Rather, the Kirznerian interpretation emphasizes the market as a "systematic" process, one that really progresses toward equilibrium by effecting an increasing coordination of the plans of market participants. The ultimate goal of this process, the perfect coordination of individual plans, is an attribute of the final equilibrium state. But such "plan coordination" is worlds apart from the concept of price coordination adumbrated above. The latter concept, as I have argued, refers to a realized coordination of all the disparate and contingent individual buying and selling plans underlying the market demand and supply curves that actually exist at any given moment in a changing and uncertain world. Plan coordination, on the other hand, describes an imaginary situation in which automatons endlessly repeat a logically consistent pattern of actions, a situation that is akin to the perfect adaptation of the elements of a completely robotized factory to one another.

In fact, Kirzner's discovery perspective does not originate in Mises's concept of human action but in Hayek's conception of the market as a means for disseminating the knowledge which systematically guides decentralized and initially ignorant decision-makers toward a full, *ex ante* coordination of their various production and consumption plans.[23] But since *ex ante* plan coordination can only be achieved in long-run equilibrium —is a condition defining such equilibrium—as both Hayek and Kirzner recognize, Kirzner is forced to shift his analytical focus from the real-world, open-ended market process to a hypothetical market process which is generated by initial ignorance among market participants of the full range of exchange opportunities afforded by the prevailing and *fixed* configuration of the economic data and which must therefore

eventually terminate in an FSR.

With the possibility of exogenous change and genuine uncertainty thus banished from its purview, Kirzner's analysis of the market process has no use for the concept of the dynamic promoter-entrepreneur who is perpetually forecasting and appraising the future in quest of anticipated profit opportunities. The market process is now characterized as driven toward its fixed and final goal of perfect-plan coordination by discoverer-entrepreneurs alert to "changes that have occurred in their very market situations," i.e., to contemporaneously emerging discrepancies between prices of the same good available at different locations or in different forms (virtual products, i.e., resources and actual products). In these quasi-static conditions, production loses its temporal dimension and may be conceived of as a matter of pure arbitrage, i.e., of simultaneously buying and selling the same good in spatially diffuse markets. It is only under these circumstances, where producers may be characterized as arbitrageurs, that the Hayekian proposition that information about prices of the immediate past substitutes for detailed qualitative knowledge of past and future market conditions in guiding the production process holds true. As producer-arbitrageurs act to exploit newly-discovered discrepancies between prevailing input and output prices, ignorance of mutually beneficial exchange opportunities among market participants measurably diminishes, the buying and selling plans of individuals are progressively coordinated (in the *ex ante* sense), and prices are systematically driven toward their final equilibrium values.

Once we drop the assumption of an absence of exogenous change in analyzing the market process, Kirzner's characterizations of the entrepreneur as an alert discoverer of existing opportunities, of the market process as the means for plan coordination, and of realized prices as a surrogate for qualitative knowledge about the economic data all fall to the ground. And this we indeed must do in interpreting Mises, because he does not employ such an assumption for analyzing the function of the entrepreneur or deducing conclusions about the dynamic market process. As I pointed out above, for Mises, FSR analysis, which utilizes this assumption, is primarily useful for demonstrating that the consequences of a change in the economic data are not restricted to the initial adjustment of the market price but also involve longer-run adjustments in resource allocation and the production structure.

Hayek, on the other hand, even in his earliest writings on business-cycle theory, in which he was most heavily under Mises's influence, envisaged the economy as actually departing from and rapidly returning toward a "static state" under impact of changes in the data. Thus, in *Monetary Theory and the Trade Cycle*, for instance, Hayek wrote that "For so long, at least, as disturbing monetary influences are not operating, we have to assume that the price which entrepreneurs expect to result from a change in demand or from a change in the conditions of production will more or less coincide with the equilibrium price. For the entrepreneur . . . will generally be in a position to estimate the price that will rule after the changes have taken place [i.e., in the new FSR]."[24]

While in later writings Hayek emphasized that the state of equilibrium and *ex ante* plan coordination is "an admittedly fictitious construction" never to be observed in the real world, he still insisted that the efficiency of the economic process is to be gauged by its observed proximity to such a state. Accordingly, in the *Pure Theory of Capital*, he argued that the "justification" of the concept of equilibrium "is not that it allows us to explain why real conditions should ever in any degree approximate towards a state of equilibrium, but that observation shows that they do to some extent so approximate, and that the functioning of the existing economic system will depend on the degree to which it approaches such a condition."[25] Affirming the "tendency" of market prices to conform to their equilibrium levels, Hayek clearly indicates that he considers the historical market to usually operate in close proximity to the equilibrium state. Thus he defines "tendency" in the following terms: "A given phenomenon may tend to [approximate towards] a certain magnitude if in a great number of cases it may be expected to be fairly near that magnitude, even if there is no reason to expect that it will ever actually reach it, however long the time allowed for the adjustment."[26]

Indeed, as Hayek points out, in order for prices to fulfill their knowledge-disseminating and plan-coordinating functions, the economy must subsist in a state of what I will call "proximal equilibrium," wherein realized prices are always fairly accurate indicators of future prices. Writes Hayek:

> successful economic action [or the fulfillment of the expectations which prompted it] depends largely on the approximately correct predication of future

> prices. These predictions will be based on present prices and their trends. . . . Indeed the function of prices is precisely to communicate, as rapidly as possible, signals of changes of which the individual cannot know but to which his plans must be adjusted. This system works because on the whole current prices are fairly reliable indications of what future prices will probably be.[27]

Kirzner evidently rejects the Hayekian concept of proximal equilibrium as a realistic description of the operation of the market economy, arguing that "the market is in a continual state of flux and is never in or near a state of equilibrium." He then goes on to argue that "the [endogenous] layer of change, consisting of systematic equilibrating tendencies (which never do manage to become fully completed before being disrupted by new exogenous change) is responsible for the degree of allocative efficiency and of growth potential that market economies display."[28] But, if this is the case, Kirzner must logically conclude, which he does not, that market economies are not very efficient at all, because he has already argued that the market process never proceeds very far toward the ideally efficient state of perfect plan coordination.[29] This point aside, Kirzner's theory of the discoverer-entrepreneur, whose activities systematically drive market prices toward their equilibrium configuration, can be viewed as an attempt to liberate Hayek's notion of catallactic efficiency as the *ex ante* coordination of decentralized plans from its dependence upon the vague and untenable assumption of proximal equilibrium as the normal state of the historical market economy. However, Kirzner's attempt itself implicitly invokes the ideas of quiescent calendar periods which separate successive exogenous shocks and during which equilibrating endogenous changes are given scope to work themselves out to some extent.

But there is no more basis in Mises's work for Kirzner's idea of real-time equilibration than there is for Hayekian proximal equilibrium. As Mises emphasized, it is impossible to determine and meaningless to suggest that the real economy is closer to the FSR, and therefore manifests a superior coordination of plans and greater allocative efficiency, at one instant of time than it was at a previous instant. For Mises, each moment that passes introduces fresh exogenous changes into the system which impinge upon and reorient the ongoing market process toward a

new FSR. As a result, very little can be established about the progress of any one of the host of individual adjustment processes that compose the market process. In fact the very idea of a single, compartmentalized adjustment process is no more than a useful analytical fiction which permits the economist to make sense of the overwhelmingly complex phenomena of the unitary market process. In Mises's words, "The various adjustment processes are in reality not isolated. Synchronously an indefinite number of them take their course, their paths intersect, and they mutually influence one another. To disentangle this intricate tissue and to observe the chain of actions and reactions set into motion by a definite change of the data is a difficult task for the historian's understanding and the results are mostly meager and questionable."[30]

In the alternative interpretation of Mises's view of the market process that I have been expounding, the notion of allocative efficiency has nothing to do with the Hayekian criterion of plan coordination. Rather, it derives from an analysis of principles of purposeful behavior. Thus, from the *ex ante* standpoint, the market economy is perfectly efficient, because entrepreneurial decisions based upon monetary calculation always result in the appraisement and allocation of resources in strict accordance with anticipated consumer preferences, in the same manner in which the choices of an individual actor produce a pattern of resource use reflecting his value ranking of expected satisfactions. Thus the Böhm-Bawerkian law of costs, according to which the money price of each and every resource always corresponds to the lowest appraised of the employments for which its available quantity just suffices, i.e., its expected marginal revenue product, is the perfect catallactic equivalent of the law of marginal utility that governs autistic exchange. Far from being trivial, this concept of *ex ante* efficiency is indispensable for distinguishing the unhampered market economy from other conceivable methods of organizing social cooperation under a division of labor. Thus a completely centrally-planned industrial economy is impossible of realization because, in the absence of actual exchange of productive factors and genuine factor prices, the planners are unable to "cost" and therefore purposefully or efficiently allocate the given resources under their control in accordance with even their own known scale of ends valuation.

The criterion of social welfare that is implicit in Misesian catallactics is therefore "Böhm-Bawerk efficiency," which

emphasizes the role of monetary calculation in enabling individuals to rationally evaluate and allocate the means at their disposal when pursuing their goals through social action, i.e., action that makes use of voluntary exchange and the social division of labor to realize its aims. Whereas Pareto efficiency and its Hayek-Kirzner plan coordination variant represent unrealizable standards—because based on perfect information and foresight—for evaluating the social *outcomes* of the choice process, Böhm-Bawerk efficiency invokes an ideal but attainable standard, i.e., the efficient *ex ante* allocation of resources by an individual choosing under uncertainty, and indicates the day-to-day coordinated functioning of the economy that results when the institutional *preconditions* of monetary calculation and, therefore, of rational social action are fulfilled. Judged by this criterion, the erroneous forecasts and malinvestments that sometimes characterize entrepreneurial choices are not proof against the efficiency of the real-world market; the market is efficient because it enables individuals to calculate and therefore to make meaningfully choices to reap the overwhelming benefits described by the law of comparative advantage and not because it yields absolute or approximate certitude about the outcomes of these choices (which is, in any event, also denied to autarkic choosers). In sum, the unhampered market is *socially* efficient because it provides the incentive for social action by establishing a tight producer-consumer nexus that gives full sway to consumer choice in determining the allocation of resources.[31] On the other hand, any coercive intervention into the market, which necessarily distorts or annuls its intricate calculational nexus coordinating consumer preferences and entrepreneurial choices, *ipso facto* generates a less efficient allocation of resources, i.e., one that does not completely and exclusively reflect the anticipated preferences of the participants in the social division of labor, and lowers social welfare. We may thus conclude that every act of intervention unambiguously lowers social welfare.[32]

Regarding *ex post* efficiency, the market economy is once again on all fours with the autarkic economy, with entrepreneurial errors and inefficiencies in production the inevitable product of uncertainty and change. However the market economy does embody a process which operates to minimize such errors and efficiencies. This is what Mises calls the “selective process,” which is continuously and actually operating in calendar time via monetary profits and losses to

weed out from the market the relatively unastute and inefficient entrepreneurs while transferring the power to choose the best uses and technical combinations of productive resources to the more farsighted and technically proficient entrepreneurs.[33]

In the Kirznerian interpretation there is no clear and meaningful distinction drawn between *ex ante* and *ex post* efficiency because the entrepreneur as *homo quaerens* never confronts the moment of choice, which would involve him in the purposeful allocation of resources or "Robbinsian economizing." Nor, for the same reason, can the historical market process in this interpretation possess a means of systematically eliminating less successful entrepreneurs and shifting control over productive processes to the more successful. Never burdened with the necessity of *choosing*, discoverer-entrepreneurs need never place any resources at risk of loss in *deciding* to seize a profit opportunity. In criticizing the term "decision-making" which had come into vogue along with other technocratic jargon in the 1950s, Mises pointed out that the term is "designed to divert attention from the fact that what matters is not simply to make a choice but to make the best possible choice. This means: to proceed in such a way that no less urgently desired end should be satisfied if its satisfaction prevents the attainment of a more urgently desired end."[34] Given the obvious importance that Mises attaches to purposeful choice in his praxeology and catallactics, it is difficult to fathom that he would have acquiesced in an interpretation of his view of the market process that assigns the central role to a nonchoosing entrepreneur.

Perhaps one of the more unfortunate consequences of the homogenization of Mises's and Hayek's thought is manifested in the common tendency of current Austrian economists to formulate their entire research program in terms of a dictum uttered by Hayek, while uncritically attributing support for such a program to Mises. The dictum to which I refer is Hayek's oft-quoted remark that "it is probably no exaggeration to say that every important advance in economic theory during the last hundred years was a further step in the consistent application of subjectivism."[35] For Mises, however, the goal of theoretical research in economics was not to simply "extend subjectivism," but to elucidate the crucial link between the subjective realm of individual purpose and valuation and the social pricing process that provides the objective data for economic calculation. According to Mises, such an endeavor must begin with "that brilliant achievement of the classical economists . . . essentially a

theory of calculated action" and then broaden it into a "a system dealing with all human choices, a general theory of action."[36] Elsewhere Mises wrote that "supply and demand are only the links in a chain of phenomena, one end of which has . . . visible manifestation in the market, while the other is anchored deep in the human mind."[37] A further indication that Mises perceived the task of modern economics to be that of explicating the connection between individual purpose and the objective catallactic foundations of society is Mises's letter to Hayek in which he relates that he was initially undecided whether to entitle his *magnum opus Human Action* or *Social Cooperation*.

Richard M. Ebeling's contribution to the volume "Variations on the Demand for Money Theme: Ludwig von Mises and Some Twentieth-Century Views" (pp. 127–38) exemplifies this confusion of research programs. Ebeling gives a very good account of the essential differences between Mises's cash-balance approach to the demand for money, which derives from Carl Menger, and the Cambridge cash-balance approach as formulated in the writings of A. C. Pigou and drawn from the "oral tradition" which had been initiated by Alfred Marshall. Ebeling then proceeds to analyze the neo-Keynesian and monetarist macroeconomic approaches from the perspective of the methodologically individualistic Misesian approach, criticizing the propensity of both monetarists and Keynesians to argue in terms of the stability or instability of the aggregate demand for money. Unfortunately, in his critique, Ebeling throws out the demand-for-money baby with the stability bathwater, arguing that "from Mises's perspective, it is inappropriate to speak about *the* demand for money and *its* stability" and that "to speak of the community's 'aggregate demand for money' is not only methodologically unsound, but analytically incomplete" (pp. 135, 137).

Contrary to Ebeling's assertion, however, Mises did indeed hold that individual demands for cash balances could and should be aggregated into an overall market demand schedule for money. Thus, while he warned that investigation into the demand for money could not "begin with the demand for money of the community," he fully accepted the legitimacy of aggregating the individual demands into a social demand, declaring that "[t]he demand for money of the economic community is nothing but the sum of the demands for money of the individual economic agents composing it."[38] While such a seemingly innocuous aggregate of homogeneous quantities may

very well violate some unwritten canon of the Hayekian "subjectivist" paradigm, Mises clearly recognized that without reference to *the* demand for and supply of money it would be impossible to carry out the core of his own research program: integrating value and monetary theory to permit the explanation of the unified structure of money prices whose existence is the *sine qua non* for economic calculation and the purposeful allocation of resources within the framework of an economy based upon the division of labor.

In support of his anti-aggregation interpretation, Ebeling adduces Mises's insights that: (1) the purchasing power of money is not a single price but an array of the alternative quantities of the various goods which the monetary unit commands in exchange and (2) changes in the supply of money never affect the elements of this purchasing-power array simultaneously and equiproportionally and therefore invariably result in permanent redistributions of real income and wealth (p. 136). But, as Mises clearly recognized, these important insights establishing the nonneutrality of money are not relevant to the question of whether or not money-demand schedules may be properly aggregated across individuals; rather, they speak to the issue of the shape of the aggregate demand curve for money, leading to the conclusion that such curves can never be rectangularly hyperbolic.[39]

Although reluctance to employ the concept of a social demand for money cannot properly be attributed to Mises, it can be detected in Hayek's early works on business cycle theory. Thus, in *Monetary Theory and the Trade Cycle*, Hayek criticizes Menger and Mises for "including in the theory of the value of money *all* influences of money on prices."[40] In effect, Hayek is reproaching Mises in particular for attempting to provide an integrated analysis of variations in the supply of money in terms of both their systematic effects on relative prices and their effects on the height of overall prices, rather than just concentrating on the former type of analysis which Hayek considers the "far more important task" of monetary theory.[41] In *Prices and Production*, Hayek goes even further to encourage the realization by monetary theorists of "the superfluity of the concept of a general value of money, conceived as the reverse of some price level." He goes on to write that the type of monetary theory whose development he looks forward to "will be no longer a theory of the value of money in general, but a theory of the influence of money on the different ratios of exchange between goods of all

kinds."[42] Lest it be thought that Hayek is here objecting only to the concept of a statistical price level, it should be noted that his critique of Menger and Mises was advanced despite his explicit recognition that their notion of the general value of money ". . . has nothing to do with any measurable value, in the sense of some price level."[43] By challenging the very notion of the general purchasing power of money, Hayek, of course, is implying the uselessness of the concept of an aggregate demand for money.[44]

In contrast to the Wieser-Hayek position,[45] however, Mises held that the social appraisement of productive factors via entrepreneurial competition in resource markets, which is the very basis of economic calculation and purposive action, can only proceed in monetary terms.[46] Thus, in the course of estimating the expected marginal revenue products of the various inputs into his planned production processes and determining what prices to bid for them, the entrepreneur cannot help but estimate the absolute height of prices, i.e., the general purchasing power of money, because the exchange ratios between the various present goods and between present and future goods, i.e., Hayek's all-important "relative prices," are and must be embedded in the structure of money prices. Or, to put it another way, money's nonneutral effects on the economy operate only through the medium of *money* prices.

These considerations tend to be lost sight of when focusing on Hayekian proximal equilibrium because, outside of an uncertain and changing world, there is no need for a monetary appraisement process to continually revolutionize and recreate the price structure; in proximal equilibrium, money plays the role of a shadowy *numeraire*, and efficient action depends only on entrepreneurs knowing the currently prevailing configuration of relative prices, which serves as a good, if not perfect, indicator of their likely future configuration. For Hayek, it is only when the money spending stream expands or shrinks that it has a nonneutral impact on the economy by causing reversible changes in the ruling barter rates of exchange and jarring the economy temporarily out of its proximal equilibrium. For Mises, on the other hand, it is only the existence of a real and tangible medium of exchange, with a market and, hence, a driving force all its own, that permits the operation of market processes at all. From Mises's standpoint, then, it is not the inescapable fact of money's inconsistency with an imaginary state approximating equilibrium but monetary intervention misdirecting the dynamic

appraisement process that falsifies entrepreneurial calculations, undermines efficient resource allocation, and discoordinates the economy.

Sanford Ikeda's contribution, entitled "The Dynamics of Government Intervention: Theory and Implications" (pp. 201–12), is an interesting and original effort to formulate "a more systematic theory of what can be called the 'interventionist process'" that takes Mises's critique of interventionism as its point of departure (p. 202). What Ikeda seeks is to integrate the Misesian critique with public choice theory as a means of explaining the observed "ebb and flow of government growth," featuring prolonged periods of progressive deregulation alternating with periods of increasing interventionism, with neither the deregulatory phase nor the interventionist phase ever culminating in complete laissez-faire or thoroughgoing socialism, respectively (pp. 203–4).

In analyzing the "Misesian interventionist dynamic" which drives the process, however, Ikeda resorts to the Kirznerian discovery view of entrepreneurship, wherein the entrepreneur "serves a social function by [unintentionally] solving the knowledge problem" (pp. 204–5). By discovering and arbitraging discrepancies between simultaneously existing prices of the same or virtually the same goods, the entrepreneur repairs the gaps in knowledge of decentralized market participants and better coordinates their individual buying and selling plans. As I argued above, however, this view is at odds with Mises's theory of entrepreneurship, which focuses on the entrepreneur's function of *calculating* the most valuable uses of currently available inputs on the basis of *anticipated* output prices.

Ikeda also uses the Hayekian concept of "unintended consequences" to describe the outcome of single acts of intervention, and he characterizes the interventionist process as an "unintended process" (p. 205). From the Misesian perspective, however, the motivation for the various acts of intervention is precisely those immediate benefits that are intended by its proponents. And while Mises admits that there may be "unforeseen" long-run consequences of any intervention, he attributes them not to an inevitable and irremediable condition associated with the Hayekian "knowledge problem," but to antisocial and deliberately obscurantist ideologies that blind the masses to the conclusions of economic theory.

Moreover, Mises's analysis of the interventionist process does not preclude the possibility that the proponents of an

intervention recognize and intend its generally unforeseen consequences. Thus unions support minimum wage laws precisely because these laws price low-skilled workers out of the labor market and increase the demand for skilled union workers, while bureaucrats manning municipal rent-control boards may welcome the growing apartment shortage resulting from rent control because it increases their power, prestige, and the value of the favors they can bestow. Indeed, it is precisely the goal of many radical environmentalists to cripple capital formation and productivity and to bring about a decline of real income and population via environmental regulations. The very crises which regularly recur as the interventionist process proceeds also may be desired by those who are ideologically committed to the extension of political control over the economy.

Finally, I contend that Ikeda is simply incorrect when he asserts that "the reasoning underlying [Mises's] critiques of both socialism and interventionism [is] the same—the existence of the knowledge problem makes the consequences of government intervention nasty and unexpected" (p. 208). First, as Mises emphasizes time and again throughout his writings, "economic calculation," and not knowledge, is the "essential and unique problem of socialism."[47] Thus, according to Mises, even if the central planning board was endowed with full and perfect knowledge of the relevant economic data, without recourse to monetary calculation using genuine market prices, it would not be able to determine the optimal among the infinitude of possible uses and technical combinations of the available factors of production.[48] Second, as I have just pointed out, from the Misesian perspective, the consequences of an intervention are not necessarily "unexpected" to its active promoters and beneficiaries and need not continue to be so to the masses it victimizes.

In his essay on "Mises on Free Banking and Fractional Reserves" (pp. 517–33), Lawrence H. White interprets Mises's advocacy of free banking based on fractional gold reserves as a program for economizing on the resource costs of supplying the medium of exchange while insuring that the issuance of fiduciary media is regulated in accordance with the desideratum of a neutral money, i.e., a money that does not impinge upon or distort the underlying real processes of the economy. It was Adam Smith, the acknowledged father of free banking, who introduced into monetary theory the proposition that a pure specie money involved a waste of scarce resources, while it was

Hayek who originated the concept of, if not the term, "neutral money." According to Hayek in his most mature writings, the "nearest practical approximation" to such an admittedly "fictitious" ideal is a monetary system in which "increased demand for liquidity" is met by increases in the money supply aimed at maintaining stability of an index of raw materials prices that serve as a proxy for the average prices of the original factors of production, land and labor.[49] Assuming no increase in the stocks of the original factors, the practical attainment of Hayek's monetary ideal would result in "constancy of the money stream,"[50] which, not coincidentally, also happens to be the desired goal of modern free bankers.[51]

In his paper, White characterizes Mises as the prototype of modern free bankers, who opposed any ban on competing private banks issuing fiduciary media redeemable in gold on demand on the grounds that ". . . such a ban (1) would make the economy more vulnerable to money demand shocks, and (2) would needlessly increase the cost of supplying the economy with media of exchange" (p. 528). As White notes, this interpretation of Mises's rationale for free banking clashes sharply with Murray Rothbard's argument that Mises favored free banking as a preferred means of suppressing the issuance of fiduciary media, because it circumvents the dangers associated with ceding virtual control over the banking system to government, a result that Mises believed might be entailed by an outright legal prohibition of fractional reserves.

In fact, White's interpretation of Mises's views on fractional reserves and free banking is based on his unwarranted, if unintentional, homogenization of Mises with Smith on the question of the criteria of an ideal monetary system. White falls into error because he overlooks important passages in the very works of Mises that he cites, and because he ignores significant developments in Mises's theory of money that occurred between the publication of the first German edition of *The Theory of Money and Credit* in 1912 and the publication of *Nationalökomie* (the German language forerunner of *Human Action*) in 1940. In his 1940 work, Mises tells us, his "monetary theory achieve[d] completion" with the merger of "the theory of indirect exchange with that of direct exchange into a coherent system of human action."[52] These developments resulted in an important modification of Mises's earlier assessment of the relative benefits and costs of fiduciary media that is not acknowledged by White.

As White correctly points out (pp. 520–22), in *The Theory of*

Money and Credit, Mises identifies three significant benefits of the issuance of fiduciary media. The first benefit involves the prevention of "convulsions" to economic activity that would have occurred in the absence of an expansion of the money supply caused by the creation of fiduciary media as a result of "an enormous extension of the demand for money" and the consequent increase in its purchasing power that was brought about by the historical extension of the money economy. The second benefit is the familiar Smithian one of reducing the "cost of the monetary apparatus." And the final benefit of fiduciary media is that their issuance sufficiently enhanced the profitability of the credit activities of the banking system early in its history to permit its survival and growth. The only disadvantage of fiduciary media that Mises recognized in this book, according to White, is a relatively minor one: the risk of default by the issuing bank due to mismanagement or bank runs. Thus White concludes that Mises "viewed fractional-reserve banking as a natural and desirable development in a free society" (p. 522).

But White's conclusion is mistaken, attributable to his failure to fully come to terms with one of Mises's most famous contributions to economic theory: his demonstration of the causal link between fiduciary media and the business cycle. White (pp. 524–25) evidently holds that according to Mises business cycles are generated by the *overexpansion* of fiduciary media by central banks unrestrained by competitive market forces. However, Mises's chapter on the business cycle, following directly upon the chapter enumerating the benefits of fiduciary media which White cites in support of his own interpretation, [53] makes it pellucidly clear that the necessary and sufficient cause of the cycle is the unsustainable divergence between the "loan" and "natural" rates of interest effected by the creation of fiduciary media. For Mises, then, cyclical discoordination of the economy is indeed a disadvantage to be counted against fiduciary media *per se*. Accordingly, it is only *after* fully discussing both the advantages and disadvantages of fiduciary media, that Mises, in a section comprising the concluding five pages of the book—which is not referred to by White—addresses the "basic questions of future currency policy."[54] Here, Mises reprints the conclusion of the first German edition (the English edition is a translation of the second German edition published in 1924), in which he emphatically urged the suppression of all further creation of fiduciary media, if not the outright banning of

fractional-reserve banking. Contrary to White's assertion, Mises was evidently convinced that the disadvantages of issuing fiduciary media, now including their cycle-generating property, far outweighed their earlier enumerated advantages.

Concludes Mises:

> [Fiduciary media] should logically be subjected to the same principles that have been established with regard to money proper; the same attempts should be made in their case as well to eliminate as far as possible human influence on the exchange ratio between money and other economic goods. The possibility of causing temporary fluctuations in the exchange ratios between goods of higher and of lower orders by the issue of fiduciary media, and the pernicious consequences connected with a divergence between the natural and money rates of interest, are circumstances leading to the same conclusion. Now it is obvious that the only way of eliminating human influence on the credit system is to suppress all further issue of fiduciary media. The basic conception of Peel's Act ought to be restated and more completely implemented than it was in the England of his time by including the issue of credit in the form of bank balances within the legislative prohibition.
>
> *It would be a mistake to assume that the modern organization of exchange is bound to continue to exist. It carries within itself the germ of its own destruction; the development of fiduciary media must necessarily lead to its breakdown*. . . . It will be a task for the future to erect safeguards against the inflationary misuse of the monetary system by the government and against the extension of the circulation of fiduciary media by the banks.[55]

It is hardly to be concluded from the passage I have emphasized in the foregoing quotation that Mises looked with equanimity, let alone favor, upon the further creation of fiduciary media by banks, whether "free" or not.

White (p. 520) cites a part of a paragraph from a later, 1928 work of Mises's,[56] in which Mises reiterates the point that a suppression of the issue of fiduciary media would have given rise to historical situations in which the emergence of an excess

demand for money resulted in an increase in the purchasing power of money that was temporarily disadvantageous to the economy. However, White does not cite the last sentence of this same paragraph, which identifies an important benefit that would have followed from the prohibition of further emission of fiduciary media: "the economy surely would not then have experienced the stormy upswings followed by dramatic reversals of the upswings into crises and declines."[57]

Mises also makes it clear later in the same work that the benefits of fiduciary media fall far short of their costs in terms of cyclical discoordination of economic activity. He therefore calls for the implementation of a revised Currency school program in the following terms:

> The most important prerequisite of any cyclical policy, no matter how modest its goal may be, is to renounce every attempt to reduce the interest rate, by means of banking policy, below the rate which develops on the market. That means a return to the theory of the Currency school, which sought to suppress all future expansion of circulation credit and thus all further creation of fiduciary media. . . . [I]t means the introduction of a new program based on the old Currency school theory, but expanded in the light of the present state of knowledge to include fiduciary media issued in the form of bank deposits.[58]

Far from rejecting the Currency school program, as White would have us believe, it is clear Mises desired to reformulate it on a sounder theoretical basis in order to strengthen its practical application. Thus, contrary to White, Mises supported a free banking regime precisely because it would eventually result in "extreme restraint in the issue of fiduciary media." Free bankers would learn such restraint from their experiences of the crises and bank runs that would inevitably occur during the historical course of development of fiduciary media. Once such lessons were absorbed by the more astute banking entrepreneurs, policies of extreme caution and restraint would be enforced on the entire banking system as less responsible banks persisting in the further creation of fiduciary media would be immediately confronted by the twin threats of adverse interbank clearings and of loss of confidence by a once or twice chastened and now more sophisticated bank clientele.[59] At this point the program of the

Currency school would be fully and properly implemented, as further extension of "circulation credit" by the banks would be checked and any additional accumulation of bank assets would reflect an increase in commodity credit based on time deposits and equity investments of voluntarily saved funds.

Unlike our modern free bankers, Mises emphatically did not foresee the free banking system evolving toward a minuscule reserve ratio of gold to demand liabilities and the progressive transformation of gold into a practically demonetized interbank "clearing asset."[60] For Mises, rather, evolution was all in the opposite direction, with initial entrepreneurial ignorance precipitating an early splurge in the creation of fiduciary media and the resulting cyclical fluctuations leading slowly back to a system of marginal 100 percent reserves while painfully renewing awareness among the public that bank notes and deposits are not money *per se* but merely claims to and substitutes for money, i.e., gold.

In his earlier writings, then, Mises did perceive there to be definite advantages associated with the issue of fiduciary media, but he was willing to forego such advantages for the greater advantage of maintaining the integrity of monetary calculation and preventing disruptions of the price-and-interest-rate coordination of the economy. By the time he came to write *Human Action*, however, his views on entrepreneurship, monetary calculation, and money had evolved to the point where he was able to recognize that the benefits he had once attributed to the creation of fiduciary media were largely illusory. In particular, the later Mises abandoned his earlier belief that an increase in the purchasing power of money is somehow disadvantageous for the market economy.

Regarding a world in which there occurs a persistent "goods-induced" rise in the purchasing power of money resulting from secular growth in the supplies of commodities and services in conjunction with a rigidly fixed nominal money supply, Mises argued in *Human Action* that such a state of affairs would not disrupt the moment-to-moment price coordinating function of the market or upset the monetary calculations that lead entrepreneurs to efficiently allocate productive resources in service of anticipated consumer preferences.

As Mises wrote:

> Entrepreneurs and investors . . . do not heed the general movement of all prices. What matters for

> them is the existence of discrepancies between the prices of the complementary factors of production and the anticipated prices of the product. No businessman embarks upon a definite production project because he believes that *the prices*, i.e., the prices of all goods and services, will rise. He engages himself if he believes that he can profit from a difference between the prices of goods of various orders. In a world with a secular tendency toward falling prices, such opportunities for earning profits will appear in the same way in which they appear in a world with a secular trend toward rising prices. . . .
>
> A secular tendency toward a rise in the monetary unit's purchasing power . . . would certainly not influence substantially the course of economic affairs. It would not remove the urge of people to improve their material well being as far as possible by an appropriate arrangement of production. It would not deprive the economic system of the factors making for material improvement, namely, the striving of enterprising promoters after profit and the readiness of the public to buy those commodities which are apt to provide them the greatest satisfaction at the lowest costs.[61]

Nor does the later Mises share with Hayek and the free bankers a dread of "monetary demand shocks," i.e., a "money-induced" increase in the purchasing power of money caused by a shrinkage of the money-spending stream due to hoarding. In particular, Mises denies that an increase in the demand for money at the expense of spending on consumer goods while the money supply remains unchanged will impede the process of transforming the additional real savings thus generated into an accumulation of new capital goods. Monetary calculation, taking into account the relative decline in prices of lower-order and consumer products and of the nonspecific factors of production, will faithfully reflect the increase in the availability of capital goods, and the prospect of higher profits will induce entrepreneurs to employ them in the expansion of their operations. As Mises concludes, "the main thing is that the capital goods resulting from additional savings are not destroyed

by coincident monetary changes. . . . Whenever an individual devotes a sum of money to saving instead of spending it for consumption, the process of saving agrees perfectly with the process of capital accumulation and investment. It does not matter whether the individual saver does or does not increase his cash holding."[62] For the Misesian, then, the coordinative and calculative market process can and will respond with perfect (*ex ante*) efficiency to any combination of anticipated changes in the set of consumer preferences, including changes in "liquidity" preferences.[63]

This leaves us, finally, only with the advantage of fiduciary media in reducing the cost of supplying a medium of exchange. Although, as White notes, Mises was inclined to heavily weight this alleged advantage in his earlier writings, in *Human Action*, Mises does not allude to it; however, he does refer to "the expensiveness of gold production" as "the minor evil" when compared to the inflationary potential of paper fiat and credit money.[64]

Of course, in *Human Action*, Mises still adhered to his previous view concerning the overwhelming disadvantage of the creation of fiduciary media associated with its potential for falsifying interest rates and monetary calculation, introducing inefficiency into the intertemporal allocation of resources, and precipitating the business cycle. This later assessment of the massive imbalance in favor of the disadvantages of fiduciary media may finally have led Mises to overcome his earlier fears of the expansion of political interference with banking that he foresaw as a possible ramification of the ultra-hardcore neo-Currency school program legally debarring all further additions to the outstanding circulation of fiduciary media, including demand deposits as well as notes. Thus, in his 1952 essay on "Monetary Reconstruction," which was included as Part Four in the second English edition of *Theory of Money and Credit*, Mises proposed just such a program as the basis for "the United States return to a sound currency."[65]

I conclude, then, that White's attempt to portray Mises's views on fractional reserves and free banking as prototypical of the modern free banking school, whose members draw their analytical orientation from equilibrium-based Hayekian monetary theory, is untenable. To the extent that Mises advocated the freedom of banks to issue fiduciary media, he did so only because his analysis led him to the conclusion that this policy would result in a money supply strictly regulated

according to the Currency principle. Mises's desideratum was not a neutral money, or even a practical approximation thereof, but to completely eliminate the distortive influences of fiduciary media on monetary calculation and the dynamic market process.

As I indicated at the outset, my purpose in writing this review essay has been specifically to illustrate and rebut the common tendency that I believe exists among fellow Austrian economists to conflate the views of Mises and Hayek. Rigid adherence to this purpose has caused the tone of the review to be decidedly negative. However, this should not be construed to mean that I disagree with all or even most of each of the essays under review. Had I reviewed these papers with a broader purpose in mind, the extent of the common ground between myself and the papers' authors, based on the "Mengerian overlap" between the Misesian and Hayekian paradigms, would have been quite evident. Moreover, I regard the contributions by Kirzner and White to this volume to be, each in its own respect, excellent summaries of these authors' pioneering efforts elsewhere to systematize and extend the Hayekian paradigm. In the case of Kirzner, it can be argued that his formidable body of work largely defines this paradigm as it currently stands. And the endeavor by White and the modern free banking school to give this paradigm a contemporary macroeconomic expression rests on the Kirznerian conception of the market process. Ikeda's essay, his attributions to Mises notwithstanding, is a promising initial step in the direction of adumbrating a Hayekian theory of interventionism, and Ebeling's essay, for the most part, does capture the uniqueness and fruitfulness of the Misesian approach to the demand for money. Having said this, I still insist that the homogenization of the views of two brilliant but very different thinkers serves no purpose today but to significantly impede the quest for knowledge and truth among those working within the Mengerian tradition.

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I wish to gratefully acknowledge comments on an earlier draft of this essay by Murray N. Rothbard, David Gordon, Israel M. Kirzner, and Lawrence H. White for helping me to rectify errors and ambiguities in, as well as to generally improve upon, my original exposition. This acknowledgement does not imply that these individuals bear any shred of responsibility for the

remaining imperfections in the essay or that the latter two concur in any of its arguments regarding their respective works.

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[1] For example, Erich Streissler, "To What Extent Was the Austrian School Marginalist?," *History of Political Economy* 4 (Fall 1972): 426–41; William Jaffé, "Menger, Jevons and Walras De-Homogenized," *Economic Inquiry* 14 (December 1976): 511–24; and the articles in the Special Issue on Carl Menger and the Austrian School of Economics, *Atlantic Economic Journal* 6 (September 1978).

[2] Jaffe, "Menger, Jevons and Walras De-Homogenized."

[3] See, especially, F. A. Hayek, "Some Remarks on the Problem of Imputation," in idem *Money, Capital, and Fluctuations: Early Essays,* Roy McCloughry, ed. (Chicago: University of Chicago Press, 1984), pp. 33–54. That there is no possibility of economic calculation and rational or purposeful allocation of resources within an economy based on division of labor where one will alone acts is, of course, the essence of Mises's critique of socialism. Perceiving the unbridgeable gulf between his own and Wieser's position on the possibility of directly imputing values to higher-order goods in the absence of monetary exchange, Mises, in his *Notes and Recollections* ([Spring Mills, Ill.: Libertarian Press, 1978], p. 36), wrote that "[Wieser's] imputation theory is untenable. His ideas on value calculation justify the conclusion that he could not be called a member of the Austrian School, but rather was a member of the Lausanne School." Also, Hayek, explicitly following Wieser, conceives the main problem of capital theory to be to explain how it is that the nonpermanent resources constituting the capital stock can yield a permanent net (physical) return (F. A. Hayek, *The Pure Theory of Capital* [Chicago: University of Chicago Press, 1952], pp. 54–55). This Wieser-Hayek method of describing the *quaesitum* of capital theory loads the dice in favor of explaining the interest return on capital in terms of productivity (rather than time-preference) considerations and, at the same time, diverts attention from what Böhm-Bawerk brilliantly perceived to be the fundamental question that must be satisfactorily answered by a correct theory of interest and was so answered by Mises's pure time-preference theory: What is the cause of the difference in value between goods which differ only in their temporal availability? In theorizing on capital, moreover, Hayek (ibid., pp. 27, 156)

makes significant use of the Wieserian device of a communist society subject to the control of an omniscient dictator, a device which reflects a paradigmatic lack of concern with problems of monetary appraisement and calculation. Finally, we have Hayek's revelation that his neutral-money doctrine represents a development, albeit "unconscious," of Wieser's remarks on the effects of "a one-sided supply of money" (Hayek, "On Neutral Money," in idem, *Money, Capital, and Fluctuations*, p. 160).

[4] Thus, for example, Wieser's critique of central planning rests on a proto-Hayekian view of the market as the means for solving knowledge problems. Writes Wieser (*Social Economics*, A. Ford Hinrichs, trans. [New York: Augustus M. Kelley, 1967], pp. 396–97): "The one will and command which, in war and for legal unity, is essential and indispensable as the connecting tie of the common forces, detracts in economic joint action from the efficacy of the agency. In the economy, though it has become social, work is always to be performed fractionally. . . . Part-performances of this sort will be executed far more effectively by thousands and millions of human beings, seeing with thousands and millions of eyes, exerting as many wills: they will be balanced, one against the other, far more accurately than if all these actions, like some complex mechanism, had to be guided and directed by some superior control. A central prompter of this sort could never be informed of countless possibilities, to be met with in every individual case, as regards the utmost utility to be derived from given circumstances or the best steps to be taken for future advancement and progress." I am indebted to Peter Boettke, of New York University, or calling my attention to this passage.

[5] On the crucial significance of monetary calculation in the Misesian paradigm see Joseph T. Salerno, "Ludwig von Mises as Social Rationalist," *Review of Austrian Economics* 4 (1990): 36–41. Also see idem, "Two Traditions in Modern Monetary Theory: John Law and A. R. J. Turgot," *Journal des Economistes et des Etudes Humaines* 2 (June/September 1991): 368–70.

[6] This recrudescence of the "Whig presumption" among members and observers of the current Austrian school was recently brought to light in Murray N. Rothbard, *The Present State of Austrian Economics*, Working Paper from the Ludwig von Mises Institute, Auburn, Alabama (November 1992), pp. 4–5.

[7] Israel M. Kirzner, *The Economic Point of View: An Essay in the History of Economic Thought*, 2nd ed. (1960; Kansas City: Sheed and Ward, 1976).

[8] Israel M. Kirzner, *Perception, Opportunity, and Profit: Studies in the Theory of Entrepreneurship* (Chicago: University of Chicago Press, 1979), p. 109.

[9] Ibid., pp. 28, 30–31.

[10] Ibid., pp. 13–33.

[11] For Mises's conception of the "real present," see *Human Action: A Treatise on Economics*, 3rd ed. (Chicago: Henry Regnery, 1966), pp. 100–1. As Mises points out, "The present qua duration is the continuation of *the conditions and opportunities given* for action" (ibid., p. 101). I have added the emphases in this quotation.

[12] For recent discussions of Mises's contribution to the socialist calculation debate that characterize it as essentially an argument about calculation and not knowledge, see Salerno, "Ludwig von Mises as Social Rationalist," pp. 41–49; idem, "Postscript: Why a Socialist Economy Is 'Impossible'," in Ludwig von Mises, *Economic Calculation in the Socialist Commonwealth* (Auburn, Ala.: Praxeology Press, 1990), pp. 51–71; Murray N. Rothbard, "The End of Socialism and the Calculation Debate Revisited," *Review of Austrian Economics* 5 (2) (1991): 51–76; and idem, "The Present State of Austrian Economics," pp. 19–22. It seems that Richard Ebeling now also interprets Mises's argument along similar lines. See Richard M. Ebeling, "Introduction" in idem, *The Global Failure of Socialism* (Hillsdale, Mich.: Hillsdale College Press, 1992), pp. 6–8.

[13] According to Mises (*Human Action*, p. 762), "The notion of the plain state of rest as developed by the elementary theory of prices is a faithful description of what comes to pass in the market at every instant. Any deviation of a market price from the height at which supply and demand are equal is—in the unhampered market—self-liquidating." For further discussion of the PSR, see ibid., pp. 244–45. Arthur Marget also clearly recognizes that all prices that actually emerge in the course of the historical market process are and must be market-clearing prices that create a temporary lull in the process. In Marget's words, "the prices which we must ultimately explain are the prices 'realized' at specific moments in clock time [and] the only demand and supply schedules which are directly relevant to the determination of these 'realized' prices are market demand and supply schedules prevailing at the moment the prices are 'realized'. . ." (Arthur W. Marget, *The Theory of Prices: A Re-examination of the Central Problem of Monetary Theory*, 2 vols. [New York: Augustus M. Kelley, 1966], 2, p. 253). For an

exposition of Marget's view of the pricing process and its relevance to monetary theory, see Joseph T. Salerno, "Ludwig von Mises's Monetary Theory in Light of Modern Monetary Thought," presented at the Austrian Scholars Conference, New York City, October 1992 (unpublished ms), pp. 46–50.

[14] For a Wicksteedian micro analysis of the market's tendency to rapidly establish and maintain interspatial equality in the purchasing power of money, see ibid., pp. 41–45.

[15] Mises's discussion of the nature and uses of the FSR concept can be found in Mises, *Human Action*, pp. 245–46.

[16] On the "promoter" concept, see ibid., pp. 254–55, 303–11. As Mises (ibid., p. 585) points out, "What distinguishes the successful entrepreneur and promoter from other people is precisely the fact that he does not let himself be guided by what was and is [i.e., by realized prices], but arranges his affairs on the ground of his opinion about the future. He sees the past and present as other people do, but he judges the future in a different way. . . . The impulse of his actions is that he appraises the factors of production and the future prices of the commodities which can be produced out of them in a different way from other people."

[17] It was William H. Hutt (*The Keynesian Episode: A Reassessment* [Indianapolis: Liberty*Press*, 1979], p. 165) who felicitously described entrepreneurial activity as "dominated by perpetual forecasting."

[18] Ludwig von Mises, "The Position of Money among Economic Goods," in *Money, Method, and the Market Process: Essays in Honor of Ludwig von Mises*, Richard M. Ebeling, ed. (Norwell, Mass.: Kluwer Academic Publishers, 1990), p. 65.

[19] On Böhm-Bawerk's law of costs as an early formulation of the concept of price coordination, see Salerno, "Two Traditions in Modern Monetary Theory," p. 369. Böhm-Bawerk's erroneous characterization of his law of costs as "a law which has only approximate validity and teems with exceptions" resulted from his failure to realize that this law does not depend on the assumption of perfect knowledge and foresight. The law of costs no more requires that entrepreneurs have perfect knowledge of future market conditions than the law of marginal utility requires that consumers are able to perfectly predict their future value scales. Both laws require for their full applicability only that agents, whether allocating resources to achieve final consumption goals or the business goal of pecuniary profit, evaluate and rank the *anticipated* outcomes of the alternative

actions under consideration. For Böhm-Bawerk's statement of the law, see Eugen von Böhm-Bawerk, *Capital and Interest*, vol. 2, *Positive Theory of Capital*, George D. Huncke, trans. (Spring Mills, Penn.: Libertarian Press, 1959), pp. 248–56. Böhm-Bawerk's error occurs on pp. 255–56. A more detailed presentation and defense of the law of costs can be found in idem, "The Ultimate Standard of Value," in *Shorter Classics of Eugen von Böhm-Bawerk* (Spring Mills, Penn.: Libertarian Press, 1962), pp. 351–70.

[20] On this point see, Joseph T. Salerno, "Commentary: The Concept of Coordination in Austrian Macroeconomics," in Richard M. Ebeling, ed., *Austrian Economics: Perspectives on the Past and Prospects for the Future* (Hillsdale, Mich.: Hillsdale College Press, 1991), pp. 330–40.

[21] For an analysis of speculation which demonstrates that, whether successful or not, it does not impede the functioning of the coordinative market process, see Murray N. Rothbard, *Man, Economy, and State: A Treatise on Economic Principles*, 2 vols. (Los Angeles: Nash Publishing, 1970), 1, pp. 112–18.

[22] This understanding of equilibration as a strictly *ex ante* concept accords with the "purely logical concept of equilibration" superbly expounded and defended by George Selgin. See G. A. Selgin, "Praxeology and Understanding: An Analysis of the Controversy in Austrian Economics," *Review of Austrian Economics* 2 (1988): 33–43.

[23] Hayek (*Pure Theory of Capital*, p. 23) referred to this state of affairs as "a state of complete compatibility of *ex ante* plans." Adopting the preferred terminology of current Hayekians, I refer to it alternatively as "*ex ante* coordination of plans."

[24] F. A. Hayek, *Monetary Theory and the Trade Cycle*, N. Kaldor and H. M. Croome, trans. (New York: Augustus M. Kelley, 1966), p. 29.

[25] Hayek, *Pure Theory of Capital*, pp. 27–28.

[26] Ibid., p. 27, n. 2.

[27] F. A. Hayek, *Denationalization of Money—The Argument Refined: An Analysis of the Theory and Practice of Concurrent Currencies*, 2nd ed. (London: Institute of Economic Affairs, 1978), p. 82.

[28] Israel M. Kirzner, *The Meaning of the Market Process: Essays in the Development of Modern Austrian Economics* (New York: Routledge, 1992), pp. 38–39.

[29] However, if Kirzner's standards for efficiency are relatively undemanding and are met by even small movements of the market process toward his ideal of perfect plan coordination,

then this criticism loses its force. I am indebted to David Gordon for enlightening me on this point.

[30] Mises, *Human Action*, p. 653.

[31] Mises, of course, vigorously upheld "consumer sovereignty" as the operating principle of the unhampered market economy, while demonstrating the coordinative property of the market's price structure and its indispensability to economic calculation and rational social action. However, curiously, he never attempted to derive a formal criterion of social welfare from these elements.

[32] Murray N. Rothbard (*Toward a Reconstruction of Utility and Welfare Economics* [Burlingame, Calif.: Center for Libertarian Studies, 1977]) has ably demonstrated on purely scientific grounds that government intervention always fails to increase social welfare. In advancing to our more radical conclusion, we are able to completely discount any gains, in terms of direct utility or exchangeable goods, that accrue to the interveners and their beneficiaries, while remaining safely within the bounds of strict *Wertfreiheit*. The concept of Böhm-Bawerk efficiency is only concerned with the utility that derives from actions that take place completely within the social nexus, that is, the utility of "productive" consumers who earn income—and only to the extent that they earn this income—through voluntary exchange. Since it is the prospective or *ex ante* utility to be derived from acts of consumption that provides the rationale for individuals to participate in the social division of labor, it is their preferences and demands that must serve as the sole and ultimate standard of socially efficient resource use. Thus, for example, the redistribution of income to "nonproductive" consumers may be represented as a net siphoning off of resources from society that reduces the utility of at least some of its members and weakens their incentives for social action. The market demands of the nonproductive recipients of these resources then can be treated as falsifying monetary calculation and fostering a socially inefficient reallocation of productive resources.

[33] On the selective process, see Mises, *Human Action*, pp. 311–15.

[34] Ludwig von Mises, *The Ultimate Foundations of Economic Science: An Essay on Method*, 2nd ed. (Kansas City: Sheed Andrews and McMeel, 1978), p. 69.

[35] F. A. Hayek, *The Counter-Revolution of Science: Studies on the Abuse of Reason*, 2nd ed. (Indianapolis: Liberty*Press*, 1979), p. 52.

[36] Mises, *Human Action*, p. 231.

[37] Ludwig von Mises, *The Theory of Money and Credit*, H. E. Batson, trans., 2nd ed. (Irvington-on-Hudson, N.Y.: Foundation for Economic Education, 1971), p. 131.

[38] Ibid., pp. 131–32.

[39] On this point, see Salerno, "Mises's Monetary Theory," pp. 19–33.

[40] Hayek, *Monetary Theory and the Trade Cycle*, p. 117, n.

[41] Ibid.

[42] F. A. Hayek, *Prices and Production*, 2nd ed. (New York: Augustus M. Kelley, 1967), p. 29.

[43] Hayek, *Monetary Theory and the Trade Cycle*, p. 117, n.

[44] As Hayek ("On Neutral Money," p. 161) concludes, ". . . the theoretical concept of neutral money, which relates to the influence of money upon the price relationships [simultaneous and intertemporal] determined by real factors, cannot bear any relation at all to the concept of some 'price level' [even if this concept is introduced merely implicitly in the form of a 'demand for money' related to a definite price level]."

[45] As set forth in Hayek, "Some Remarks on the Problem of Imputation."

[46] See Mises, *Human Action*, pp. 331–38, for an explanation of the distinction between imputation and appraisement as these processes relate to the valuing of higher-order goods and of the relevance of this distinction for economic calculation.

[47] Ibid., p. 703.

[48] For a review of Mises's argument on this point, see Salerno, "Postscript: Why a Socialist Economy Is Impossible," pp. 52–54.

[49] Hayek, *Denationalization of Money*, pp. 84.

[50] Ibid., p. 77.

[51] For the free banking argument in favor of maintaining "monetary equilibrium," defined in Hayekian terms as a constant aggregate spending flow, see George A. Selgin, *The Theory of Free Banking: Money Supply under Competitive Note Issue* (Totowa, N.J.: Rowman & Littlefield, 1988), pp. 52–69. I should note that nowhere in his essay does White invoke the Hayekian concept of "neutral money." In fact, in another essay, White expresses mild skepticism about whether a free banking system is fully compatible with any macroeconomic norm including Selginian monetary equilibrium, although he seems to count it as a merit of the system's operation that it comes relatively closer to

obeying this norm in practice than the central banking alternative. See Lawrence H. White, "Commentary: Norms for Monetary Policy," in Ebeling, *Austrian Economics*, p. 477. Nonetheless, as I shall argue below in the text, the goal of "avoiding monetary demand shocks," which White imputes to Mises as a reason for supporting free banking and which White himself is obviously sympathetic to, is tantamount to stabilization of the money-spending stream.

[52] Mises, *Notes and Recollections*, p. 112.

[53] Mises's discussion of the advantages of fiduciary media occurs on pages 298–99 and 323, while his business cycle theory is presented on pages 339–66 (Mises, *Theory of Money and Credit*).

[54] Ibid., p. 406.

[55] Ibid., p. 407–09.

[56] The English translation is Ludwig von Mises, "Monetary Stabilization and Cyclical Policy," in idem, *On the Manipulation of Money and Credit*, Bettina Bien Greaves, trans. (Dobbs Ferry, N.Y.: Free Market Books, 1978), p. 145.

[57] Ibid.

[58] Ibid., pp. 167–68.

[59] Ibid., pp. 138–40.

[60] Lawrence H. White and George A. Selgin, "The Evolution of a Free Banking System," in Lawrence H. White, *Competition and Currency: Essays on Free Banking and Money* (New York: New York University Press, 1989), p. 235. At least one prominent member of the modern free banking school, Richard H. Timberlake (*Gold, Greenbacks, and the Constitution* [Berryville, Va.: George Edward Durell Foundation, 1991]) has taken the leap and now forthrightly advocates free banking on a nonspecie standard, although White himself continues to firmly insist upon gold as the proper monetary standard for a free banking regime. For a critique of Timberlake's plan, see Murray N. Rothbard, "Aurophobia: or, Free Banking on What Standard?" *Review of Austrian Economics* 6, no. 1 (1992): 97–108.

[61] Mises, *Human Action*, pp. 469–70.

[62] Ibid., pp. 521–22.

[63] For a demonstration of this, see Salerno, "Commentary: The Concept of Coordination in Austrian Macroeconomics," pp. 335–40.

[64] Mises, *Human Action*, p. 422. In fact, when free banks invoke option clauses, post-dated notes, and other devices permitting the contractual suspension of specie payments, their

notes and deposits are effectively transformed into a credit money, whose value is determined independently of the value of the original money commodity. For a discussion of Mises's neglected concept of credit money that touches upon this point, see Salerno, "Mises's Monetary Theory," pp. 8–11.

[65] Mises, *Theory of Money and Credit*, pp. 448–52.

Capitalism and Individualism. By Tibor Machan. New York: St. Martin's Press, 1990.

Tibor Machan is not the philosopher than whom no more productive can be conceived—that distinction belongs to Nicholas Rescher. But no other philosopher rivals Machan in his relentless stream of books, articles, and—not to be forgotten—letters to the editor in defense of a free society. *Capitalism and Individualism* ranks as one of Machan's best works. Its thesis deserves to arouse wide discussion among economists.

Although most American economists look favorably on the free market, Machan finds their characteristic defense of it lacking. As he sees it, economists uncritically assume that morality is not objective. Values consist entirely of subjective preferences, no more and no less.

This position appears to place its advocates in a difficult position. If they wish to support a particular social policy, are they not merely expressing their preferences? Why should others listen? Economists such as Milton Friedman and James Buchanan who favor moral subjectivism claim that they nevertheless can adequately defend the free market.

They assume that most people want material wealth. Given this goal, the economists can prescribe the method that offers the best chance toward its attainment. But goals are not confined to material wealth, important as this ranks. People wish to realize their preferences, whatever they may be, and the free market enables them to do so better than any alternative system. Every trade makes people better off from their own point of view.

Machan finds this approach "weighed, and found wanting in the balance." It rests, he thinks, on reductivist materialism and denies free will. Besides depending on these dubious philosophical underpinnings, the view fails on its own terms. People are not always better off when they make an exchange: is a drug addict better off when he buys narcotics (p. 10)? Further, many people do not rank material wealth first above all else. If the "neo-Hobbesians" then shift to the claim that people in the free market select their highest valued preference, whatever it is, they have arrived at a tautology. Finally, the economists' defense of the market does not inspire people. Even so wrong-headed a philosophy as Marxism does better on this score.

What is one to think of Machan's provocative diagnosis? Machan seems to me entirely on target in challenging the

uncritical assumption among many economists that value subjectivism is correct. I am less sure of his amalgamation of this view with materialism and determinism. Value subjectivism, so far as I can see, implies neither of these doctrines. James Buchanan, one of Machan's prime targets, advocates free will; and Ludwig von Mises, who to some extent fits Machan's model so far as value is concerned, supported dualism and free will as methodological assumptions. Nevertheless, I think Machan is right to assume some affinity between the various strands of the "neo-Hobbesian" account. The nature of the connection, if indeed it exists, needs to be spelled out.

Machan argues that those who say that we always choose our most highly valued preference have fallen into tautology. This seems to me mistaken. "Most highly valued preference" is not, after all, defined as "whatever we in fact choose," and some people, e.g., the proponents of satisficing rationality, deny that the statement is true. As they see it, we need only choose what is good enough: we need not select our highest ranked choice. Whether they are right is another question, but surely their contention is not self-contradictory. How then can the principle that we always choose our highest-ranking preference be empty of content?

Fortunately, this point does not much affect Machan's argument. Together with his criticism of the economists, he offers a proposal of his own. Defense of the market should rest on an explicit philosophy. It will come as no surprise that the philosophy Machan supports takes its chief inspiration from Ayn Rand.

Values in this system are objective, though not intrinsic. The world consists of multiple layers of being; he rejects mechanistic materialism in favor of a philosophy of emergence. Machan argues strongly for free will, citing the work of R.W. Sperry in its defense.

If people have freedom of choice, they bear responsibility for their actions. They are not passive products of changing circumstances. To meet their responsibilities, the cultivation of virtue is essential, and this vital task demands freedom for its realization. Attempts to impose virtue on others neglect this crucial condition. Here in essence is Machan's argument for freedom: it rests on the requirements of virtue rather than the vagaries of skepticism.

Machan's case for freedom does not reject economic efficiency. Rather, he maintains that arguments based on

economics require philosophical support. He contends that without such support, the calculation argument of Mises and Hayek achieves little. True enough, only a market economy can produce a wide variety of consumer goods efficiently. But what if the government does not care about this? It may demand that consumer tastes be sacrificed (pp. 120–21).

Machan quite correctly notes that not all regimes aim at consumer welfare. But the calculation argument does not assume the contrary. It applies as much to a dictatorship that wants tanks as it does to consumers who demand video games. The nub of the argument is that only a market can efficiently operate a structure of production. It deals with "higher order" goods rather than consumption.

If Mises is right, the efficiency argument case for the market has more strength than Machan allows. So long as the goals of people living in a modern society do not require economic chaos, their establishment of a socialist economy is irrational. If this is regarded as an argument against socialism, certain value judgments are assumed; but they hardly seem controversial. To make an economic case for the market, one need not put material wealth first. To accord it some weight suffices. (I have placed to one side the case of socialist regimes that can use the prices of capitalist economies.)

Several other remarks in the book seem dubious. Arrow's Theorem does not merely contend that intransitive preferences are possible: it sets forward certain conditions that *cannot* be mutually fulfilled (p. 126). Thomas Sowell's *Marxism* is not, except for its final chapter, anti-Marxist; Sowell defends Marx against Böhm-Bawerk's criticism (p. 10). Thomas Nagel does not contend prudence is irrelevant to morality. The principal argument of *The Possibility of Altruism* is that if prudence is rational, so is morality.

Although Machan sometimes errs in detail, his main contention in *Capitalism and Individualism* strikes home. Economists who reject moral objectivity need to examine their premises. Machan's hard-hitting book is a good place to begin.

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Swimming Against the Tide in Contemporary Philosophy. By Henry B. Veatch. Washington, D.C.: Catholic University of America Press, 1990.

In the past several years a number of economists centered at George Mason University have claimed to find an affinity between Austrian economics and certain types of Continental philosophy. Their views have not gone uncontested: Murray Rothbard and Hans Hoppe have assailed the "hermeneuticists" with characteristic vigor. I fear I am no unbiased witness, as I have played a minor part in the controversy.

Henry Veatch, a distinguished Aristotelian philosopher, advances in this excellent book an interpretation of modern philosophy which illuminates the controversy over hermeneutics. In addition, he presents a carefully conceived defense of Aristotelian ethics. Economists interested in welfare economics will find Veatch's discussion of ethics of substantial albeit indirect help to them. Often welfare economics conceals utilitarian premises, and Veatch subjects this ethical system to penetrating scrutiny. Although the book is a collection of separate essays, it is remarkably unified.

Like his master Aristotle, Veatch proceeds by a dialectical method. He means by this an analysis of the insights and errors of non-Aristotelian philosophers in order to "remove the obstacles" to what he deems the correct position (p. 6). It soon transpires that the rival philosophies contain much more error than insight.

Since Descartes, modern philosophy has refused to use as its starting point commonsense knowledge of the world. Descartes's methodic doubt changed the criterion of truth and had the effect of "transforming the everyday world . . . into a world that is largely unrecognizable by the commonsense and common experience of mankind" (p. 38).

Descartes and his rationalist successors failed in their quest to prove the existence of the external world and discover its nature through the use of deduction. Their empiricist counterparts were equally unable to show how one can gain knowledge of the real world if one is restricted solely to ideas or sensations.

Philosophy faced an impasse. Immanuel Kant claimed to have found an escape that would end the stagnation of

philosophy and permit it to progress as a science. Veatch believes that the transcendental turn, as he calls Kant's proposal, was a disastrous mistake. Nevertheless, it has dominated subsequent philosophy.

In brief, Kant thought that we cannot know things as they are in themselves. Instead, the mind imposes a grid consisting of the categories and the intuitions of space and time upon reality. Although we cannot know the real world, we can know appearances, since our minds have created them.

Veatch finds in this turn to the subject the basis of relativism and irrationalism. Kant thought that everyone used the same categories. He claimed to derive them by a "transcendental deduction"; if he was right, people have no choice in their application of concepts to experience.

Kant's successors made the categories changeable and relative. This more radical form of the transcendental turn has an unbreakable hold on modern philosophy. Veatch uses the turn to explain Quine's philosophy and, more generally, contemporary philosophy of science. A "theory or hypothesis in science is accepted, ultimately, for scarcely any other reason than that it enables us to introduce at least some sort of order and intelligibility into what otherwise would be a sheer welter of experience" (p. 53).

The culmination of the turn lies in the utter irrationalism of the Deconstructionists. He sees this movement not as a mere Continental fad. It carries to an extreme tendencies present in modern philosophy from its inception. Deconstruction totally rejects external control over textual interpretation. The transcendental turn can at last go no farther.

Veatch argues that this movement has malign ethical consequences. Both Deconstruction and the pragmatism of Richard Rorty lead to "that total permissiveness that Nietzsche talked about so confidently and so brashly" (p. 92; question mark omitted).

Veatch's probing account of modern philosophy will seem familiar to readers influenced by Ayn Rand, who gives a similar account of the errors of modern thought. Although so far as I am aware the two did not know or influence each other, a number of Randian philosophers esteem Veatch highly.

Though Veatch's analysis is impressive in its scope and unity, a few doubts—not I hasten to add, Cartesian ones—come to mind. First, one gets the impression from Veatch's discussion that Descartes arbitrarily rejected commonsense beliefs. But

would not Descartes respond that the skeptical issue he addressed is a genuine problem? How do we know that our experience gives us knowledge of the real world? Veatch I think would reply that all attempts to justify knowledge which start from doubt of commonsense have failed. Either we take as given that we perceive real things or we wind up in skepticism. *Tertium non datur*.

The effectiveness of this response depends on Veatch's success in showing that once skepticism is allowed in the door, it cannot be expelled. His criticism of Kant's transcendental turn is especially vital, since he sees the turn as basic to contemporary philosophy.

Veatch's evaluation of Kant, however, strikes me as disputable. He takes Kant to be saying, in effect: "We do not know reality: all that we know are appearances." Veatch rightly takes this view to lead to relativism and skepticism.

But this interpretation of Kant depends crucially on the equation of reality with things-in-themselves. Since the phenomenal world includes everything governed by the categories, it might be argued that the phenomenal world just *is* the commonsense world. If so, Kant did not then deny realism but affirmed it. I do not mean to endorse this view of Kant: there is a great deal to be said for Veatch's interpretation. But if the realistic view of Kant is right, Veatch needs to show that Kant's deduction of the categories fails. Otherwise, his indictment of the transcendental turn collapses.

In "Is Quine a Metaphysician?", Veatch attempts to use one of Quine's own arguments against him. The theme of the piece is that Quine has made Kant's transcendental turn. He imagines a Quinean objector who protests against his translation of "Quinese" into "Kantese" on the grounds of the radical indeterminacy of translation, a famous thesis of Quine's. Veatch replies by citing another Quinean view, the inscrutability of reference.

Veatch has misread the passage he quotes from *Ontological Relativity*. He thinks Quine claims that because "it makes sense to say even of oneself that one is referring to rabbits and formulas and not to rabbit stages and Gödel numbers, then it should make sense to say it of someone else" (p. 79, citing Quine, *Ontological Relativity*). But Quine's point is just the opposite. He thinks that because it does *not* make sense to say of someone else what he refers to, it does not make sense for someone to say it of himself.

Veatch also finds contemporary moral philosophy radically

unsatisfactory. He draws the customary distinction between teleological and deontological theories. The latter fail utterly; the former require revision along Aristotelian lines.

Veatch approaches ethics with a fundamental assumption. No ethical judgments are self-evident. Claims that people have rights or obligations require justification: they cannot be simply taken as obvious. I wonder whether this is correct. Are there no particular judgments, e.g., "Torturing small children for fun is wrong" that are more clearly true than the premises of any theory supposed to justify them? Veatch is no doubt right that the judgment just given is not self-evident, if by that he means that no logical contradiction results from the statement's negation.

But self-evidence in this sense, and "obvious" truth, are two quite different things. Veatch moves too quickly from one to the other. If we can take our ordinary commonsense judgments to be true in epistemology, why may we not do the same in ethics?

But even if Veatch has insufficiently justified the need for justification, he raises penetrating objections to the particular theories he discusses. Utilitarianism fails because of a flaw in its starting point. Its advocates tell us to maximize happiness, understanding happiness as the satisfaction of desire. But why is it good to satisfy desire? Unless a utilitarian can first establish this, he cannot arrive at an ethic. Appeal to the Principle of Universalizability avails nothing. If someone argues "I want to satisfy my desire; but if it is good to satisfy my desire, it is good to satisfy anyone else's," he has begged the question. *Is* it good to satisfy desire?

Deontological theories fare no better. "[T]here is no basis whatever for the rights claims that are the very basis and starting point of modern teleological ethics" (p. 111). Kant's categorical imperative lends no help, because it is a purely formal principle. Gewirth's principle of generic consistency suffers from a failing like that of utilitarianism. Even if Gewirth is right that the nature of action compels us to claim certain rights, we cannot generate an ethics by universalizing the claims. The rightness of the original claims has not been shown: without an "ought" from which to begin, nothing is available to universalize.

Some theories are in even worse shape, since their advocates advance no arguments at all in their defense. He includes Robert Nozick among this group.

What then is the answer? Veatch locates it in "obligatory ends" (p. 101). These are desires that an individual ought to

have. They qualify as ethical by passing the "Euthyphro test": one desires them because they are good. They are not good because they are desired.

Now the question of course becomes: how are obligatory ends established? Veatch once more returns to Aristotle. Human beings have a nature, and what perfects that nature is an obligatory end. Once one obtains, "I ought to perfect my nature," the Principle of Universalizability does the rest. Everyone ought to perfect his or her nature. Thus ethics has been established on a rational basis.

Veatch's relentlessly pressed case arouses both admiration and doubt. As with epistemology, the form of his argument is this: approaches *A*, *B*,—etc. will not work. If, then, we want an objective ethics we must proceed in the way Veatch specifies.

But to argue that unless one adopts his view, one will end up on an unwanted position begs the question. If one accepts Veatch's contention that ethical judgments are not self-evident, why take for granted that an objective ethics can be derived?

Veatch might deny that he has argued solely by elimination of alternatives. On the contrary, he has argued directly for the truth of his view. But the system of natural ends he favors depends on a controversial principle: a human being ought to fulfill his natural end. Though I cannot now argue the point, I think the principle requires more defense than Veatch gives it here or in his earlier books.

Veatch also is open to objection for not being Aristotelian enough. Why does he combine his natural-end ethics with the Principle of Universalizability, a Kantian device? It is not obvious that a moral system must use this principle, nor is it a truth of logic. Veatch recognizes that some libertarians have challenged the principle, but he discusses only those who abandon morality altogether along with universalizability. He never considers genuine moralities lacking this feature (pp. 183, 186–87).

With characteristic independence of mind, Veatch maintains that all rights are negative. There is "no warrant for supposing that as human beings we have any positive rights at all" (p. 326). This is well said, but, unfortunately, Veatch's argument for negative rights fails. He then is left with no justified rights at all.

His defense of rights is that if "I ought to do something then I have a right not to be interfered with" (p. 325). How can this be justified on Veatch's own ethics? He argues that each person ought to pursue his natural end. But nothing in this principle forbids someone from interfering with someone else's pursuit of

his end.

The principle also fails without reference to Veatch's ethics. Suppose one has a duty to make the best use of his talents. Someone correctly decides that obtaining a job as a bouncer at the W. D. Ross Bar will be a major step forward. Does this prevent others from competing for the job?

He makes one or two other dubious claims about moral theory. He argues that amoralism is self-referentially inconsistent if the amoralist tries to give reasons for his refusal to pay attention to morality. If the amoralist says he ignores morality because there is no such thing, is he not claiming justification for his conduct (p. 189)?

He is indeed, but he need not claim moral justification. To assume that justification must be moral begs the question. The amoralist can view his ignoring morality as analogous to the denial unicorns exist. He is an amoralist, not an arationalist.

Also, Veatch's account of Philippa Foot is inaccurate. She claims that certain terms, e.g., "courageous" or "rude," can be applied only in particular circumstances. Avoiding the cracks in the sidewalk while walking could not be courageous, if this is all there is to the story. Veatch agrees with her but thinks her argument rests on "mere linguistic rules" instead of a genuine connection with reality (p. 147). This imputes to her a conventionalist view of language she takes pains to argue against. Also, he wrongly supposes that she accepts universalizability.

As will be apparent, I do not invariably agree with Professor Veatch. But he is sometimes profound, usually first-rate, and always provocative.

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Hyperinflation and Hyperreality: Thomas Mann in Light of Austrian Economics

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> One may say that, apart from wars and revolutions, there is nothing in our modern civilizations which compares in importance to [inflation]. The upheavals caused by inflations are so profound that people prefer to hush them up and conceal them.
>
> —Elias Canetti, *Crowds and Power*

I

With the worldwide collapse of socialism as an economic system, Marxism today stands thoroughly discredited as an intellectual position. Made prophetically early in this century, Ludwig von Mises's claim that economic calculation is impossible in the absence of free markets has been vindicated by the manifest failure of Soviet communism. Decisively refuted by the facts of economic life, Marxism has been forced to retreat to the one place in the academy where empirical reality seems to carry no weight in an argument: the humanities departments. As has often been noted, the great paradox of academic life at the moment is that just when Marxism has lost all credibility in the practical world, it has come to dominate the study of the humanities in American universities. Deconstruction and other forms of poststructuralism prepared the way for this outcome. By calling into question any notion of truth and objectivity, these movements in literary theory left humanities departments vulnerable to the lingering bewitchment of Marxism in a way to which other disciplines more in touch with reality have been comparatively immune.

In the grand sweep of world history, it may seem a fair exchange to see millions of people liberated from the Marxism

that was forced upon them, while a handful of literature professors voluntarily subject themselves to an outmoded and refuted dogma that somehow flatters their egos and soothes their social consciences. And despite the grandiose claims of literary critics to be changing the world, no one—not even a Chairman of the Federal Reserve—has ever been foolish enough to turn to a professor of English for economic advice. Thus one might be tempted to accept the apparently benign use of American humanities departments as retirement homes for washed-up Marxists. But we should not underestimate the danger of abandoning the study of literature to Marxist theorists; how our students view the humanities may well affect their broader view of the world. And in particular we need to guard against the possibility that Marxism may be repackaged under such slogans as "socialism with a human face." Having lost all respectability as an economic theory, Marxism is likely to continue to resurface periodically as a vaguely humanistic program. In a recent article, Richard Rorty forthrightly and courageously admits the economic failure of Marxism, and yet he cannot help looking back nostalgically to the days when socialism seemed to be a viable economic alternative:

> But I have to admit that something very important has been lost now that we can no longer see ourselves as fighting against "the capitalist system." For better or worse, "socialism" was a word that lifted the hearts of the best people who lived in our century. A lot of very brave men and women died for that word. They died for an idea that turned out not to work, but they nevertheless embodied virtues to which most of us can hardly aspire.[1]

Setting aside the fact that a lot of equally brave men and women died fighting *against* socialism, we can see in Rorty's statement the danger of allowing socialism to retain its claims to the moral high ground. One way of salvaging the cause of socialism is to insist that, however much a failure it may have been as an economic alternative to capitalism, it still provides a kind of ethical alternative in some vaguely humanistic sense.

At the heart of the form of deconstructed or aestheticized Marxism that currently dominates humanities departments stands the belief that literature with its higher ethical sense somehow still points us in the direction of socialism. But there is no reason why the left should have a monopoly on the study of

literature. Even though many authors have in fact been socialist in their leanings, the prevailing notion that literature can only be used for leftwing purposes is just a myth. In a brief paper, I cannot hope to demolish systematically such a long-standing and ingrained prejudice. But I do want to use one concrete example to suggest that literary analysis need not be the exclusive preserve of the academic left, but is in fact compatible with Austrian economics. I will discuss a short story Thomas Mann wrote in 1925, "Unordnung und frühes Leid," or, as it is known in English, "Disorder and Early Sorrow."[2]

Set in Weimar Germany during the time of the hyperinflation, this story takes on new meaning once it is analyzed in terms of Mises's theory of inflation and the crack-up boom. With Mann's uncanny ability to mirror economic and social reality in his fiction, he succeeds even without any knowledge of Austrian economics in bringing out the psychological ramifications of an inflationary environment with a subtlety of insight Mises would have admired. Moreover, as we analyze "Disorder and Early Sorrow" in light of Mises's theory of inflation, we will see that the story has larger implications for our view of twentieth-century cultural history. A reading of Mann in terms of Austrian theory helps to uncover a connection between the economic facts of the twentieth century and the very poststructuralist ideas that have given Marxism a second life in today's humanities departments. In short, I hope to show that, despite all indications to the contrary from my colleagues, it is possible to talk about literature and still make economic sense.

II

At first sight, "Disorder and Early Sorrow" may appear too insubstantial a story to bear up under the weight of any kind of sustained analysis.[3] Mann tells the tale of an apparently average day in the life of Dr. Abel Cornelius, a professor of history. His teenage children, Ingrid and Bert, are holding a party for their friends, a typical cross section of youthful acquaintances, including students and entertainers. Everyone enjoys the party, especially the professor's younger children, Ellie and Snapper, who relish the opportunity to spend time with the grownups. Finding his routine disturbed by the presence of all the young people, the professor is nevertheless in some ways attracted to them and their modern way of life. He wanders in and out of the party, tries to get some work done in his study,

and eventually goes out for his daily walk. He returns to find his house in an uproar. His five-year old daughter is throwing a tantrum, as a result of feeling spurned by an engineering student named Max Hergesell, for whom she rather precociously developed a crush while he playfully danced with her. Upset that Hergesell cannot be her brother, little Ellie is not consoled until Max gallantly comes to her room to wish her good night, thus bringing the tale to a close with a poignant hope of innocence restored.

Though seemingly slim in substance, "Disorder and Early Sorrow" presents the kind of world familiar to us from the great texts of literary modernism, such as Eliot's *The Waste Land* or Mann's own "Death in Venice." The story charts the dissolution of authority, as we watch a social order breaking down and see the confusions that result. In particular, Mann portrays a world in which parents are losing their authority over their children. Obviously viewing their parents as old fogies, the children think of their generation as smarter than the preceding one. Mann portrays a world that has gone mad in the worship of youth. As a sign of the resulting confusion, we are introduced to the "big folk" (*die Grossen*) in the first paragraph (p. 179), only to discover in the second that the term applies to the teenagers, not, as one would expect, to their parents. The little children already call their father by his first name. As a story of people growing up too fast, "Disorder and Early Sorrow" appropriately concludes with the incident of Elbe's infatuation with Max. The image of a five-year old girl having her first love affair becomes Mann's way of crystallizing our sense of the absurd pace of development in this world.

In "Disorder and Early Sorrow" all categories are breaking down. While the children behave like adults, the adults start behaving like children; in order to play with Elbe and Snapper, Cornelius "will crook his knees until he is the same height with themselves and go walking with them, hand in hand" (p. 191). This image of a "diminished Abel" (p. 191) points to the broader collapse of hierarchy in Cornelius's world, especially any sense of social distinctions. He has a hard time telling his son from his servant; they dress alike and are prone to the same youthful fads and fashions (pp. 179–80, 203). The world of "Disorder and Early Sorrow" has become so confusing that it is difficult for the characters simply to tell what is real anymore. This aspect is brought out by the presence of actors throughout the story. Mann emphasizes elements of imitation and parody; Ingrid has "a

marked and irresistible talent for burlesque" (p. 179), which she and her brother love to put to use:

> They adore impersonating fictitious characters; they love to sit in a bus and carry on long lifelike conversations in a dialect which they otherwise never speak. (p. 183)

When an actor named Ivan Herzl shows up at the party in heavy makeup, he provokes Cornelius into thinking about how people no longer are what they seem: "You would think a man would be one thing or the other—not melancholic and use face paint at the same time" (p. 196). Mann creates a pervasive sense of inauthenticity in the story; the modern world is a counterfeit world.

With all stable points of reference gone, the only law of "Disorder and Early Sorrow" appears to be perpetual change. Against this instability, Mann sets his central character. As a professor of history, Cornelius is always searching for something solid to grab hold of in the midst of all this mutability, and he wistfully contrasts the fixity of the past with the everchanging world of the present:

> He knows that history professors do not love history because it is something that comes to pass, but only because it is something that *has* come to pass; that they hate a revolution like the present one because they feel it is lawless, incoherent, irrelevant—in a word, unhistoric; that their hearts belong to the coherent, disciplined, historic past. . . . [He seeks] the temper of eternity. (p. 186)

Thus like *The Waste Land*, "Disorder and Early Sorrow" counterpoints the coherence of past eras with the incoherence of modern times.

III

Thus far Mann's story sounds like many other modernist works, chronicling the breakdown of order in twentieth-century life. But when one looks in the story for Mann's sense of what is responsible for this breakdown, the uniqueness of "Disorder and Early Sorrow" begins to emerge. Modernists have put forward many explanations for the incoherence of twentieth-century life.

In *The Waste Land*, for example, Eliot correlates the disorder of the modern city with a failure of religious faith and a loss of the traditional myths that used to give coherence to life. But in "Disorder and Early Sorrow," Mann explores another possibility, correlating his portrait of modern life with a specific historical event—the German inflation of the 1920s, an economic development so extraordinary that a new term had to be coined to describe it—*hyperinflation*. The absurdity of modern life has been traced to many sources, but here Mann looks to the absurdity of modern economic policies. He suggests that if we seek an explanation of the dissolution of authority in the world he is portraying, we should look to the monetary madness of the Weimar Republic.[4] As he shows, inflation eats away at more than people's pocketbooks; it fundamentally changes the way they view the world, ultimately weakening even their sense of reality. In short Mann suggests a connection between hyperinflation and what is often called hyperreality.[5]

If modernity is characterized by a loss of the sense of the real, this fact is connected to what has happened to money in the twentieth century. Everything threatens to become unreal once money ceases to be real. I said that a strong sense of counterfeit reality prevails in "Disorder and Early Sorrow." That fact is ultimately to be traced to the biggest counterfeiter of them all—the government and its printing presses. Hyperinflation occurs when a government starts printing all the money it wants, that is to say, when the government becomes a counterfeiter. Inflation is that moment when as a result of government action the distinction between real money and fake money begins to dissolve. That is why inflation has such a corrosive effect on society. Money is one of the primary measures of value in any society, perhaps *the* primary one, the principal repository of value. As such, money is a central source of stability, continuity, and coherence in any community. Hence to tamper with the basic money supply is to tamper with a community's sense of value. By making money worthless, inflation threatens to undermine and dissolve all sense of value in a society.

Thus Mann suggests a connection between inflation and nihilism. Perhaps in no society has nihilism ever been as prevalent an attitude as it was in Weimar Germany; it was reflected in all the arts, and ultimately in politics. It would of course be wrong to view this nihilism as solely the product of an inflationary environment. Obviously Weimar Germany faced many other problems, some the legacy of World War I and the

Treaty of Versailles, some the legacy of nineteenth-century German thinkers such as Nietzsche. But as Mann's story reminds us, we should not underestimate the role of inflation in creating the pervasive sense of nihilism in Weimar Germany. A glance at the back of an American dollar bill shows two phrases: "United States of America" and "In God We Trust." Somehow our money is connected with our political and even our religious beliefs. Shake a people's faith in their money, and you will shake their other faiths as well. This problem has become particularly acute in the twentieth century, because ours is the age of paper money, money that has to be taken on faith alone. That is why we have to put "In God We Trust" on the back of our dollars; nobody really trusts the Chairman of the Federal Reserve. In "Disorder and Early Sorrow," Mann invites us to consider what happens to our lives when we are forced to take our money purely on faith and that faith is betrayed by the government.

Unlike many economists and historians to this day, Mann is not mystified by the cause of inflation[6]; he makes it clear in the details of the story that what has gone haywire in Weimar Germany somehow involves the money supply. We cannot help noticing that something is wrong when we hear of Cornelius drinking a "watery eight-thousand-mark beer" (p. 184). And Mann is aware that government fiscal policies are the source of the trouble. It cannot be an accident that the historical subject Cornelius is studying is precisely the beginnings of modern central banking and deficit financing, and hence the origins of inflation as a tool of modern public policy:

> First he reads Macaulay on the origin of the English public debt at the end of the seventeenth century; then an article in a French periodical on the rapid increase in the Spanish debt towards the end of the sixteenth.[7] (p. 192)

Financial details chronicling the absurdity of hyperinflation are scattered throughout the story. Cornelius is making a million marks a month, and that is merely "more or less adequate to the chances and changes of post-war life" (p. 182).

Under these insane conditions, people become obsessed with the economic facts of life and must devote all their energy just to trying to stay above water. Frau Cornelius feels disoriented in the most basic tasks of daily life:

> The floor is always swaying under her feet, and

> everything seems upside down. She speaks of what is uppermost in her mind: the eggs, they simply must be bought today. Six thousand marks a piece they are, and just so many are to be had on this one day of the week at one single shop fifteen minutes' journey away. (p. 183)

We see here how one government intervention in the economy immediately leads to others. Having produced scarcities in the market with their inflationary policies, the authorities introduce new regulations to try to deal with the irrationality they themselves created. But faced with the rationing of goods, the people in Mann's story learn to get around the government's tampering with the market:

> For no single household is allowed more than five eggs a week; therefore the young people will enter the shop singly, one after another, under assumed names, and thus wring twenty eggs from the shopkeeper for the Cornelius family. (p. 183)

Here Mann presents the characteristic inauthenticity of the world he is portraying as a direct response to government intervention in the market, which forces people to become fakes.

Mann is aware of how absurd the German inflation became, and moreover he shows how that absurdity in turn worked to make all of life absurd in the Weimar Republic. He shows one of the moments in inflation Mises concentrated on, the flight into real goods:[8]

> Before the young people arrive [Frau Cornelius] has to take her shopping basket and dash into town on her bicycle, to turn into provisions a sum of money she has in hand, which she dares not keep lest it lose all value. (p. 192)

With the value of money diminishing virtually hour by hour, people desperately search for some way to hold on to value, and that means they rush to exchange their largely fictitious money for something real, a real good. Thus inflation serves to heighten the already frantic pace of modern life, a pace that further disorients people and undermines whatever sense of stability they may still have.

Mann also shows how inflation disrupts the social order,

producing as it does a huge underground transfer of wealth. Those people who had worked hard and put their money in the bank saw their savings become worthless almost overnight. Mann documents the fall of the middle class in the case of the Hinterhofers:

> two sisters once of the lower middle class who, in these evil days, are reduced to living "*au pair*" as the phrase goes and officiating as cook and housemaid for their board and keep. (p. 191)

Mann shows how hard it is for these women to live with their sense of economic degradation, portraying the shame and bitterness of Cecilia Hinterhofer:

> Her bearing is as self-assertive as usual, this being her way of sustaining her dignity as a former member of the middle class. For Fräulein Cecilia feels acutely her descent into the ranks of domestic service. . . . She hands the dishes with averted face and elevated nose—a fallen queen. (p. 202)

A society composed of embittered people like the Hinterhofers is soon going to face major political problems, as the rise of fascism in Germany was to show.

At the same time as many people lost everything during the German inflation, some made their fortunes by taking advantage of the new economic conditions. Mann includes among the cast of characters the kind of speculators who profited from inflation:

> They lead . . . that precarious and scrambling existence which is purely the product of the time. There is a tall, pale, spindling youth, the son of a dentist, who lives by speculation.[9] . . . He keeps a car, treats his friends to champagne suppers, and showers presents upon them on every occasion. (p. 204)

Those who know how to exploit an inflationary situation can gain as much as others lose. As a result, inflation creates a topsy-turvy world. The fact that people are losing and making fortunes overnight is responsible for all the social confusions in "Disorder and Early Sorrow," such as Cornelius's inability to tell his son from his servant. In a world in which all distinct categories begin

to dissolve, a pervasive sense of relativism develops. Cornelius's convictions begin to weaken and he feels unable to take a stand against the opinions of the younger generation. In a frightening anticipation of today's tyranny of political correctness, the history professor retreats into an academic skepticism when faced with the fanaticism of youth, trying to make his lack of conviction masquerade as a form of broadmindedness:

> For in one's dealings with the young it behoves one to display the scientific spirit . . . in order not to wound them or indirectly offend their political sensibilities; particularly in these days, when there is so much tinder in the air, opinions are so frightfully split up and chaotic, and you may so easily incur attacks from one party or the other, or even give rise to scandal, by taking sides. (p. 207)

Worried about taking any sort of stand, Cornelius begins to question his most fundamental certainties: "And is there then no such thing as justice?" (p. 207). Mann thus shows how inflation ultimately has a political effect, eating away at the basic beliefs that give a grounding to social order. By undermining all sense of stability and value in Weimar Germany, inflation ultimately led to the rise of Hitler and Nazism.[10]

IV

Mann is as acute in portraying the psychological effects of inflation as he is in portraying the economic, social and political effects. As he shows, inflation fundamentally changes the way people think, forcing them to live for the moment. There is no use planning for the future, since inflation, especially hyperinflation, makes future conditions uncertain and unpredictable. As Mises demonstrated, the most insidious effect of inflation is that it makes economic calculation nearly impossible. It thereby destroys the Protestant ethic, which ever since Max Weber has been viewed as linked to capitalism. What is the use of saving one's money if that money will soon become worthless as a result of inflation? As Mann shows, in an inflationary environment, the rational strategy is to spend your money as fast as you make it. Thus inflation works to shorten everyone's time horizons, destroying precisely those attitudes and habits that normally make the middle class hard workers and prudent investors, those forces that lead them to restrict

their present consumption for the sake of increasing future production.

This effect of inflation explains why youth has come to dominate the world of "Disorder and Early Sorrow," and why the older generation has lost its authority. The young are more adaptable to changing conditions, while the old are set in their ways. Hence the young cope better with inflation:

> the upper middle class . . . look odd enough . . . with their worn and turned clothing and altered way of life. The children, of course, know nothing else; to them it is normal and regular. . . . The problem of clothing troubles them not at all. They and their like have evolved a costume to fit the time, by poverty out of a taste for innovation: in summer it consists of scarcely more than a belted linen smock and sandals. The middle-class parents find things rather more difficult. (p. 182)

Mann notes that inflation even changes the way people dress, but, more importantly, he sees that it alters the dynamic between the generations in society, giving the young a huge advantage over the old. Not having experienced economic stability, the youth of Germany are more able to go with the inflationary flow.

In the person of Cornelius's servant, young Xaver, Mann portrays the perfect child of the inflationary era, the embodiment of its virtues and its vices:

> He is the child and product of the disrupted times, a perfect specimen of his generation. . . . The Professor's name for him is the "minute-man,"[11] because he is always to be counted on in any sudden crisis, . . . and will display therein amazing readiness and resource. But he utterly lacks a sense of duty and can as little be trained to the performance of the daily round and common task as some kinds of dog can be taught to jump over a stick. (pp. 202–3)

Xaver has the adaptability to changing conditions demanded by the era of inflation, but the price he pays for that is the total loss of the discipline once prized in German society. His lack of feeling for the past of course disturbs his master, the history professor, but as a child of inflation Xaver is constantly plunging

into the future:

> Dr. Cornelius has often told him to leave the calendar alone, for he tends to tear off two leaves at a time and thus to add to the general confusion. But young Xaver appears to find joy in this activity. (p. 203)

In a world in which the young are leaping into the future two days at a time, the old become increasingly irrelevant. Economists have long recognized that inflation is particularly cruel to the elderly in society, especially retired people who live on fixed incomes, which cannot keep pace with inflation. Mann fills in our sense of the psychological disruptions that accompany the economic ravages of inflation. More than any other factor, inflation discredits the authority of the older generation and turns power over to youth. It is not simply a matter of the old losing their economic advantage over the young. In an inflationary environment, all the normal virtues of the old suddenly start to work against them, while all the normal vices of the young suddenly seem to look like wisdom. Conservatism and a sense of tradition make it impossible to respond to rapidly changing economic conditions, while the profligacy of youth becomes paradoxically a kind of prudence in an inflationary environment. Mann's genius is to show how all the characteristics of the world in "Disorder and Early Sorrow" flow from the new economic facts of life. One still needs to turn to economists like Mises to understand the causes and the full economic ramifications of inflation. But what Mann does for us is to show the human reality of the phenomenon, how it alters not just economic conditions but the very fabric of everyday life, right down to the psyches of young children.[12] Elbe's premature infatuation with Max is the emotional equivalent of inflation.

V

In addition to all its economic, social, political, and even psychological consequences, inflation in Mann's view works to undermine the basic sense of reality.[13] In the world of inflation, reality begins to attenuate. As we have seen, even an eight-thousand-mark beer is watered down. For a variety of reasons, prices cannot always be raised to keep pace with inflation; hence producers are forced to cheapen their products,

to adulterate them. Mann portrays a pervasive cheapening of the world in "Disorder and Early Sorrow." Cornelius thinks of himself as a gentleman, but in his straitened circumstances, he cannot help cutting corners, even when offering cigarettes to his guests:

> He . . . takes a box from his supply in the cupboard: not the best ones, nor yet the brand he himself prefers, but a certain long, thin kind he is not averse to getting rid of—after all, they are nothing but youngsters. (p. 198)

Typically in this inflationary environment, things end up in a state of disrepair, as normal economic channels become disrupted:

> The basin has been out of repair for two years. It is supposed to tip, but has broken away from its socket on one side and cannot be mended because there is nobody to mend it; neither replaced because no shop can supply another. (p. 193)

Once one realizes what is going on in "Disorder and Early Sorrow," one can see how the opening of the story is emblematic of the world Mann is portraying:

> The principal dish at dinner had been croquettes made of turnip greens. So there follows a trifle, concocted out of those dessert powders we use nowadays, that taste like almond soap.[14] (p. 179)

Clearly inflation is adversely affecting the diet of Mann's characters, but something more significant becomes evident here. Cornelius and his family live in a world in which they do not have desserts anymore, they have dessert substitutes. Forced to economize by inflation, these people can no longer afford the real thing:

> These consult together meantime about the hospitality to be offered to the impending guests. The Professor displays a middle-class ambitiousness: he wants to serve a sweet—or something that looks like a sweet. (p. 182)

We are all familiar with this kind of food substitute, an

artificial product that is always presented as superior to the real thing, but that is in fact merely cheaper (and perhaps less fattening). Such substitutes are characteristic of life in the twentieth century, and Germany, with its advanced chemical industry, led the way in developing them, so much so that we have taken the German word for substitute, *Ersatz*, into our language.

Thus in his ultimate indictment of the monetary policies of the Weimar Republic, Mann shows how inflation contributes to the ersatz reality of the twentieth century. We have come to live in a world of plywood rather than mahogany. Things are not real anymore; we are surrounded by clever (and cheap) substitutes, mere simulacra of the real things. Mann fills up the story with artificial substitutes, from the false teeth of the children's nurse (p. 189) to the fake leather in Hergesell's shoes:

> They are the tightest I've ever had, the numbers don't tell you a thing, and all the leather today is just cast iron. It's not leather at all. (p. 195)

The artificially heightened pace of the inflationary economy produces more and more irrationalities, including increasing deception in the marketing of commodities. Much of what is traditionally and mistakenly regarded as the duplicity of capitalism is in fact the result of government intervention in the market in the form of tampering with the money supply. As Mann shows, it is primarily the government-induced process of inflation that eats away at the substance of reality in the modern world.

To be sure, one cannot blame everything on inflation. Already in the nineteenth century, Alexis de Tocqueville had noted the tendency of democracies to produce a cheapening of products:

> The handscraftsmen of democratic ages not only endeavor to bring their useful productions within the reach of the whole community, but strive to give to all their commodities attractive qualities that they do not in reality possess. In the confusion of all ranks everyone hopes to appear what he is not. . . . To satisfy these new cravings of human vanity the arts have recourse to every species of imposture.[15]

Thus even before the paper money inflations of the twentieth century, one could detect a movement of the modern economy toward the simulacrum in place of the real thing. De Tocqueville reminds us that economic developments often have political causes, and many of the tendencies Mann portrays in "Disorder and Early Sorrow" can be attributed to the abrupt democratization of Germany after World War I. But Mann shows how inflation works to hasten and heighten these tendencies, forcing people to economize by accepting substitutes in a desperate attempt to maintain the shadow of their former standard of living.

With his novelist's feel for the texture of everyday life, Mann senses the connection between the world of inflation and the world of the modern media. The government creates an illusion of wealth by tampering with the fiduciary media; the communication media similarly contribute to the creation of an all-pervasive world of illusion. Writing in the 1920s, Mann is already aware of how modern technology and the increasingly mediated character of modern life create new possibilities of deception. Every medium of communication is potentially a medium of miscommunication. In the masquerades of Bert and Ingrid, the telephone has become an important medium:

> The telephone plays a prominent part . . .: they ring up any and everybody—members of government, opera singers, dignitaries of the Church—in the character of shop assistants, or perhaps as Lord or Lady Doolittle. They are only with difficulty persuaded that they have the wrong number. (p. 184)

The telephone is an example of how the modern communication media create an illusion, the illusion of immediacy. Bert and Ingrid enjoy the sensation of seeming to be in touch with the great public figures of their day, but in a sense, they are as much deceived as the people they try to fool. They think that they are dealing directly with these famous people, but in fact the telephone stands inbetween them; otherwise their deception would not work. Thus any relationship they establish over the phone is inevitably phony; as the German idiom for "wrong number" more forcefully suggests, they are "falsch verbunden" (p. 624), falsely connected.

In a telephone conversation, one does not see the person one is talking to, but has the illusion of being in his presence.

Similarly, in a paper money economy, one does not see gold anymore, but the currency gives the illusion of the presence of wealth. The increasingly mediated character of the modern economy, especially the development of sophisticated financial instruments, allows the government to deceive its people about the nature of its monetary policy. When a government tries to clip coins or debase a metal currency, the results are readily apparent to most people. By contrast, the financial intermediation involved in modern central banking systems helps to shroud monetary conditions in mystery. At least initially the techniques of deficit financing and monetarization of debt conceal from the public what is happening to the money supply. Just as the jokes of Bert and Ingrid work only because the people they call cannot *see* them, the Weimar government's inflation worked only because it was hidden behind the smokescreen of modern central banking; with paper money one cannot at first see how the currency is being debased. As Mises has shown, the whole of inflationary policy depends on the confusion in any system of indirect exchange between money and capital, the illusion that pieces of paper are somehow really wealth.

Mann sees the pervasive inauthenticity of the modern world even in the music of the young people, who listen not to real live performances, but to mechanical reproductions on the gramophone. In the "new world" created by the gramophone (p. 198), music from all over the globe begins to blend together, and one loses sight of national origins (pp. 198, 199), or the distinction between authentic folk songs and popular hits (pp. 200–1). Seeming to make music from the whole world simultaneously available, the gramophone creates a false aura of cosmopolitan sophistication and thus adds to the sense of cultural relativism:

> They move to the exotic strains of the gramophone . . .: shimmies, foxtrots, one-steps, double foxes, African shimmies, Java dances, and Creole polkas. (p. 204)

Everywhere one looks in "Disorder and Early Sorrow," one sees illusions substituting for reality. The flight from the world of reality is best illustrated by Xaver's fanciful escape into the world of the cinema:

> With his whole soul he loves the cinema. . . . Vague hopes stir in him that some day he may make his

> fortune in that world . . .—hopes based on his shock of hair and his physical agility and daring. He likes to climb the ash tree in the front garden. . . . Once there he lights a cigarette and smokes it as he sways to and fro, keeping a lookout for a cinema director who might chance to come along and engage him. (p. 203)

Here Mann anticipates what was to become the Hollywood myth of being discovered in Schwab's drugstore. Such dreams are bred by an inflationary economy, which thereby corrupts the ambitions of youth. The young man fantasizes about making his fortune in the movies because he can only imagine becoming wealthy by making one big killing. In an inflationary environment, one must dream of becoming an overnight success because the slow steady way of amassing a fortune by working hard simply will not work. As Mann senses, the moving picture is the perfect art form for the age of inflation: a kinetic art for a kinetic era. He shows how the movies are already saturating everyday life; in his choice of cigarettes, Xaver smokes "a brand named after a popular cinema star" (p. 180). In the illusory world fostered by inflation, an image on a screen now works to shape a man's desires.

VI

The references to telephones, gramophones, and motion pictures in "Disorder and Early Sorrow" build up a sense of how mediated modern life has become, how much we are surrounded by artificial reproductions and representations of life. Ultimately the issue of representation becomes central in Mann's story. Studying it carefully, we can see how a reconception of representation has occurred in our century, a major shift in our way of thinking that can be correlated with the shift to paper money and inflationary policies. In the older sense of money, a banknote referred to something outside itself. Under the gold standard, a dollar bill represented a fixed amount of gold, on deposit somewhere and obtainable on demand. That is what it meant to have a currency backed by gold—a paper banknote was redeemable in terms of a real commodity, namely gold, something that had independent value. But in the modern era of fiat money, a banknote just represents another banknote. One dollar bill can merely be exchanged for another dollar bill, but such a transaction has no

point anymore, once no real commodity backs the currency. In the modern paper money system, money does not represent anything outside itself; money only represents itself.[16]

What is fascinating is that this change in the concept of representation in fiat money sounds like the prototype for the new concept of representation in modern art. Modern artists pride themselves on their discovery of the principle of non-representational art. Ask a modern painter what his scrawls on the canvas represent and he will patronizingly reply: "My painting doesn't represent anything external to it; it represents itself." Growing out of the nineteenth-century idea of art for art's sake, this attitude in modern art denies that the artist need refer to the external world; his works can exist within the self-contained world of art itself. The world of modern paper money is a similarly closed system. A currency with no commodity like gold backing it thus provides the model for the self-referentiality on which modern art prides itself.[17]

In a case like this it is difficult to speak of cause-and-effect. It would be simplistic to make a statement like: "Because we went off the gold standard, modern art became non-representational." One suspects that both developments have their roots in something deeper in modern life and modern culture, perhaps the democratization de Tocqueville traces. Still, it is worth considering that a change as fundamental as the switch from a commodity-based currency to fiat money might have widespread implications for a society, and might even affect basic cultural attitudes. If self-referentiality is really a defining characteristic of modern art, then perhaps the inflationary environment created by twentieth-century governments at least helped to foster the sense of irreality that pervades our culture. As money ceases to refer to anything real anymore, the traditional idea of referentiality is undermined. The architects of inflationary policy are to blame for many of the disasters, economic and political, of this century. "Disorder and Early Sorrow" suggests that we may also hold them responsible for the empty self-referentiality of much modern art.

Once art becomes severed from reality, artists turn to such notions as the surreal and the hyperreal as substitutes. The whole movement known as postmodernism grows out of the non-representational turn in modern art. We would have to go well beyond the boundaries of Mann's story to explore fully the relation between inflation and postmodernism.[18] One of the central notions of postmodernist theory is the idea of the

simulacrum, which we have already seen developed in "Disorder and Early Sorrow."[19] According to one definition, a simulacrum is a copy for which there is paradoxically no original.[20] But that is exactly the concept of fiat money. Under the gold standard, the dollar bill used to be the representation, for which a fixed amount of gold provided the original. In this situation, one could easily distinguish the representation from the original—the original was bright and shiny, while the representation was green and crumpled. But that kind of distinction is no longer possible in the world of pure paper money. One dollar bill merely represents another dollar bill—we are in a world of all copies and no originals.[21]

But this is exactly the kind of world Mann portrays in "Disorder and Early Sorrow," a world in which reality is constantly threatening to dissolve into mere representations of reality. Cornelius is distressed by his son's admiration for and imitation of the actor, Ivan Herzl:

> Bert has entirely succumbed to Herzl's influence, blackens the lower rim of his eyelids . . . and with youthful carelessness of the ancestral anguish relates that not only will he take Herzl for his model if he becomes a dancer, but in case he turns out to be a waiter at the Cairo he means to walk precisely thus. (p. 181)

In choosing an actor as his model, Bert ends up imitating an imitator, and thus threatens to become a mere simulacrum of a human being. What strikes Cornelius about Herzl is his total lack of authenticity; as an actor, he always seems to be putting on a show, and hence not to have any reality of his own:

> It all, no doubt, comes from his heart, but he is so addicted to theatrical methods of making an impression and getting an effect that both words and behavior ring frightfully false. (p. 197)

Already in the 1920s, Mann prophetically saw the inauthenticity coming to pervade modern society and modern culture, linking this development to the modern communication media, but understanding its link to fiduciary media as well. Indeed his model for the loss of authenticity in the modern world is the loss of the reality of money that inflation causes.[22]

I can offer one particularly apt example to try to corroborate

the connection I have been drawing between the epistemology of twentieth-century art and debates over paper money. At the core of post-modernism is the tendency to make the act of representation problematic. Postmodern images call attention to themselves, to the fact that they are merely images. In traditional art, the medium is, as it were, transparent; the artist wants us to look through his act of representation to the thing being represented, and hence does everything possible not to call our attention to his medium. But the postmodern artist throws a wrench into the process of representation, foregrounding his medium and thus making us concentrate on the act of representation itself, on the fact that we are watching something being represented. A famous example of this technique among the Surrealists, forerunners in many respects of postmodernism, is René Magritte's *The Treachery of Images* (Fig. 1). One of the many ways of reading the inscription on this clever painting is: "This is not a pipe; this is merely a representation of a pipe." Magritte short-circuits any tendency we might have to confuse the representation of a thing with the thing itself by explicitly calling attention to his act of representing the thing.[23] The painting leaves us with a lingering sense of the inadequacy and even the duplicity of all acts of representation.

Figure 1
"This Is Not A Pipe"
Source: Original title *La Trahison des Images* (*Ceci n'est pas une Pipe*). René Magritte. Oil on canvas 60. x 81.3 cm. Los Angeles County Museum of Art.

Magritte's painting, done in 1928–29, seems a perfect

example of avant-garde art, the kind of work that could only be produced in the twentieth century. And yet it bears a striking resemblance to a famous cartoon by Thomas Nast, drawn as an illustration to David Wells's book, *Robinson Crusoe's Money*, first published in 1876 (Fig. 2). Wells's book was an attack on the paper money inflation brought about by the Civil War. He uses a Crusoe fable to expose the folly of the common people's belief in the reality of paper money:

> But the latter term was conceded to be but a mere fiction of speech and a bad use of language, for every intelligent person at once saw that a promise to deliver a commodity . . . could not possibly be the commodity or the thing itself, any more than . . . the picture of a horse [is] a horse.[24]

Figure 2
Milk-Tickets for Babies, in Place of Milk
Source: David Wells, *Robinson Crusoe's Money; or, the Remarkable Financial Fortunes and Misfortunes of a Remote Island Community* (New York: Harper & Brothers, 1876), p. 57.

Nast's illustration brilliantly captures the heart of this argument by surrealistically confusing things with representations of things. Like Magritte, Nast reminds us that a picture of a cow is not actually a cow, but he is not making a merely aesthetic statement. He is drawing a more serious analogy between the duplicity involved in artistic representation and the duplicity involved in the government printing money and forcibly establishing it as legal tender, an analogy embodied in the parallel: "This is a Cow By the Act of the Artist" and "This is Money by the Act of Congress."[25] Experiencing the Union Greenback inflation, Nast was led to question the reality of representation without benefit of having read Nietzsche. As in "Disorder and Early Sorrow," an inflationary environment raises the issue of the authenticity of representation in a way that provokes an artist to think about the illusions involved in his own craft.[26]

VII

"Disorder and Early Sorrow" may be just a short story, but, as I have tried to show, it is remarkable how complete a portrait of the modern world Mann is able to pack into this brief work, and how rich it is in economic detail. With his attention to the consequences of inflation for daily life, Mann provides a useful supplement to Mises's brilliant economic analysis of the phenomenon. Mises explains what happened in Weimar Germany; Mann gives a sense of how it felt to ordinary people, and in that way may help to convince his readers of the full horror of inflation. Though it may be a rare case, I offer this discussion of "Disorder and Early Sorrow" as an example of how an economic but non-Marxist analysis of literature is possible. Only if one approaches the story armed with the correct analysis of inflation supplied by Mises can one see what its true significance is and what its larger implications are. What is particularly interesting about the story is that it portrays the same world that modernist texts usually do, but offers a different explanation of the characteristics of that world. Mann traces the feeling of modern man that the ground has been pulled out from beneath his feet, not to some metaphysical principle of human life itself, but to the effects of a specific government policy, namely inflation. Moreover, he suggests that the inauthenticity of modern life, which has often been blamed on capitalist practices such as advertising, is more properly viewed as the result of the

inflationary environment created by government. The Marxist critics who today dominate humanities departments act as if all economic analysis of literature must yield (for them) comfortingly leftwing conclusions. An Austrian economic analysis of "Disorder and Early Sorrow" shows that many of the problems characteristic of modern life are not, as literary critics tend to claim, the product of private enterprise, but rather of that very government intervention in the economy Marxists always recommend.

The twentieth century could be called the Age of Inflation, [27] the Age of Paper Money, and "Disorder and Early Sorrow" suggests how this fact is related to the prevailing sense of inauthenticity in our time, the sense of a lack of reality and a loss of value. Critics often search as if puzzled to answer the question: how could authors such as Kafka come up with a view of the world as so absurd? The fact is that in its day-to-day consequences the German inflation of the 1920s was far more absurd than anything Kafka could dream up. When Gregor Samsa turns into an insect, it certainly introduces an element of craziness into his household, but at least the money his parents put away in the bank retained its value and allowed life to go on for his family, and when his sister went to do the shopping, she did not need a wheelbarrow to carry the banknotes necessary just to buy a loaf of bread.

It would of course be wrong to blame the development of the idea of the Absurd in modern literature purely on inflation. After all, we can find the Absurd in the literature of countries which never went through anything like the German hyperinflation (though it would be impossible to find any country in this century unaffected by inflation, not even Switzerland; in the modern world, we are always talking only about *relative* rates of inflation; inflation is the most pervasive economic fact of our time). Still, "Disorder and Early Sorrow" gives us much food for thought, and leads us to ask how much of an impact this all-pervasive economic phenomenon has had on modern literature and ways of thinking. Taking our cue from Mann, we begin to question whether inflation may in fact be an even more insidious phenomenon than we have realized, fundamentally altering our world and the way we view it.

Thus in a way very different from Marxist approaches,[28] Mann suggests a connection between the spiritual history of the twentieth century and the economic, making us wonder whether the world became merely an image when money became merely

an image. As I said at the beginning, deconstructionist and poststructuralist theories paved the way for Marxist takeovers of humanities departments by calling into question any standards of truth and reality, and thus making the demonstrable failure of socialist economic policies in the real world seem irrelevant in the thinking of literature professors. But analysis of "Disorder and Early Sorrow" suggests that these very theories do not, as they claim, provide insight into the human condition as such, but are in fact just a response to specific economic conditions in the twentieth century, the Age of Inflation. Theorists who triumphantly proclaim the illusoriness of human existence are merely reflecting the world created by government monetary policy, the web of illusions endemic to the era of paper money. In a strange way, one may say that Foucault, Derrida, and the other poststructuralists are right; they have evolved a philosophy appropriate to the Age of Inflation, the age when money itself comes to represent nothing, and hence all representation becomes problematic. The mistake occurs when these philosophers universalize from their limited historical experience, and see the world brought about by Keynesian economics as co-extensive with human life in general. Reading Mann's story can help remind us that it is not human life as such that is unreal—it is the money our governments have surreptitiously imposed upon us in an inflationary policy that has caused our sense of reality itself to attenuate in the twentieth century.

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[1] Richard Rorty, "For a More Banal Politics," *Harper's Magazine*, May 1992, p. 18.

[2] I quote "Disorder and Early Sorrow" in the translation of H. T. Lowe-Porter, from Thomas Mann, *Death in Venice and Seven Other Stories* (New York: Vintage, 1989). When referring to the German original, I quote from Thomas Mann, *Gesammelte Werke* 13 vols. (Frankfurt: S. Fischer, 1974), vol. 8. Lowe-Porter's translation is filled with minor errors, omissions, and additions, which I have not bothered to correct, except where they have a bearing on interpreting Mann's intentions.

[3] Although "Disorder and Early Sorrow," is frequently

referred to as a novella, and has many of the characteristics of the form, it seems to me brief enough to be properly called a short story. As for its seeming lack of substance, Henry Hatfield, for example, rather patronizingly says that the story "is one of Mann's less ambitious pieces, yet within its limits one of his most successful." See Henry Hatfield, *Thomas Mann* (Norfolk, Conn.: New Directions, 1951), p. 87. Although "Disorder and Early Sorrow" has been popular with readers, and is frequently anthologized, it has attracted little attention from critics. Few essays have been devoted to it specifically, and most general studies of Mann mention it only in passing. If they discuss it at all, critics usually choose to concentrate on the autobiographical aspects of the story. Evidently Mann based the story largely on a party actually given in his own household in Munich. See the account of his son: Michael Mann, "Truth and Poetry in Thomas Mann's Work" in *Thomas Mann*, Harold Bloom, ed. (New York: Chelsea House, 1986), pp. 292–93. Some critics discuss the Freudian implications of the relationship between the father and the daughter in the story. Herbert Lehnert develops a brief but interesting interpretation of the story as involving an inversion of the structure of *The Magic Mountain*; see *Thomas Mann: Fiktion, Mythos, Religion*, 2nd ed. (Stuttgart: W. Kohlhammer, 1968), p. 97.

[4] Though some critics acknowledge in passing the fact that "Disorder and Early Sorrow" is set in the time of the German inflation, it is surprising how little critics make of the importance of economic factors in the story. Hans Eichner, *Thomas Mann: Eine Einführung in Sein Werk* (München: Lehnen, 1953), p. 64, relates Ellie's tantrum to "die allgemeine Verwirrung der Inflationsjahre" ("the general confusion of the inflation years"), but says nothing further. The fullest discussion in English of the story I have been able to locate mentions inflation just once, and then as only one of many examples of disorder in the story. See Sidney Bolkovsky, "Thomas Mann's 'Disorder and Early Sorrow': The Writer as Social Critic," *Contemporary Literature* 22 (1981): 221. In a brief essay on the story, Mann himself stressed its personal and psychological elements, but he also expressed his satisfaction that it had appeared in French translation under the title "Au temps de l'inflation," which he says is in accord with the author's intention and meaning ("nach des Verfassers Absicht und Meinung"). He was happy that in foreign countries the story was being understood as "a document of middle-class German life after the war" ("als Dokument deutsch-bürgerlichen

Nachkriegsleben"). See "Unordnung und frühes Leid," *Gesammelte Werke*, 11: 621. When Mann described the story in a letter, he called it: "'Unordnung und frühes Leid,' eine Inflationsgeschichte" ("a history of inflation" or "an inflation story"). Letter to Hans Heinrich Borcherdt, March 3, 1926, as quoted in Esther H. Leser, *Thomas Mann's Short Fiction: An Intellectual Biography* (Rutherford, N.J.: Fairleigh Dickinson University Press, 1989), p. 304, n. 50.

[5] The terms *hyperreality* and *hyperrealism* originated in art criticism. They refer to a style of painting so photographically realistic that it in fact makes the work look unreal. The terms have been given a broader meaning in contemporary discourse by such writers as Jean Baudrillard, who sees the whole world we live in as hyperrealistic in its pervasive artificiality: "The unreal is no longer that of dream or of fantasy, . . . it is that of a *hallucinatory resemblance of the real with itself*"; "*It is reality itself today that is hyperrealist*" (italics in the original). See Jean Baudrillard, *Simulations*, Paul Foss, Paul Patton, and Philip Beitchman, trans. (New York: Semiotext[e], 1983), pp. 142, 147. For a more popular account of the contemporary idea of hyperrealism, see Umberto Eco, *Travels in Hyperreality*, William Weaver, trans. (New York: Harcourt Brace, 1986), pp. 3–58.

[6] For example, in his influential and widely praised study, *Weimar Culture* (New York: Harper & Row, 1968), the historian Peter Gay typically mistakes the effects of inflation for the causes: in his view the Weimar inflation was "caused by a shortage of gold, adverse balance of payments, and the flight of capital" (p. 152); only later in his account does he even refer, and then merely in passing, to the government's "printing of money" (p. 154). For a recent historical account of Weimar Germany that confirms the Austrian theory of the inflation, see Stephen A. Schuker, *American "Reparations" to Germany, 1919–33: Implications for the Third-World Debt Crisis* (Princeton, N.J.: Princeton University Press, 1988), p. 20: "a budget deficit that could not be financed except through the issue of floating debt discounted by the Reichsbank represented the real engine of inflation."

[7] The relevant passage in Macaulay can be found in Chapter 19 of his *History of England*. See *The Works of Lord Macaulay* (London: Longmans Green, 1898), vol. 5, pp. 335–49. That Mann had recently been reading this section when he wrote "Disorder and Early Sorrow" is suggested by a verbal echo; at one point Macaulay speaks of "the lamp of Aladdin" (p. 346),

while in the German Mann refers to “Aladin mit der Wunderlampe” (p. 646); the parallel seems weaker in the translation, where Lowe-Porter merely speaks of “Alladin” (p. 204). In this section of his history, Macaulay discusses the moment when the British Parliament created the national debt to deal with the budget deficits it had incurred, chiefly in financing wars. Mann undoubtedly saw the parallels to the situation in Germany after World War I. Macaulay praises deficit financing as a wonderful contrivance for national prosperity; Mann had less cause to be this sanguine about its effects.

[8] In German, “die Flucht in die Sachwerte”; see Ludwig von Mises, *Human Action* (New Haven, Conn.: Yale University Press, 1949), p. 424.

[9] The German here is more specific—the character is a *Börsenspekulant*, a “stock market speculator” (p. 646).

[10] It may seem extreme to blame the rise of Hitler on the German inflation, but for an insightful discussion of the connection between inflation and Nazism, see Elias Canetti, *Crowds and Power*, Carol Stewart, trans. (New York: Seabury, 1978), esp. pp. 187–88. Canetti even links the devaluation of human life represented by the Holocaust directly to the German inflation. For Mises’s own frank account of Weimar politics, and the role of inflation in the rise of Nazism, see his *Omnipotent Government: The Rise of the Total State and Total War* (New Haven, Conn.: Yale University Press, 1944), pp. 193–228.

[11] Here the English translation is in some ways more appropriate than the original German. Mann has Cornelius speak of Xaver as *Festordner* (p. 645), “master of ceremonies,” not “minute-man.”

[12] Mann was of course not the only writer of his day who portrayed the effects of inflation, though it is surprising how little attention literary critics have paid to this phenomenon. I have been able to locate only one brief article that deals with the depiction of the 1920s inflation in literature; appropriately it treats Austrian authors. See Friedrich Achberger, “Die Inflation und die zeitgenössische Literatur,” in *Aufbruch und Untergang: Österreichische Kultur zwischen 1918 und 1938*, Franz Kadrnoska, ed. (Vienna: Europa, 1981), pp. 29–42. Achberger lists 33 Austrian literary works with the inflation as their theme, including works by such well-known authors as Heimito von Doderer, Robert Musil, and Stefan Zweig. From Achberger’s descriptions, these works evidently have much in common with “Disorder and Early Sorrow.” Achberger mentions that Mann’s

brother, Heinrich, also wrote a novella dealing with the inflation period called *Kobes* (1925); Hugo Stinnes, the German industrialist who profited heavily from the inflation, provides the model for this work. Rolf Linn remarks: "This makes 'Kobes' unique, for the vast literature about the turbulent post-war years in Germany—all but forgotten with the exception of Thomas Mann's 'Disorder and Early Sorrow'—deals largely with the victims of the rapid devaluation of the mark." See Rolf Linn, *Heinrich Mann* (New York: Twayne, 1967), p. 83.

[13] An interesting literary parallel can be found in the third part of Hermann Broch's trilogy *The Sleepwalkers*, Willa and Edwin Muir, trans. (New York: Grosset & Dunlap, 1964). His character Huguenau finds his world unhinged by the process of inflation: "Currency hitherto accepted becomes incalculable, standards fluctuate, and, in spite of all the explanations that can be adduced to account for the irrational, what is finite fails to keep pace with the infinite and no reasonable means avail to reduce the irrational uncertainty of the infinite to sense and reason again" (p. 640). Economics had represented the world of rationality to Huguenau, but inflation turns that rationality into irrationality: "even that most characteristic mode of the bourgeois existence, that partial system which is hardier than all others because it promises an unshakable unity in the world, the unity that man needs to reassure his uncertainty—two marks are always more than one mark and a sum of eight thousand francs is made up of many francs and yet is a whole, a rational organon in terms of which the world can be reckoned up—even that hardy and enduring growth, in which the bourgeois desires so strongly to believe even while all currencies are tottering, is beginning to wither away; the irrational cannot be kept out at any point, and no vision of the world can any longer be reduced to a sum in rational addition" (p. 641).

[14] The German original (p. 618) is much stronger in conveying a sense of impoverishment; it should be translated: "As main course there were only vegetables, cabbage-cutlets; after that followed a *Flammeri*, composed out of one of those pudding powders one buys now, that taste like almond and soap." A *Flammeri* is a blanc-mange or trifle, but the word also conveys the sense of flummery or deception. Mann uses *Flammeri* in precisely that sense a few pages later (p. 621).

[15] Alexis de Tocqueville, *Democracy in America*, Henry Reeve, Francis Bowen, and Phillips Bradley, eds. (New York: Vintage, 1959), vol. 2, p. 53. De Tocqueville illustrates this

principle with a personal anecdote: “When I arrived for the first time in New York . . . I was surprised to perceive along the shore . . . a number of little palaces of white marble, several of which were of classic architecture. When I went the next day to inspect more closely one which had particularly attracted my notice, I found that its walls were of whitewashed brick, and its columns of painted wood. All the edifices that I had admired the night before were of the same kind” (p. 54). For further thoughts on the connection between democracy and the simulacrum, see Baudrillard, pp. 78–79. Contemporary French thinkers might be surprised to learn how many of their ideas were anticipated by their aristocratic countryman in the nineteenth century.

[16] To be sure, as long as people have faith in a paper currency, it can be exchanged for real commodities, and in that sense can still be said to represent value. But as the quick collapse of paper currencies like that of Weimar Germany shows, their “reality” is highly attenuated compared to that of gold-backed currencies.

[17] Consider in this context Samuel Beckett’s famous formulation of the non-representational character of modern art: “there is nothing to express, nothing with which to express, nothing from which to express, no power to express, no desire to express, together with the obligation to express.” See Samuel Beckett, “Three Dialogues,” *Disjecta* (New York: Grove, 1984), p. 139. With one substitution, this passage becomes an excellent characterization of the world of paper money as legal tender: “there is nothing to exchange, nothing with which to exchange, nothing from which to exchange, no power to exchange, no desire to exchange, together with the obligation to exchange.”

[18] In *The Post-Modern Aura: The Act of Fiction in an Age of Inflation* (Evanston, Ill.: Northwestern University Press, 1985), Charles Newman attempts to relate postmodernism to the prevalence of inflation in the twentieth century. This book is the most serious attempt I know of to discuss the cultural implications of inflation; see especially pp. 6–7, 187–90, or his summary statement (p. 184): “In cultural matters, inflation abstracts anxiety, suspends judgment, multiplies interpretation, diffuses rebellion, debases standards, dissipates energy, mutes confrontation, undermines institutions, subordinates techniques, polarizes theory, dilates style, dilutes content, hyperpluralizes the political and social order while homogenizing culture. Above all, inflation masks stasis.” Unfortunately the book is seriously weakened by Newman’s inability to develop a sustained

argument; he comes up with some brilliant insights, but fails to develop them systematically. He is also woefully ignorant of economic truth, especially about the nature of inflation, which he claims "is primarily caused not by . . . monetary policy or government spending . . . but by inflationary assumptions anticipated by the entire culture" (p. 167), another case of mistaking the effects of inflation for the cause. One would be hard pressed to find a stupider statement than Newman's judgment on free markets: "every seller constitutes a monopoly to the degree that he has the power to increase prices without affecting sales, and such pricing institutions are not on the whole undesirable, as pure price competition would be totally disruptive of the economy" (p. 165). When literary critics are as ignorant of economic truth as this, it is hardly surprising that their economic analyses of culture are confused. Still, Newman is the only critic I know of who has understood how pervasive and insidious a force inflation has been in twentieth-century culture.

[19] For a general study of the role of the simulacrum in Mann, see Berhard J. Dotzler, *Der Hochstapler: Thomas Mann und die Simulakren der Literatur* (München: Wilhelm Fink, 1991).

[20] The idea of the simulacrum is very important in contemporary French thought, particularly in Baudrillard. In *Simulations*, he defines the simulacrum as "the generation by models of a real without origin or reality: a hyperreal" (p. 2), "a liquidation of all referentials . . . substituting signs of the real for the real itself" (p. 4).

[21] That is of course why it is easier to inflate a pure paper currency as opposed to a gold-backed currency. To see how close this situation is to the world of simulacra conceived by Baudrillard, consider his characterization: "The relation between them is no longer that of an original to its counterfeit. . . . objects become undefined simulacra one of the other" (p. 97). That Baudrillard himself senses a connection between his notion of the simulacrum and paper money is shown by the fact that he often speaks of the *circulation* of simulacra; his description of Los Angeles, for example, is an apt characterization of the modern money supply: "a network of endless, unreal circulation" (p. 26; see also pp. 11, 32). Baudrillard makes the connection explicit when he compares the process of simulation to "the floating of currency" (p. 133). It is a curious historical coincidence that the poststructuralists' obsession in the 1970s with what they called "free-floating signifiers" roughly coincided with the end of the gold-exchange standard, which resulted in the free floating of

national currencies, wholly uncoupled from any tie to gold.

[22] My poststructuralist colleagues must by now be having a good laugh at my epistemological naïveté in talking about the reality of money; since all money involves an act of representation, they would argue, it is ridiculous to speak of one form of money as being more real than another, and hence I am simply mired in an archaic fetishizing of gold. But making the distinction between a pure paper currency and a gold-backed currency need not involve any essentialist claims about the metaphysical reality of one form of money as opposed to another. In this as in other areas, Austrian economics proves itself to be more subjective in its view of reality than alternate theories (especially Marxism, with its objectivist labor theory of value). For Austrian economics "real" money is simply money the market accepts on its own as real; as Mises shows, any good accepted as money must at least originally have had an exchange value independent of its use as money, that is, it must be a commodity like gold that is subjectively valued for reasons other than its use as a medium of exchange. The opposite of this kind of money is money that the government must force people to accept (legal tender laws). Thus, far from being essentialist, this distinction is purely pragmatic, simply reflecting how people in fact behave. Indeed, long after all governments have abandoned the gold standard, and even labored mightily to demonetize gold, people around the world continue to insist upon treating gold as a form of money, whereas many legal tender currencies are treated as worthless paper by people outside the authority of the governments issuing them. If my colleagues want to persist in claiming that there is no way to view one form of money as more real than another, I have some rubles I would like to trade them at face value for Krugerrands.

[23] For a discussion of this painting, and others like it by Magritte, see Suzi Gablik, *Magritte* (New York: Thames and Hudson, 1985), pp. 124–31. The importance of this painting to poststructuralism is shown by the fact that Michel Foucault wrote a long essay about it, published in English as *This Is Not a Pipe*, James Harkness, trans. and ed. (Berkeley: University of California Press, 1983). Foucault suggests several interesting ways of reading the statement "This is not a pipe." He also connects Magritte's painting to the idea of the simulacrum: "Resemblance predicates itself upon a model it must return to and reveal; similitude circulates the simulacrum as an indefinite and reversible relation of the similar to the similar" (p. 44), once

again a peculiarly apt characterization of the illusory world of paper money.

[24] David A. Wells, *Robinson Crusoe's Money; or, the Remarkable Financial Fortunes and Misfortunes of a Remote Island Community* (New York: Harper & Brothers, 1876), p. 57. This fascinating book presents a view of the evolution of money very similar to that developed by Austrian economics, and offers a cogent defense of the gold standard (unfortunately Wells's argument is weakened by his clinging to the labor theory of value and his ignorance of the law of marginal utility). I learned of this book from reading Walter Benn Michaels, *The Gold Standard and the Logic of Naturalism* (Berkeley: University of California Press, 1987), pp. 145–47. Michaels's book is one of the most famous examples of the so-called New Historicism, the kind of deconstructed Marxism that currently dominates literature departments, largely derived from the thinking of Foucault. Michaels develops an intriguing argument about the relation between the gold standard and the concept of representation in nineteenth-century America, in some ways similar to the line I am pursuing. But Michaels cannot take the gold standard seriously, and regards as naive any attempt to distinguish "real" from "fake" money. On p. 147, he writes: "in insisting that 'good money' must 'of itself possess the full amount of the value which it professes on its face to possess' (p. 26), writers like Wells were insisting that the value of money as money be determined by (and indeed identical to) the value of money as the commodity it would be if it weren't money." Here Michaels reveals his ignorance of economics and his inability to follow Wells's argument. Like the Austrians, Wells argues that money must originally have been a commodity with its own value, but he is perfectly aware that it acquires a new and additional value once it starts to function as a medium of exchange. Michaels is blind to the whole point of the bimetallism controversy he is discussing; if the demonetization of silver in 1873 disastrously lowered the price of silver, as Michaels himself indicates (pp. 144, 175), then there must be a separate component in the value of any commodity serving as money that corresponds specifically to its monetary function, as all the parties to the bimetallism debate acknowledged, including Wells. Michaels's failure to understand this simple point of economics vitiates his whole argument. Given how much contemporary literary critics speak about economic matters, it is astounding how ignorant they remain of economics.

[25] Thinking along the same lines, and trying to find an image for the misrepresentation involved in an inflated currency, Wells is led to imagine the twentieth-century world of the simulacrum, foreseeing the creation of ersatz products: “the painted cotton, silk, wool, and leather could be made to look so exactly like the real articles, that it was only when the attempt was made to exchange the representation for the real that the difference was clearly discernible” (p. 94).

[26] In a final twist on this subject, at the time of the German inflation, Dada artists used real banknotes to create works of art in their collages. Having become virtually worthless, the “real” banknotes turned into imaginary money, one might even say play money. The Hungarian artist, Moholy-Nagy, used a 100 billion mark note in one of his collages. See John Willett, *The Weimar Years: A Culture Cut Short* (New York: Abbeville, 1984), p. 42.

[27] This name has been given to the twentieth century by Jacques Rueff, *The Age of Inflation*, A. H. Meeus and F. G. Clarke, trans. (Chicago: Henry Regnery, 1964); see esp. p. 1.

[28] Mann himself drew this distinction in a public address: “man braucht nicht materialistischer Marxist zu sein, um zu begreifen, dass das politische Fühlen und Denken der Massen weitgehend von ihrem wirtschaftlichen Befinden bestimmt wird” (“one does not have to be a materialistic Marxist in order to grasp that the political feeling and thinking of the masses is largely determined by their economic condition”). See “Deutsche Ansprache: Ein Appell an die Vernunft,” *Gesammelte Werke*, 11: 871.

The Theory of the Firm: The Austrians as Precursors and Critics of Contemporary Theory

Nicolai Juul Foss

More than one commentator has observed that a distinct theory of *the firm* is conspicuously missing from the main body of Austrian economics (e.g., Langlois 1991, p. 2; Minkler 1991, p. 8). As two Austrian economists observed some years ago: "there is no subjectivist or Austrian theory of the firm" (O'Driscoll and Rizzo 1985, p. 123). That is still the situation.

With the term "theory of the firm," I shall set forth a theory that has something to say about the existence, the boundaries and the internal organization of the institution known as the business firm. And with the term "firm," I shall describe an organization that is planned with the express purpose of earning profit. In Hayekian terms (Hayek 1973), the firm is a "planned order," an aspect of "taxis." That social institutions have always occupied center stage in Austrian economics is a proposition that commands widespread agreement today (Hodgson 1988; Langlois 1986, 1991). Many economists recognize the distinctiveness of, for example, the Mengerian theory of the origin of a medium of exchange (Menger 1871, chap. 8), and probably even more economists are familiar with the Hayekian account of the information providing function of the price system (Hayek 1945). Many economists also know that Hayek's insight stemmed from his involvement in the socialist calculation debate, preeminently a debate about the *organization* of economic activities. Indeed, Hayek's "The Use of Knowledge in Society" has become a standard reference in the literature on economic organization (e.g., Ricketts 1987, p. 59; Milgrom and Roberts 1992, p. 56; Douma and Schreuder 1991, p. 9; Williamson 1985, p. 8, 1991, p. 160). More generally, many writers have pointed out the affinities to Austrian economics of much of what passes as "neo-institutionalism," viz. the analysis of social institutions with the aid of economic analysis (Langlois

1986).[1]

So the Austrians have at least since the beginning of the calculation debate with Mises (1920) theorized the organization of economic activities in alternative institutional forms.[2] But the institutions that have traditionally been confronted in Austrian economics are mainly central planning—either in its comprehensive or its market social-ism-manifestation—and private property rights-based market organization. This means that hierarchical direction taking place *within* a market economy has been comparatively neglected.[3] Along with many other economists, the Austrians could be seen as assimilating the message of Machlup (1967) that for the purposes of market analysis, one can make do with a very stylized (anonymous) conceptualization of the firm; and economics *per se* had no business breaking up the black box of the firm. In fact, Austrian analysis of market phenomena has even manifested a tendency to dispose of the concept of the firm, resting content with analyzing the extra-Robbinsian—as Israel Kirzner puts it—activities of the entrepreneur.[4]

As I shall show, however, it is something of a doctrinal puzzle that the Austrians have never formulated a theory of the firm. This is so because many of the analytical components that are necessary to tell a coherent story about why there should be firms in a market economy were present in Austrian theorizing long before they became standard fare in neoclassical economics. I have in mind concepts such as property rights (Mises 1936), specific and complementary assets (Hayek 1931), asymmetric information (Mises 1936; Hayek 1937), the distinction between planned and spontaneous orders (Hayek 1973), non-maximizing modes of behavior (Mises 1936; Hayek 1973; Kirzner 1973), and a basic understanding of the principal-agent relationship (Hayek 1935a, 1935b, 1940; Mises 1936).[5] These are among the concepts that have occupied center stage in recent attempts to place the theory of the firm on a solid economic footing (e.g., Alchian and Demsetz 1972; Williamson 1985).

This is not to say that the Austrians—had they pieced these concepts together—would necessarily have arrived at something similar or very close to the contemporary theory of the firm. The reason is fundamentally that whereas the modern theory of the firm has had a comparatively loyal relationship to mainstream neoclassical economics, the Austrians have consistently and continuously emphasized their differences from neoclassicism, at least as it took form after World War II. In particular, as the

Austrians like to emphasize, the concepts of *market process* and *entrepreneurship* are missing from neoclassical economics in general, and, I may add, from the contemporary theory of the firm in particular. What this implies is that there may be a potential for a distinct Austrian theory of the firm.

The way the ensuing pages proceed is the following. In the next section I present a brief overview of "Contemporary Theories of the Firm," concentrating on the mainstream approach in the contemporary theory of the firm. In "Austrians on Economic Organization," I present some prominent theories and argue that the Austrians anticipated many important modern developments in the theory of the firm. But as I argue in the sections on "An Austrian Critique of the Modern Theory of the Firm" and "Towards an Austrian Theory of the Firm," the Austrians are more than merely precursors; not only is Austrian economics at variance with the modern theory of the firm in some important respects ("An Austrian Critique of the Modern Theory of the Firm"), but it is also possible to construct a distinct theory of why there should be firms on an Austrian basis ("Towards an Austrian Theory of the Firm"). Although the Austrians had (and have) a number of the essential ingredients of the theory of the firm, an Austrian theory of the firm implies adding additional ingredients and piecing them together in ways that differ from the modern theory of the firm. This is the way I resolve the apparent tension in saying that the modern theory of the firm was both anticipated by Austrians and implicitly critiqued by them.

In other words, the purposes of this article are historical, critical and constructive, respectively. But in all three tasks, I basically adopt a method of "rational reconstruction": The Austrians can be "reconstructed" as (1) anticipating modern developments, as (2) simultaneously providing a critique of them, and, finally, as (3) having their own distinct perspective on economic organization.

Contemporary Theories of the Firm [6]

The Firm in Economics

The defining characteristic of the market economy is usually taken to be the organization of production and distribution through the price system. But the primacy of exchange is characteristic not only of the market economy but also of how

economists view their discipline (McNulty 1984, p. 233). In more specific terms, firms in neoclassical (perfect competition) price theory are often taken to be identical except in terms of the product markets they serve.[7] And not only are firms often presumed to be identical; the actual description of them is the most stylized or anonymous possible. They are merely entrepreneurless production functions. This procedure, of course, is not wrong in itself; for the purpose of analysis of market level allocation it is perfectly defensible (see Machlup 1967).

But as many critics have argued, neoclassical price theory provides no rationale for the very existence of the firm, not to speak of its boundaries and internal organization. This is not just a matter of the price system operating so efficiently that there is no need for, say, any vertically integrated (hierarchical) enterprises; it is more fundamentally a matter of neoclassical perfect competition theory being inherently incapable of rationalizing anything called "the firm." All relevant productive knowledge is given, prices provide all other information, factors are totally mobile, there are no costs of ascertaining quality, etc. This implies that the theory cannot explain why buyers of goods should not simply contract with owners of factor services instead of with firms.

Coase and Post-Coasian Theory

As the story usually goes, it was Ronald Coase who in 1937 realized that not only had the firm been neglected in economics, but more importantly that it was in fact possible to use economic theory to provide a rationale for why there should be firms in a market economy.[8] Coase's (1937) answer, in a broad outline, is that efficiency requires the substitution of firms for markets if the *transaction costs* of using markets becomes large relative to the costs of managing. Market transaction costs are the costs of discovering contractual partners, drafting and executing contracts. Beyond a central threshold of market transaction costs, hierarchical direction—what Williamson (1991) calls "intentional governance"—of the movements of goods and services becomes more efficient to all involved parties than exchange of property rights through the price mechanism, and what Williamson (1991) following Hayek calls "spontaneous governance." This provides a rationale for the *existence* of the firm.

Applying the conventional marginalist method, the

boundaries of the firm is determined by the condition that the transaction costs of organizing an additional transaction using the market should equal the transaction costs of organizing that same transaction using the firm. And Coase finally hinted at the possibility of using transaction cost reasoning for explaining the details of internal organization.

Another aspect of the standard account of the development of the contemporary theory of the firm is that the field lay dormant for about 30 years until Armen Alchian, Harold Demsetz, and Oliver Williamson revitalized the Coasian analysis in the beginning of the 1970s (Alchian and Demsetz 1972; Williamson 1975). Indeed, almost all modern theories—most of which have taken their leads from the early seminal contributions of Alchian and Demsetz and Williamson—of the firm are considered post-Coasian in the sense that they view the firm as an efficient contract between a multitude of parties; efficient in the sense that it best facilitates exchange, given existing resource scarcities (including scarcity of information and rationality). In spite of the fact of a common Coasian origin, the contemporary theory of the firm is not monolithic (see, e.g., Holmstrom and Tirole 1989); in their attempts to operationalize, make more precise, and understand the original Coasian insights, modern theories have given rather different answers.

In a recent article, Armen Alchian and Susan Woodward (1988) introduced a distinction between a "moral hazard approach" to economic organization, inspired by the original Alchian and Demsetz-analysis (1972), and an "asset specificity approach," best represented by the theorizing of Oliver Williamson (1975, 1985, 1991). The moral hazard approach is usually referred to as "the nexus-of-contracts approach" (Jensen and Meckling 1976; Fama 1980; Cheung 1983), and I shall use that term here. On an overall level, what makes these two approaches different is their degree of adherence to neoclassical theory; whereas the nexus-of-contracts approach is a sort of generalized (property rights) neoclassical theory, the asset specificity approach—particularly in its Williamsonian manifestation—is characterized by the import of a number of non-neoclassical concepts, particularly Herbert Simon's concept of bounded rationality (Simon 1979). They have given correspondingly different answers to Coasian questions like, "What is the precise nature of transaction costs?" "How are they best to be operationalized?" "What determines the size of hierarchical costs?" etc.

The Nexus-of-Contracts Approach

In Alchian and Demsetz's (1972) original analysis the existence of the firm is explainable in terms of the incentive problems that arise when *team production*—production that involves non-separable production functions—is combined with *asymmetric information* and *moral hazard*. In this prisoners' dilemma setting, shirkers do not bear the full consequences (costs) of their actions, and viable shirking is the result. The way the market system copes with such shirking is through contracts. The "classical capitalist firm" is characterized by the existence of one central agent, who is both a monitor who meters the performances of other agents and a residual claimant and with whom other agents enter into contracts. Market forces then guarantee efficient monitoring of team production via the incentive structure confronting the monitor-residual claimant. Viable firms are those that succeed in minimizing the costs involved in monitoring team production.

A number of analytical addenda to this basic story have been presented. Jensen and Meckling (1976) recognized that the monitoring story as told by Alchian and Demsetz was not limited to team production. And Barzel (1987) demonstrated that the agent that was most likely to end up as monitor-residual claimant (principal) was he whose contribution to the joint product was the most difficult to measure.

Such refinements of the nexus-of-contracts approach came at a cost, however. Though the basic claim was present in Alchian and Demsetz's (1972) original discussion, it became clear that within this tradition the very concept of the firm as a planned order was difficult to uphold. What I ordinarily refer to as "a firm" is simply a complex set of market contracts (Cheung 1983), only distinguished from ordinary spot market contracts by the continuity of association among input owners. Given this, it comes as no big surprise that nexus-of-contracts theorists Eugene Fama (1980) and Steven Cheung (1983) call for an abandonment of the concepts of "the entrepreneur" and "the firm," respectively. Since all allocation of resources—including those "inside" the firm—are ultimately governed by relative price movements there can be little or no room for planned direction of resources as embodied in entrepreneurial plans.[9]

The Asset Specificity Approach

In the same way that the nexus-of-contracts approach seems to have increasingly centered upon one central analytical concept, the cost of metering quality of goods and services, the contractual approach associated with Williamson (1985) has increasingly focused attention on one central character: *asset specificity*. Asset specificity is said to exist when the opportunity cost of an asset is significantly lower than its value in present use. Typically, asset specificity will involve a high degree of *complementarity* among the relevant assets. The difference between these two values is a Marshallian quasi-rent that can be appropriated through *opportunism*. The tussle for rents in bilateral monopoly situations characterized by asset specificity, opportunism, and bounded rationality is the driving force behind firms' changing boundaries. It is, in other words, costly bargaining games that underlie the existence of the firm and its efficient boundaries.

As indicated by Grossman and Hart's (1986) refinement of this mode of analysis, it is not really the contractual "ink costs," and not even the appropriation potential relating to the rents from specific assets that underlies integration *per se*. It is rather the mutual desire to implement efficient investment incentives that determines to whom the ownership rights ("residual rights") —that is, the right to determine and control the use of (physical) assets in circumstances not spelled out in the contract—will be allocated.

One of the really recalcitrant problems in modern debates on economic organization has to do with specifying the costs of internal organization. In the absence of such a specification one cannot solve the puzzle of why the economy is not organized into one big firm (Coase 1937, p. 86). Indeed, Williamson (1985, p. 132) refers to this problem as a "chronic puzzle," and highlights it with his "problem of selective intervention": Why can't a merger of two firms not always do the same or better than two independents, since management in the merger can always intervene selectively?

One of the important attempts to identify the (incentive) costs of internal organization is Milgrom (1988), who basically asks why the hierarchical organization continues to survive in a competitive market economy despite its bureaucratic costs. Applying insights from the rent-seeking literature, Milgrom identifies the sources of bureaucratic costs as subordinate "influence activities," viz. their strategic attempts to change the actions of superiors in their own interest. Such influence

activities produce influence costs that usually have a negative impact on firm profitability. As Milgrom argues, centralized authority is particularly vulnerable to influence activities; the decentralized market provides fewer targets. The reason the hierarchy may survive after all is because the existence of strict bureaucratic rules have the beneficial function of dampening the influence activities of subordinates.

Summing up, I highlight the following specific concepts as those that are crucial to telling a story about why there should be firms in a market economy. *Asymmetric information* is absolutely crucial since in the absence of knowledge dispersion there would be no transaction costs; that is, economic organization would be indeterminate. Some notion of *linkedness of resources*—either in the form of Williamson's notion of asset specificity or Alchian and Demsetz's concept of team production—seems also necessary, since in its absence there would be no rents to appropriate. Finally, a notion of *self-interest seeking with guile* (opportunism, moral hazard) also seems necessary, since in its absence there would be no need for the services of a monitor, hierarchical fiat, bureaucracy, etc.; market contracts coupled with promises—that would always be credible—would be sufficient.

On a more general theoretical level, most modern theories of the firm bear an intellectual debt to property-rights theory (Coase 1960; Demsetz 1967). The structure of contracts that constitutes the firm implies an allocation of property rights. Finally, on a methodological level modern theorists of the firm and economic organization are committed to a method of comparative institutionalism which implies that for purposes of comparison the relevant yardstick is not the unattainable ideal of general competitive equilibrium but real, attainable institutions or market outcomes (Demsetz 1969).

I have asserted that the Austrians in some important areas can be seen as precursors of modern theories of economic organization, including the theory of the firm. In the next section I shall attempt to substantiate that assertion. I shall concentrate attention on the points where the Austrians directly anticipate modern developments and neglect those where there exist variance.

Austrians on Economic Organization

Sifting through the pages of the works of prominent Austrians

confirms that while they generally have had very little to say about the theory of the firm *per se*, economic organization and its institutional embodiment have always occupied center stage. The kind of economic organization issues that have primarily occupied Austrian interests are, of course, issues in comparative systems, as represented most notably by the socialist calculation debate (Mises 1920, 1936, 1949; Hayek 1935a, 1935b, 1940, 1937; Lavoie 1985). Assuredly, it is an anachronistic fallacy to criticize the Austrians for not discussing a subject matter that became established in economics only with the beginning of the 1970s. But on the other hand the Austrians had so many of the necessary ingredients of a theory of the firm that it is surprising that it was left to non-Austrian (but subjectivist) Ronald Coase to raise the questions of the existence, boundaries, and internal organization of the firm. To locate some of these ingredients in the Austrian literature is the primary purpose of this section.

Kinds of Orders and Their Governing Rules

Perhaps the most pertinent overall distinctions to be made in a discussion of economic organization are the ones between "pragmatic" and "organic" institutions (Menger 1883) and "planned" and "spontaneous orders" (Hayek 1973). While pragmatic institutions are the results of "socially teleological causes," organic institutions are "the unintended result of innumerable efforts of economic subjects pursuing individual interests" (Menger 1883, p. 158). Menger's discussion is primarily oriented towards giving an explanation of the different ways in which institutions may arise, not to the same extent towards explaining how they are preserved—and their principles of operation—once established. Hayek's (1973) distinction between planned and spontaneous orders supplements Menger's discussion in this regard, since his distinction is based on the different organizing rules they comprise; the rules supporting the spontaneous order being abstract, purpose-independent, and general, while the rules (or commands) that support a planned order are designed and specific in nature.[10]

Although Hayek tends to strictly dichotomize not only spontaneous and planned orders but also the relevant rules that direct them—in "nomos" and "thesis," respectively—precise distinctions are in fact difficult to draw, since, for example, spontaneous orders may be of a very different generality, planned orders may comprise elements of spontaneous orders,

etc. I shall touch on these issues later on, and for now be content with noting that the distinction between planned and spontaneous orders closely parallels that between "markets and hierarchies" (Williamson 1975), or as Williamson (1991) now says, between "spontaneous" and "intentional governance." Here are some of the meanings I may ascribe to the contrast between these two modes of organizing economic activities:

(1) Full-scale comprehensive planning versus price-mediated exchange on the basis of private property rights.
(2) Market socialism versus price-mediated exchange on the basis of private property rights.
(3) Firm hierarchies versus price-mediated exchange.
(4) Quasi-hierarchies (e.g., joint ventures) or decentralized organizations (e.g., franchising) versus price-mediated exchange.
(5) Firm hierarchies versus government hierarchies.

The distinctions outlined in (1) and (2) were the themes discussed in the socialist calculation debate; (3) is the distinction examined by Coase (1937); (4) has been examined by the followers of Coase, particularly Williamson (1985); and (5) has been examined by property-rights theorists. It is only speculation about the distinctions in (1) and (2) that the Austrians have systematically and comprehensively contributed (Mises 1945 is probably the most comprehensive Austrian contribution to number 5 above). But as I shall briefly argue, the Austrian contributions to the calculation debate provided a number of insights which are extremely pertinent for theorizing about the distinctions presented in (3) through (5).

This is not a novel observation in itself. O'Driscoll and Rizzo (1985, p. 124) report that they find Coase's (1937) insights in economic organization "congenial" because they incorporate "the essential conclusions of the economic calculation debate."[11] And many theorists of economic organization have noted the affinities of Austrian insights in the calculation debate to modern theory (e.g., Williamson 1985, p. 8; Milgrom and Roberts 1992, p. 51). I shall, however, be somewhat more explicit and detailed about where the points of similarity are.

The Socialist Calculation Debate

The Austrian insights presented in the course of the calculation

debate that are directly relevant to the theory of economic organization, in the sense that they anticipate modern developments, can be summarized in the following closely connected points:

(1) the insight that welfare assessments of institutions and outcomes should not be based on a "Nirvana approach" (Demsetz 1969);
(2) the importance of change to economic organization;
(3) the understanding that an economic organization should be sensitive to the knowledge and rationality that agents possess; and
(4) an understanding of the principal-agent relationship and the importance of incentives more generally.

To start with the general methodological point, it is apparent already from Mises's (1920) opening salvo in the debate—over later Austrian contributions and until Hayek's "Use of Knowledge" article—that what really irritated the Austrians was their socialist opponents' use of unrealistic and unattainable social ideals—Nirvanas—as standards of comparison. Naturally, on such standards, capitalism would appear inefficient and wasteful. Being the first to insist that socialist economic organization too should be approached with the tools of economic analysis (and that idealized, institutionless models should be banned as standards of comparison), the Austrians may be said to be the first modern economists consistently pursuing the Smithian program of comparative institutionalism: that is, using economic analysis to compare the efficiency of alternative real-world institutions for the organization of economic activities.

Now, why exactly was it—in the opinion of the Austrians—that models like Oskar Lange's (1938) model of market socialism did not conform to such a program of comparative institutionalism? The answer is contained in the remaining three points above: (1) The socialist economists neglected the role of incentives (Mises 1936; Hayek 1940); (2) made unrealistic assumptions about the amounts of knowledge that agents can possess (particularly the planning authorities); and (3) formulated their reasoning within static models that obscured all significant economic problems. Or, in a more compact formulation, basing their theories on the economics of the stationary state, market socialists such as Oskar Lange could suppress the knowledge and incentive problems of real

economies.

Mises, on the other hand, insisted that "the problem of economic calculation is of economic dynamics; it is no problem of economic statics" (1936, p. 121). And Hayek later seconded Mises when he made the observation that "economic problems arise always and only in consequence of change" (1945, p. 82). As Mises (1936, 1949) recognized, in a changeless stationary state, the political authorities could implement the existing allocation as its plan and everything would continue the way it was before. The lesson to be drawn from this Misesian insight is the general one that it is only when economic change is introduced that economic organization is determinate.[12] And the specific Austrian conclusion in the calculation debate was that in the presence of economic change economic organization on the basis of private property and a price system is strictly superior on efficiency grounds. But the Austrian insight of how change and economic organization are related is of a wider applicability and can be given various interpretations.

One of these interpretations is the general Austrian one, that the entrepreneurial market process is needed to cope with the knowledge problems that economic change introduces (Kirzner 1973), and that market process performs most efficiently when fueled by well-defined and protected private-property rights that provide appropriate incentives for entrepreneurial alertness (Kirzner 1973; Mises 1949).

But a more specific and perhaps more pertinent interpretation is to interpret the Austrian insight as anticipating the point that without change there would be no transaction and information costs; that is, in the absence of the knowledge problems introduced by a changing economic reality there would be no costs of discovering contractual partners, drafting and executing contracts, monitoring production, constructing contractual safeguards, judging quality, etc. And in the absence of transaction costs, the choice between price-mediated market transactions and firm hierarchies would be indeterminate. As the Austrians recognized, in real world economies, institutions like markets and hierarchies perform the function of economizing on bounded rationality and dispersed information,[13] precisely the factors that ultimately underlie transaction and information costs.

In a doctrinal perspective, this indicates a link between the Austrian insights in the calculation debate and the Coasian insights in economic organization, though not one that was

recognized either by the Austrians or Coase, probably because they had concentrated on different institutions. Where Hayek (1945) praised "the marvel" of the price system, Coase had eight years earlier established that the reason firms existed was that the "telecommunications system" of prices did not perform costlessly. Indeed, some commentators have seen the analysis of Coase and that of Hayek as strongly opposed. Of course, they are not; it is only in the kind of dynamic economic reality visualized by the Austrians that Coase's argument acquires its full force.

On a more specific level, there are several other ways in which Austrian insights presented in the course of the calculation debate anticipate or complement modern insights in economic organization. One of the rapidly expanding areas in the theory of economic organization is principal-agent theory. And in the course of the calculation debate, the Austrians anticipated several insights from this theory. They pointed out that it did *not* follow that under socialism, individual managers (agents) would act in the interest of the principals, viz. the planning authorities (e.g., Hayek 1940). And the Austrians pointed out the existence of a problem of risk allocation between principals and agents: under socialism, managers would be either inefficiently risk averse or risk loving, in the face of career concerns and the presence of an institution (the planning authorities) that could act as an insurance institution and take over the moral hazard of individual managers (Mises 1936, p. 122; Hayek 1940, p. 199).

Furthermore, socialist economic organization would supply a number of opportunities for active rent seekers (Mises 1936, 1945, 1949), that is, in modern terminology (Milgrom 1988), it would provide a number of targets for influence activities and be associated with high levels of influence costs. The market socialists, in contrast, had no grasp of the principal-agent problem, or, if they had, assumed it away; as has often been pointed out, Lange (1938) implicitly assumed continual incentive compatibility between the individual managers and the planning authorities. One of the primary virtues of the market system organized on the basis of private ownership, as Mises saw it, was that it strongly mitigated potential principal-agent problems. In the capitalist economy, the

> operation of the market [does] not stop at the doors of a big business concern . . . [It] permeate[s] all its departments and branches . . . It joins together utmost centralization of the whole concern with

> almost complete autonomy of the parts, it brings into agreement full responsibility of the central management with a high degree of interest and incentive of the subordinate managers. (Mises 1945, p. 47)

Breaking the corporation up into separate profit centers is the way that top management monitors subordinate managers. And anticipating Fama (1980), Mises (1945, pp. 42–7) points to the existence of career concerns as important forces mitigating managers' shirking.

Now, principal-agent theory as well as the specific Austrian incentive arguments in the calculation debate rest on more general property rights-based reasoning. For example, it is fundamentally because agents usually do not have property rights to residual income streams from the productive activities they engage in that they may shirk their duties. Let us briefly examine some Austrian pronouncements on the subject of property rights.

Property Rights

To Menger property rights are directly derived from the facts of scarcity and human rationality; as he notes

> human self-interest finds an incentive to make itself felt, and where the available quantity does not suffice for all, every individual will attempt to secure his own requirements as completely as possible to the exclusion of others . . . Thus human economy and property have a joint economic origin since both have, as the ultimate reason for their existence, the fact that goods exist whose available quantities are smaller than the requirements of men. Property, therefore, like human economy, is not an arbitrary invention but rather the only practically possible solution of the problem that, in the nature of things, imposed upon us by the disparity between requirements for, and available quantities of, all economic goods. (Menger 1871, p. 97)

Ownership to scarce goods—*economic* goods—should be protected by the legal order (Menger 1871, pp. 97, 100);

property rights to economic goods will arise under all conceivable circumstances (p. 100), and as regards economic goods it is logically fallacious to think that property rights *per se* can be disposed of under any kind of social organization. With goods that are not scarce, the situation is of course different; here "men are communists" (p. 100). But whether a good is economic or non-economic is fundamentally a subjective category and may change over time; that is, property rights to goods will be defined when goods that were once non-economic become economic.

Menger is one of the very few economists to discuss property rights before Coase, Alchian, and Demsetz in the 1960s laid the foundation for the property-rights approach.[14] And in some respects he anticipates modern developments, particularly in the dynamic perspective in which he places the development of property rights (see Demsetz 1967). But what Menger's discussion does not incorporate is the crucial partitioning of property rights in rights to use goods, appropriate their benefits, and exchange them. Furthermore, he did not investigate how different constellations of property rights influence allocation. It is a general conclusion from the modern property-rights approach that for efficient resource allocation to be fully defined, exclusive, individual, and fully tradeable rights are necessary. Mises came much closer to such insights. In *Human Action* there is a very clear statement of "tragedy of the commons" type problems (1949, p. 652), and the insight that more precise definitions of property rights—"rescinding the institutional barriers preventing the full operation of private ownership"—will eliminate such problems.

But Mises also understood that property rights are composite rights. As he noted, rights to appropriate the rents and profits from assets ("fructus") are crucial to the efficient working of the economy:

> In an economic system based upon private ownership of the means of production, the speculator is interested in the result of his speculation in the highest possible degree. If it succeeds, then, in the first instance, it is *his* gain. If it fails, then, *he* is the first to feel the loss. The speculator works for the community, but he himself feels the success or failure proportionately more than the community. (Mises 1936, p. 182)

And one of the reasons why the "artificial market" of market socialists will not work is precisely because the transfer of goods between socialist managers is not equivalent to the transfer of goods in a capitalist economy: Under socialism it is not full property rights that are transferred; prices and incentives are accordingly perverse. On property-rights grounds, it is inherently wrong to believe that "the controllers of the different industrial units" in a socialist economy can be instructed "to act *as if* they were entrepreneurs in a capitalistic state" (1936, p. 120; see also Mises 1949, pp. 702–5).

Where Mises perhaps most explicitly anticipates modern developments—specifically the modern work on how financial markets monitor management—is when he points out that for the efficient functioning of the economy, capital markets are absolutely crucial. They alone secured that the calculation problems in a dynamic economy could be solved through "dissolving, extending, transforming, and limiting existing undertakings, and establishing new undertaking" (1936, p. 215). Only unhampered capital markets and markets for corporate control could perform the two crucial tasks of monitoring management—a principal-agent problem—and pricing assets correctly. Or as Mises summarizes it:

> Under Capitalism, the capitalist decides to whom he will entrust *his own* capital. The beliefs of the managers of joint stock companies regarding the future prospects of their undertakings and the hopes of project-makers regarding the profitability of their plans are not in any way decisive. The mechanism of the money market and the capital market decides. This indeed is its task: to serve the economic system as a whole, to judge the profitability of alternative openings and not blindly to follow what the managers of particular concerns, limited by the narrow horizon of their own undertakings, are tempted to propose. (1936, p. 122)

Contrast this with Lange's (1938, p. 110) assertion about "private corporation executives, who practically are responsible to nobody." Modern theory would be more on Mises's side than on Lange's.

Capital Theory and Business Cycle Theory

While the connection between the Austrian insights in socialist economic organization and the role of property rights on the one hand and the theories of economic organization seems rather evident, capital theory and business cycle theory seem to be subjects much less connected to the theory of economic organization. The reason these theories are mentioned here is because they supply the last component in the set of concepts that are needed to make a coherent statement about economic organization in general and the firm in particular. The relevant component has to do with the intertemporal structure of production highlighted in Austrian capital and business cycle theory (e.g., Hayek 1931, 1941; Lachmann 1956).

To say that the production process of the economy is a matter of a series of stages of production that bears a temporal relationship to final consumption (Menger 1871; Hayek 1931, 1941; Lachmann 1956) is equivalent to saying that the relevant productive activities are in a relation of *complementarity* to each other. And to say that expansion of credit may introduce maladjustments in the structure of production that has to be worked out over time (Hayek 1931) is equivalent to indicating that some activities may be *specific* to each other (see also Lachmann 1956). These relations can only be adequately understood in a temporal perspective such as the one in Austrian capital theory and business cycle theory (ibid.); they are obscured in the usual production-function view of the productive process. And a phenomenon like vertical integration is much easier to portray and comprehend within a sequential framework like the Austrian than it is within a temporal framework such as the production-function view. As recent work in the theory of the firm has demonstrated, the notions of complementarity between resources—for example, in the form of Alchian and Demsetz's (1972) team production and asset specificity—are necessary to telling a coherent story about firms.

Summing Up

In the preceding sections I have argued that the Austrians anticipated a number of insights that have become central in recent attempts to understand economic organization in general and the firm in particular. The roles of knowledge, incentives, and property rights were strongly in focus in the Austrian theory, particularly in the context of the socialist calculation debate. This provides the opportunity to speculate why the Austrians did

not piece all these components together into something like the contemporary theory of economic organization in general and the theory of the firm in particular, and why that task was allotted to Ronald Coase. The candidates for explanation are many and very different.

One of them has to do with the allocation of research effort: The Austrians were continuously a rather tiny group of economists (unless a very far-reaching definition of "Austrian" is adopted), and the themes of the time, particularly in the 1930s, were very pressing; the subtle details of the economic organization of capitalist economies may have seemed to be of minor interest compared to debates with the market socialists on large-scale social reorganization, with Keynes on monetary policy, and with meeting the full-scale attack on Austrian capital theory that Frank Knight launched at almost the same time. But these debates meant the virtual elimination of the Austrians as a school.

And herein is a reason why the theory of economic organization in general and the theory of the firm in particular had to await the beginning of the 1970s before it could start blossoming: The virtual elimination of the Austrian school and the increasing focus on institutionless, idealized, formal models following World War II meant that preoccupation with the subject of institutions became regarded as the domain of Veblen-type "old" institutionalists, whom very few formal economists took seriously. However, developments in the 1960s in formal theory—e.g., the economics of information and uncertainty—together with developments in property-rights theory implied that the theory of economic organization could be increasingly addressed with economic tools. But this rather slow process could have been speeded up, had the earlier Austrian insights in economic organization not been so consistently neglected or misrepresented (on this last issue, see Lavoie 1985). Perhaps I may talk about a Kuhnian "loss of content" here.

It would be tempting in this context to say that Austrian theory simply was poorly articulated and "appreciative," not "formal" (these are Nelson and Winter's 1982 concepts). In this interpretation, serious attention to the details of economic organization simply had to await developments in basic microeconomic tools. Now, this may be true on the levels of analytical precision and operationalization. But obtaining his seminal insight, Coase (1937) simply applied the economic tools of his day, that is, substitution at the margin, and added the

concept of transaction costs. There is no inherent reason why Austrian theory would not have been able to present a similar insight, particularly not that it was too poorly articulated.

I have to rest content, it seems, with noting that the sort of intellectual creativity that produces new theoretical insights is a function of many factors, particularly a set of components that can be pieced together, a specific context that indicates the existence of some important and unexplained phenomenon, and finally a creative spark. As argued, the components were there; but what may have been missing was probably the insight that these components could fruitfully be pieced together into something like a theory of the firm, as well as some intellectual context that could initiate such creativity.[15]

Here it is tempting to propose that it was precisely the Austrian engagement in the calculation debate that blocked the application of general Austrian insights to the theory of the firm. Consider the following reasoning, akin to the one applied by Hayek (1945):

(1) economically important knowledge is local and often tacit;
(2) efficiency dictates that such knowledge be utilized by those who are closest to it;
(3) the market allows this and is, therefore, efficient;
(4) to stay in the market one has to perform efficiently;
(5) but I know that some firms can be observed to stay in the market;
(6) the firm uses centralized decision-making (cf. Minkler 1991, p. 9).

And that violates statement (2). Stated somewhat differently, what the Austrians did not supply was economic principles that could *discriminate* between firm and market on efficiency grounds. To do this was left to Ronald Coase and his later followers.

An Austrian Critique of the Modern Theory of the Firm

In the discussion of the foregoing sections I have deliberately suppressed those points where Austrian theory is in conflict with the modern theory of economic organization in general and the theory of the firm in particular, and highlighted the points where the Austrians could be seen as precursors. But scattered in the

Austrian literature there is a critique of contemporary economic orthodoxy that has implications for the theory of the firm, too, and perhaps particularly for the nexus-of-contracts part of modern theory. The critique of orthodoxy I have in mind is the strongly related standard Austrian critique that neoclassical economics is too prone to:

(1) neglect the distinction between spontaneous and planned order (Hayek 1973; O'Driscoll and Rizzo 1985);
(2) neglect the market process (Mises 1949; Hayek 1945; Kirzner 1973; O'Driscoll and Rizzo 1985; Lachmann 1986);
(3) neglect the activities of the entrepreneur (Lachmann 1986); and
(4) objectify costs (Vaughn 1982).

Let us see if this standard critique can be applied to the theory of the firm (see also Boudreaux and Holcombe 1989; Foss 1993a).

Spontaneous and Planned Orders

With regard to the distinction between planned and spontaneous orders there are two fundamental overall errors one can commit at the level of economic organization; the first one is to argue that what looks like a spontaneous market order is in fact the result of the plans of, typically, big enterprise, or more broadly to overlook spontaneous order altogether.[16] Historically, such arguments have been important to many proponents of socialism. The second error is to argue that spontaneous market forces are so pervasive that what looks like planned orders are in reality spontaneous orders. If the first kind of error—the "undervaluation of spontaneous governance" (Williamson 1991, p. 160)—were common in the days of the socialist calculation controversy, it is the second type of error that is committed in modern contributions to the nexus-of-contracts perspective. As "nexus" theorists, Michael Jensen and William Meckling assert,

> it makes little or no difference to try to distinguish those things which are "inside" the firm (or any other organization) from those things that are "outside" of it.
>
> *The firm is not an individual*. It is a legal fiction which serves as a focus for a complex process in which the conflicting objectives of individuals . . . are brought into equilibrium within a framework of

> contractual relations . . . the behavior of the firm is like the behavior of the market; i.e., the outcome of a complex equilibrium process. (Jensen and Meckling 1976, p. 327)

Assuredly, the firm may itself, in a sense, be said to incorporate aspects of an exchange process, besides being embedded in an overall societal exchange process; after all, a firm's internal organization is characterized by various incentive schemes, such as internal job ladders. But this does not make the firm a spontaneous order, as Jensen and Meckling seem to imply; the relevant exchange process is still subordinate to some overall purpose, which is sufficient to make it qualify as a planned order. Furthermore, conceptualizing the firm the way Jensen and Meckling do basically disposes of the very problem that Coase set out to answer in 1937: Why do firms as planned, hierarchical entities arise at all in a market economy? Since movements of relative prices in the nexus-of-contracts view of economic organization basically underlie all allocation—including that "inside" the firm—there can be no room for entrepreneurship and planned direction of resources (see, for example, Boudreaux and Holcombe 1989). This is the fundamental reason "nexus" theorists Eugene Fama (1980) and Steven Cheung (1983) want to eliminate the concepts of the entrepreneur and the firm, respectively.

The Neglect of Process

The neglect of process is most acutely present in the most neoclassical of modern approaches to economic organization, the nexus-of-contracts approach. Although this approach is probably the one among modern approaches that most emphatically emphasizes the firm's (or, rather, "firm-like organization's") embeddedness in a web of market transactions, no attention is given to the market *process*. All (contractual) outcomes are efficient equilibrium outcomes. Much of this has to do with the way the nexus-of-contracts approach connects to property-rights theory, and particularly the reasoning contained in the Coase theorem (Coase 1960).[17] A common but often implicit interpretation of the Coase theorem is that if only property rights are well defined, reaching an optimal state is *unproblematic*, automatic. Of course, this is not so; neglecting problems of the empty core and trading under bilateral monopoly, it is obvious

that agents need to *discover* opportunities for profitable trade before they can act on them (Kirzner 1973, p. 227). This process of discovery is neglected in many versions of the Coase theorem and in the nexus-of-contracts approach as well.

Process arguments figure somewhat more prominently in the theorizing of Williamson, particularly in the context of evolution of contract execution. Whereas contracting in the nexus of contracts is efficient on an *ex ante* basis, "the economics of time and ignorance" (O'Driscoll and Rizzo 1985) is present in Williamson's theory to the extent that he attempts to give a real-time account of contract execution (Williamson 1985). One consequence of this is that various *ex post* contracting institutions that exist to mitigate problems of *ex post* opportunism are given considerable attention (see further, Foss 1993a, 1993c). And in seeking the rationale for the existence of the firm, Williamson introduces the concept of "The Fundamental Transformation," viz. the semi-process argument that in the course of contract execution, what was initially a "large numbers" situation with many contractors may turn into a "small numbers" situation (e.g., a bilateral monopoly). But this does not mean that Williamson systematically places the firm or other kinds of economic organization in a market process context. Markets that are "large numbers" are implicitly taken to be in continuous equilibrium.

The Neglect of the Entrepreneur

Neglect of the market process usually goes hand in hand with neglect of the entrepreneur. It is not surprising, then, that the approach that pays least attention to the market process, the nexus-of-contracts approach, is also the one that pays least attention to the activities of the entrepreneur; indeed, it explicitly attempts to dispose of the very concept (Fama 1980). The reason for this, as argued, is the inability within the nexus-of-contracts tradition to uphold the distinction between planned and spontaneous order. Furthermore, the services of the entrepreneur is equivalent to the services of all other factor owners, and can be bought on markets as well.[18] Or, in other words, what may look like entrepreneurial services are in fact managerial services. And in the world portrayed in the nexus-of-con-tracts approach there is in fact no need for the services of the entrepreneur, since all contracting is efficient on an *ex ante* basis, implying that all gains from trade have been discovered and that

no reallocations of property rights during contract execution have to take place.

Despite the fact that the account of agency in Williamson's theory is more dynamic than the one in the nexus-of-contracts literature,[19] no attention is given to entrepreneurship. An aspect of this is that questions of innovation and the creation of markets are (deliberately) suppressed (Williamson 1985, p. 142). As Williamson (1985, p. 87) points out, it is a heuristic starting point for his theory that "in the beginning there were markets." And since markets are given, so also are inputs, outputs, and technology.[20] As it is the case with the nexus-of-contracts approach, the agents that occupy Williamson's attention are *managers* of *existing* transactions, shifting transactions over the boundaries of the firm. In Kirzner's (1973) terms, they are "Robbinsian maximizers"; not alert entrepreneurs.

Regarding the neglect of process and entrepreneurship in modern theories of the firm, I may observe that in a sense process arguments and entrepreneurship are necessary for modern theories. Austrian economics and modern theories of the firm can be seen as complementary for the same reason that Hayek's "The Use of Knowledge in Society" and Coase's "The Nature of the Firm" can be seen as complementary: It is precisely in the kind of dynamic economic reality envisaged by the Austrians that questions of economic organization become really pertinent. To update insights from the calculation debate, there would be no transaction or information costs in a stationary state; hence, economic organization would be indeterminate. So I need change to make sense of transaction costs and economic organization. In such an interpretation, modern theories of the firm implicitly appeal to a changing and dynamic reality (Foss 1993a, 1993c). In such a "changing and dynamic reality" transaction costs arise because of the need, among other things, "to discover what the relevant prices are" (Coase 1937, p. 83). But who will perform this act of discovery if not entrepreneurs?

On a more general level, it can be argued that the neglect of process and entrepreneurship has meant that the kind of knowledge and coordination problems emphasized in Austrian literature (Hayek 1937; Kirzner 1973) are not present in the contemporary theory of the firm. The firm does not exist because it solves coordination of knowledge-type problems; the reason for its existence lies in incentive considerations. In the nexus-of-contracts approach, the existence of the firm has only to do with mitigating free-rider-type problems; in Williamson's approach,

the firm exists to dampen incentives to opportunism (see further, Foss 1993b). As I shall argue in the next section, "Towards an Austrian Theory of the Firm," the type of coordination problems that interest Austrians should be incorporated in a more complete theory of the firm.

Costs

In equilibrium, costs can be said to be "objective" in the sense that they are accurately measured by prices; factors of production, for example, are paid their (marginal) opportunity costs. But outside equilibrium, prices do not fully reflect opportunity costs, simply because the marginal conditions are not satisfied. The inherent subjectivity of costs is only really obvious here. And the equilibrium theorist is therefore too prone to "objectify" costs, to assume, in other words, that real prices accurately measure opportunity costs (Buchanan 1969).

The tendency to neglect the inherent subjectivity of costs is manifest in modern theories of economic organization. This is not just a matter of a lack of a consistent subjectivist (opportunity cost) definition of the concept of transaction costs. It is also a matter of *production costs* not being allowed to influence the make-or-buy decision. As Harold Demsetz (1988, p. 147) has argued:

> The emphasis that has been given to transaction costs . . . dims our view of the full picture by implicitly assuming that all firms can produce goods or services equally well.

This reflects the common simplifying assumption that productive knowledge is given in explicit form to everybody. But given the facts of the dispersion of knowledge (Hayek 1945), the tacit nature of much of the economically relevant knowledge (Hayek 1935b, pp. 154–55; Nelson and Winter 1982), the distribution of entrepreneurial capabilities (Knight 1921), the Smithian benefits of specialization, and the positive costs of information, obviously this cannot be so. So even in equilibrium, production costs will differ. And outside equilibrium, production costs may differ even more since factor prices do not measure the entrepreneur's or manager's subjective appraisal of the costs of production. Furthermore, as Hayek (1940, p. 196) points out, low-costs methods of production have to be *discovered* "and discovered

anew, sometimes almost from day to day, by the entrepreneur."

What this implies to the theory of economic organization is that (subjective) production costs may in fact enter the make-or-buy decision; entrepreneurs may decide to bring some transaction under the corporate umbrella simply because its implied cost of production in the firm is lower than the price that would have to be paid for it in the market (Foss 1993b).

Summing Up

It seems that the relationship between modern theories of economic organization and Austrian economics is more encompassing than the issues of the Austrians as precursors and critics. In the corpus of Austrian economics, there are a vast number of insights that, as argued in this section, are not present in the contemporary theory of the firm. But there is also a constructive aspect to this, since it is possible to utilize specific Austrian insights not only to supplement existing theories of the firm, but also to construct a distinct Austrian theory of the firm. To argue this is the purpose of the following section.

Towards an Austrian Theory of the Firm

"Clearly, much more work needs to be done on a subjectivist or Austrian theory of firm behavior" (O'Driscoll and Rizzo 1985, p. 125).

A Toolbox

Our Austrian/contemporary theory of the firm toolbox now includes:

(1) a distinction between planned and spontaneous orders;
(2) the market process as a process of entrepreneurial discovery;
(3) property rights (incentives);
(4) specificity and complementarity of assets;
(5) the subjectivity of costs (including production costs);
(6) the private and tacit nature of knowledge ("impactedness"); and
(7) transaction and information costs.

Let us first examine in which respects some of these Austrian insights may *complement* the contemporary theory of the firm,

and then briefly indicate how a distinct Austrian theory may be constructed.

Austrian Economics as Complementing The Contemporary Theory of the Firm

Where Austrian insights have the most to offer to the contemporary theory of the firm is on the level of process and knowledge. To start with the knowledge issue, the Austrian insight that most economically relevant knowledge is local and tacit is not systematically incorporated into contemporary Coasian theories of the firm, at least with regard to production knowledge (Demsetz 1988). In the non-Coasian work of Penrose (1959) and more recently Nelson and Winter (1982) on the theory of the firm, the firm is seen as possessing a set of "capabilities"—stocks of knowledge that are idiosyncratic to the relevant firm—a view of the firm that harmonizes with Hayekian insights about knowledge (Hayek 1945).

As O'Driscoll and Rizzo (1985, p. 124) put it, with reference to Nelson and Winter (1982), this view of the firm furthermore applies "a Hayekian theory of rules and evolved market institutions to firm behavior," in the sense that firms are placed in an evolutionary setting, incorporating both selection through the market and conscious adaptation (though not maximization), and portraying the firm as equipped with a set of "genotypes"—"routines"—on which these effects ultimately operate. Like Hayek's (1973) rules, Nelson and Winter's (1982) routines are stable and mostly tacit patterns of social behavior that are followed—largely unconsciously—because they produced success in the past, i.e., coordinated individual actions relatively successfully. It is from the firm's stock of routines or capabilities that its strategies and actions emerge.

However, not all routines or capabilities are equally efficient. And this provides a room for a view of the market as a continuous disequilibrium process, in which, for example, certain routines are selected against, in the sense that their share of the overall pool of routines is falling, closely akin to the way that Hayek characterizes cultural evolution. Such a view is consistent with Kirzner's (1979, p. 134) point that

> under conditions of disequilibrium, when scope exists for entrepreneurial activity, there is no reason genuine disparities may not exist among different

producers.

Summing up, the "evolutionary" or "capabilities" view of the firm is broadly consistent with Austrian theory since it incorporates decentralized tacit knowledge, learning, and a commensurate role for the entrepreneur.

However, as previously noted, it may be somewhat contradictory to apply insights from the theory of spontaneous order—evolved rules, coordination, etc.—to a planned order, that is, the firm. The market or price system—the paradigmatic spontaneous order—was described by Hayek as

> a sort of discovery procedure which both makes the utilization of more facts possible than any other system, and which provides the incentive for constant discovery of new facts which improve adaptation to the ever-changing circumstances of the world in which we live. (1968, p. 236)

But may we not say that the firm, too, is a learning system in some sense? I think we can, and, in fact, should. But what saves us from committing the failure of identifying what is ultimately a planned order—the firm—as a spontaneous order, is the notion that the firm, like the entrepreneur, learns about *local* facts. The firm is a local learning system, not a global one, such as the spontaneous order of the market.

To put forward such a view of the firm is implicitly to criticize the contemporary (Coasian) theory of the firm. For, as noted, this theory is largely a static affair that pays little or no attention to the creation of markets, and assumes that inputs, outputs and technology are given, so that the economic problem has only to do with combining these in a transaction cost minimizing manner. But it is also to suggest that the Coasian and Austrian/evolutionary/capabilities view of the firm may be fruitfully combined (see also Langlois 1991). Conceptualizing the firm as a learning, evolved entity implies that the transaction costs associated with, for example, the firm's governance of internal transactions may change over time, e.g., may fall.[21] And conceptualizing the market as a learning system, too, implies that transaction costs associated with market exchange will also change. Based on an Austrian process-oriented view, it becomes conceptually possible, then, to theorize how the organization of transactions change over time, that is, how the boundaries of the firm change.

Summing up, I may conclude that Austrian insights complement the contemporary (Coasian) theory of the firm to the extent that one wants to go beyond merely addressing the efficient organization of existing inputs and outputs, and incorporate dynamic factors, such as learning. But it is also possible to construct a theory of the firm that is distinctively Austrian. To loosely indicate the character of such a theory is the purpose of the following section.

Elements of an Austrian Theory of the Firm

The Austrian concept that is most conspicuously neglected in the contemporary theory of the firm is probably that of the entrepreneur. Or rather, to the extent that "the entrepreneur" is mentioned, he is identified with the manager (see already Coase 1937). This simply continues a tendency in price theory to "understand the notion of the entrepreneur as nothing more than the locus of profit-maximizing decision-making within the firm" (Kirzner 1973, p. 27). However, the role of the manager is distinct from that of the entrepreneur, since the entrepreneur—to be an entrepreneur—is always occupied with the setup of new means structures. Neither is he *necessarily* to be identified with the owner/manager of the firm; what this last person maximizes *may* not be entrepreneurial profit, but rather Ricardian and Paretian rents from already acquired resources. This leads us back to the founding of firms as the relevant domain for exercising entrepreneurship. As Kirzner (1973, p. 52) explains, the concept of the entrepreneur is primary to that of the firm to the extent that

> The firm . . . is that which results *after* the entrepreneur has completed some entrepreneurial decision-making, specifically the purchase of certain resources.

But when we link this initial entrepreneurial purchase decision to the later existence of the firm, we may in a sense say that the entrepreneur continues his activities to the extent that he deploys the firm's resources in exceptionally profitable ventures.

What should interest us in this perspective is why the firm is needed at all? Why is the firm and entrepreneurial direction of resources necessary? Why is it necessary to make a distinction between "plan complementarity, the complementarity of

[resources] within the framework of one plan, and structural complementarity, the overall complementarity of [resources] within the economic system," where the first type of complementarity "is brought about *directly* by entrepreneurial action," while the second kind is brought about by the operation of the market (Lachmann 1956, p. 54)? One could, of course, provide Coasian answers to such Coasian questions.[22] But a more congenial, and in some respects also more interesting, way is to look for an explanation in the peculiar character of entrepreneurship.

We have it from Coase (1937) and Fama (1980) that entrepreneurship not only cannot provide a rationale for the firm, but more importantly is largely an irrelevant concept since the entrepreneur's services can be purchased in the market. What some theorists insist on calling an "entrepreneur" is simply an owner of some specialized human capital, whose services have a market price and an opportunity cost. To such assertions, we may invoke such questions as, who *decides* to hire entrepreneurs? Who *discovers* that some agents possess some superior stocks of human capital, etc.? What such questions indicate is that we simply cannot escape using the concepts of entrepreneur and alertness to hitherto undiscovered opportunities if we want to discuss market dynamics of almost any kind. And that is basically Kirzner's point (1973, 1979); to "move" the market, we have to transcend Robbinsian maximizing and add the category of entrepreneurial alertness. Furthermore, as Kirzner argues, entrepreneurship is—*contra* Coase and Fama—categorically different from all other factor services since it has no opportunity cost. Pure entrepreneurship is primarily an act of perception. What has all this to do with the firm?

What is noteworthy about Kirzner's argument is perhaps first of all that he argues that entrepreneurship is fundamentally non-contractible. One interpretation might be that entrepreneurial alertness—or "judgment," as Frank Knight called the same behavioral quality—is so very much inside a given individual's head—that is, tacit—that it is too "impacted" to be traded. In exploiting pockets of ignorance in the market, the entrepreneur applies this knowledge when he discovers what the market did not realize was available or even needed at all. Kirzner's pure arbitrating entrepreneur can in principle do this. But sometimes the realization of the entrepreneur's idiosyncratic judgment will require the formation of a firm.

Fundamentally, there are three different economic ways in

which one can utilize knowledge that is specific to oneself:

(1) sell one's services through a contract;
(2) utilize it for arbitrage purposes; or
(3) start a firm.

The options that Kirzner considers are primarily (1) and (2). But option (3) is also relevant. And that brings us somewhat away from Kirzner's theory of the entrepreneur, and closer to the Turgot-Böhm-Bawerk-Rothbard view of the *capitalist-entrepreneur* who also owns capital.[23] One way to interpret option (3) is that non-contractability of entrepreneurial judgment may lead to the formation of a new firm,[24] incorporating a new resource use. The economic reason? There is simply no relevant market through which the entrepreneur's idiosyncratic vision can be communicated; knowledge transmission costs are exorbitant (see Silver 1984). The "telecommunications system of prices" fails as a means of coordination; conscious entrepreneurial direction "supersedes" (Coase 1937) the market.

Notice that this explanation of the existence of the firm has nothing to do with incentives; it is a story about market coordination that fails due to lack of necessary intersubjective points of orientation, that is, lack of so-called "Schelling points."[25] The thing to note about this explanation is that it should appeal to those bent on Austrian subjectivism; it takes to almost an extreme (some would say, seriously) the Austrian notions that "different men know different things" (Hayek) and "different men have different thoughts" (Lachmann).

This explanation can be extended from the issue of the existence of the firm to the boundaries issue. As Lachmann (1956, p. 131) notes:

> We are living in a world of unexpected change; hence, [resource] combinations . . . will be ever changing, will be dissolved and reformed. In this activity we find the real function of the entrepreneur.

Now, in his attempt to carry out his plan the entrepreneur will not bring all the economic activities that are complementary to the execution of his under his own ownership. Many goods and services can be acquired through the market without problems. But "in a world of unexpected change" there will sometimes arise a need for new resource combinations,

involving, for example, new kinds of inputs. Unexpected change will feed plan revisions. And such revisions may result in changes in the boundaries of the firm. The reason? New combinations of resources will sometimes involve new inputs that are totally specific to the firm (Lachmann 1956). But it is often not possible to transmit precise knowledge about input requirements over the boundaries of the firm without high levels of information costs. Economizing on such costs may dictate internalization of production of the relevant input (Silver 1984).

Furthermore, the entrepreneur may decide to internalize the transaction simply because he thinks that his firm can produce the needed equipment in a more productive cost-effective way than can the market (other firms). The opportunity costs of purchase in the market are prohibitive, not necessarily because of incentive problems because of opportunistic suppliers, but simply because—as the entrepreneur ascertains the situation—the firm can produce more cost-efficiently. The reason? The firm as an evolved entity with a bundle of various resources held together by entrepreneurial direction and the rules that evolve within the framework of purpose defined by the entrepreneur, is fundamentally an entity that is specialized in *knowledge*. And such knowledge is costly to transfer (Demsetz 1988). So whether we look on it from the angle of knowledge-transmission costs or from that of production costs, we are led to a dynamic theory of firm boundaries, one that takes seriously the Austrian notions of dispersal, subjectivity, and tacitness of knowledge.

Conclusion

In the above, I have taken the theme of Austrian economics and economic organization through several variations. I hope to have taken steps towards establishing that not only were the Austrians important precursors of the contemporary theory of economic organization, but they may also contribute to existing theory as well as provide their distinctive perspective on economic organization. Space limitations have dictated, however, that I have been able to only scratch the surface. Assuredly, there is much more to be done on all the three themes I have been discussing, particularly on the last, constructive one.

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[1] It should be noted that the term "neo-institutional" is often applied generally to modified neoclassical economics (property rights theory) (e.g., Eggertson 1990) as well as more process-oriented and heterodox influences (e.g., Langlois 1986).

[2] When I talk about "Austrians" in this article, I side-step the differences that exist between the Hayekian and the Misesian approaches to Austrian economics. While I do not deny that differences exist, research on this distinction is still only in its beginning. See Salerno (1990).

[3] Among the few Austrian contributions that deal explicitly with the theory of the firm are O'Driscoll and Rizzo (1985, pp. 122–25), Littlechild (1986, p. 35), Boudreaux and Holcombe (1989), Thomsen (1989, chap. 4), and Ikeda (1990). Contributions explicitly influenced by Austrian economics are Malmgren (1961), Ricketts (1987), Witt (1987), Loasby (1989), and Langlois (1991).

[4] The words "firm," "business enterprise" or substitute terms do not figure in the indexes to Menger (1871), Mises (1949), and Lachmann (1956, 1986).

[5] A principal-agent *relation* is said to exist when a principal wants a task to be carried out by an agent on the principal's behalf. A principal-agent *problem* exists when there is some kind of conflict of interest between the two and when the principal either cannot observe the actions of the agent (moral hazard) or cannot ascertain whether the agent has made the best use of the knowledge he possesses (adverse selection).

[6] This section draws on material in Foss (1993b).

[7] As argued in Foss (1991) it was the breakthrough of the

theory of monopolistic competition in the mid-1980s that established this assumption of uniformity. For an Austrian comment on this episode, see Kirzner (1979, p. 133–35).

[8] This, of course, is not totally correct since Frank Knight in 1921 had provided an economic rationale for the existence of the firm. Basically, his theory of the firm is closely akin to the way I later in this article interpret the Austrian theory of the firm, since it is basically entrepreneurial: The firm exists as the entrepreneur's means to realize his judgment. For a comparison of Coase's and Knight's theories of the firm, and a ringing endorsement of Knight's theory, see Boudreaux and Holcombe (1989) (and for a moderator, see Foss 1993a).

[9] A referee pointed out that Armen Alchian under the influence of Williamson has changed his mind on this point. See Alchian (1984, p. 36).

[10] As Hayek (1973, pp. 49, 50) puts it: "[W]hat distinguishes the rules which will govern action within an organization is that they must be rules for the performance of assigned tasks. They presuppose that the place of each individual in a fixed structure is determined by command and that the rules each individual must obey depend on the place which he has been assigned and on the particular ends which have been indicated for him by the commanding authority. . . . [T]he general rules of law that a spontaneous order rests on aim at an abstract order, the particular or concrete content of which is not known or foreseen by anyone; while the commands as well as the rules which govern an organization serve particular results aimed at by those who are in command of the organization."

[11] Coase does not seem, however, to have been directly inspired by the calculation debate, although his article contains a reference to Hayek's 1933 essay, "The Trend of Economic Thinking." As Coase has later reported (1988), he had the crucial insight already in 1931, well before the calculation debate in its Anglo-Saxon form took place.

[12] It is precisely in such a context that Williamson (1985, p. 8; 1991, p. 162) praises Hayek (not Mises). Misesian insights appear when Williamson discusses the adaptive properties of the hierarchy and in this context refers to Mises's (1949) distinction between "case probability" and "class probability" (Williamson 1985, p. 58).

[13] As Nelson (1981, p. 95) comments: "I propose that serious analysis of the strengths and weaknesses of private enterprise must come to grips with [the] bounded rationality

problem. Arguments for private enterprise must take the form that, given man's limitations, patched up private enterprise is as good an organizational solution as can be devised."

It should be noted, however, that the bounded rationality problem that Nelson highlights is not identical with the knowledge problem identified by the Austrians. Whereas Nelson, following Simon, primarily focuses on the problems of processing vast amounts of already existing information, the Austrians focus on the problem of *discovering* the relevant knowledge in the first place. For a careful analysis of this point, see Thomsen (1989, chap. 4).

[14] The most important contribution in the interim is probably Knight (1924) in which Pigovian welfare analysis is critiqued on property-rights grounds.

[15] The most comprehensive older Austrian discussion of economic organization within a capitalist economy appears in Mises's *Socialism* (1936), where vertical and horizontal integration and disintegration—among other things—is discussed in 7 pages (pp. 327–33). Here Mises explains that the firm's optimal size is determined "by the complementary quality of the factors of production," but does not, unfortunately, expand on this (p. 328). The discussion is formulated in the context of the Smithian perspective on the progressive division of labor. Rothbard (1962, pp. 544–50) discusses vertical integration and the size of the firm. Applying Austrian insights from the calculation debate, Rothbard argues that it is increasing calculation difficulties as the firm increases that set limits to the size of the firm. Despite a favorable reference to "the challenging article of R. H. Coase" (p. 901), there is no mention of transaction costs.

[16] Simon's (1991, p. 27) parable of the "confused" mythical Martian is illustrative here: The Martian is approaching the Earth with a special telescope that reveals social structures. Boundaries of firms show up as green contours, and market transactions show up as red lines. Simon then states that "A message is sent back home, describing the scene, would speak of 'large areas bounded in green connected by a web of red lines.' It would not speak of 'a network of red lines connecting green spots.'"

[17] In fact, the nexus-of-contracts approach is much closer to the reasoning in Coase's 1960 contribution than it is to Coase's 1937 contribution (Foss 1993c).

[18] See Fama (1980). This assertion goes back to Coase

(1937). As he remarked in a critique of Knight (1921), Knight erred in seeing entrepreneurial judgment as a reason for the existence of the firm, since "we can imagine a system where all advice or knowledge were bought as required" (1937, p. 92). Coase totally missed Knight's point: it is precisely because idiosyncratic entrepreneurial judgment cannot be "bought as required" that the firm is needed (see also Boudreaux and Holcombe 1989; and Foss 1993a, 1993b).

[19] For example, Williamson's concept of "opportunism" is broader than the moral hazard assumption of the nexus-of-contracts tradition.

[20] This is not *strictly* correct since Williamson's "Fundamental Transformation" is a story about changes in inputs and technology (Foss 1993a, 1993b, 1993c).

[21] This would involve more, for example, than management's increased knowledge about the capabilities of the firm's employees. It would also involve the formation of what business analysts call "corporate culture," that is, a set of stable firm-specific rules that delimits intra-firm behavior. Culture does more than solve Austrian-type coordination problems; it may also dampen various sorts of proclivities to moral hazard, and thus harmonize incentives. For a relevant early discussion, see Malmgren (1961).

[22] That would, however, lead one into (fallaciously) identifying the firm with vertical integration. On this, see Boudreaux and Holcombe (1989) and Foss (1993a).

[23] Arguably, Mises took this last position. Thanks to Murray Rothbard for this point.

[24] In Foss (1993a, 1993b) I argue that this was basically Knight's (1921) theory of the firm. It should be noted that in a Knightian context, there is also a moral hazard to firm formation, since the entrepreneur's services—because of their tacitness—are particularly susceptible to moral hazard—and adverse selection problems (on this, see Barzel 1987).

[25] As Malmgren (1961) argued, the emergence of behavior-coordinating Schelling points is not only a characteristic of the market, but perhaps even more of the firm. Fundamentally, when business analysts talk about firms as possessing different "cultures," what they—in this interpretation—mean is that firms come equipped with different Schelling points.

F. A. Hayek on Government and Social Evolution: A Critique

Hans-Hermann Hoppe

> *As much market as possible, as much state as necessary.*
>
> (Motto of the 1959 Godesberg-program of Germany's Socialdemocratic Party)

Thesis One:

Friedrich A. Hayek is generally known as a champion of the free market economy and an outspoken anti-socialist; indeed, Hayek's life was a noble, and mostly lonely struggle against a rising tide of statism and statist ideologies. These facts not withstanding, however:

(1) Hayek's view regarding the role of market and state cannot systematically be distinguished from that of a modern social democrat; and
(2) the immediate reason for Hayek's social democratic views is his contradictory and hence nonsensical definition of "freedom" and "coercion." (Another, fundamental epistemological reason—Hayek's self-contradictory anti-rationalism—will be addressed in Thesis Two.)[1]

On Government

According to Hayek, government is "necessary" to fulfill the following tasks (and may acquire the means necessary to do so through taxation)[2]: Not merely for "law enforcement" and "defense against external enemies," but "in an advanced society government ought to use its power of raising funds by taxation to provide a number of services which for various reasons cannot be provided, or cannot be provided adequately, by the market."[3] (Since at all times an infinite number of goods and services

which a market does *not* provide exist, Hayek hands government a blank check.) Among these are "protection against violence, epidemics, or such natural forces as floods and avalanches, but also many of the amenities which make life in modern cities tolerable, most roads . . . the provision of standards of measure, and of many kinds of information ranging from land registers, maps and statistics to the certification of the quality of some goods or services offered in the market."[4] Additional government functions are "the assurance of a certain minimum income for everyone"[5]; government should "distribute its expenditure over time in such a manner that it will step in when private investment flags"[6]; it should finance schools and research as well as enforce "building regulations, pure food laws, the certification of certain professions, the restrictions on the sale of certain dangerous goods (such as arms, explosives, poisons and drugs), as well as some safety and health regulations for the processes of production and the provision of such public institutions as theaters, sports grounds, etc. . . . ,"[7]; and it should make use of the power of "eminent domain" to enhance the "public good."[8]

Moreover, it generally holds that "there is some reason to believe that with the increase in general wealth and of the density of population, the share of all needs that can be satisfied only by collective action will continue to grow."[9]

In the *Constitution of Liberty* Hayek wanted government to provide further for "monetary stability" (while he later on preferred a bizarre scheme for monetary denationalization)[10]; government should implement an extensive system of compulsory insurance ("coercion intended to forestall greater coercion")[11]; public, subsidized housing was a possible government task[12]; likewise, "city planning" and "zoning" were considered appropriate government functions—provided that "the sum of the gains must exceed the sum of the losses"[13]; and lastly "the provision of amenities of or opportunities for recreation, or the preservation of natural beauty or of historical sites or places of scientific interest, . . . natural parks, nature-reservations, etc.," were regarded as government tasks.[14]

Moreover, Hayek insists we recognize that it is irrelevant how big government is or if and how fast it grows. What alone is important is that government actions fulfill certain formal requirements. "It is the character rather than the volume of government activity that is important."[15] Taxes as such and

the absolute height of taxation are not a problem for Hayek. Taxes—and likewise compulsory military service—lose their character as coercive measures, "if they are at least predictable and are enforced irrespective of how the individual would otherwise employ his energies; this deprives them largely of the evil nature of coercion. If the known necessity of paying a certain amount in taxes becomes the basis of all my plans, if a period of military service is a foreseeable part of my career, then I can follow a general plan of life of my own making and am as independent of the will of another person as men have learned to be in society."[16] But please, it must be a *proportional* tax and *general* military service!

In light of this terminological hocus-pocus and the above cited list of legitimate government functions, the difference between Hayek and a modern social democrat boils down to the question whether or not the postal service should be privatized (Hayek says "yes").

On Freedom and Coercion

The last quote in support of the previous thesis is at the same time confirmation of the thesis that Hayek's social-democratic theory of government finds its explanation in the absurdity of his definition of freedom and coercion.[17]

Hayek defines freedom as the absence of coercion. However, contrary to a long tradition of classical liberal thought, he does *not* define coercion as the initiation or the threat of physical violence against another person or its legitimately—via original appropriation, production or exchange—acquired property. Instead, he offers a definition whose only merit is its fogginess. By coercion "we mean such control of the environment or circumstances of a person by another that, in order to avoid greater evil, he is forced to act not according to a coherent plan of his own but to serve the ends of another,"[18] or "coercion occurs when one man's actions are made to serve another man's will, not for his own but for the other's purpose."[19] Freedom, by contrast, is "a state in which each can use his own *knowledge* [not: his own *property*] for his own purposes."[20]

This definition does not contain anything regarding actions, scarce goods and property. Rather, "coercion" refers to a specific configuration of subjective wills (or plans, thoughts and expectations). Yet then it is useless for the following reason. First, it is useless as a guideline for actions (what am I allowed to

do here and now if I do not want to commit a coercive act?), because in general I do not know the will or plans of others and in any case, to know all other wills completely would be impossible. Even if I wanted to, I could never be sure from the outset (*ex ante*) that what I was planning to do would not coerce anyone. Yet individuals obviously must be permitted to act "correctly" *prior* to knowing anything about the plans of others, and even if they knew literally nothing but their own plans. For this to be possible, however, the criterion employed to distinguish between "freedom" and "coercion" must be an *objective* one. It must refer to an event/non-event that possesses a *physical* description (and over whose outcome an actor must possess physical control). Second, Hayek's definition is also useless as a retrospective (*ex-post*) criterion of justice (is the accusation of *A* against *B* justified; who is guilty and who isn't?). As long as *A* and *B* come to the *same* conclusion concerning innocence and guilt (including such questions as compensation and/or punishment), no problem arises for Hayek's criterion. However, in the case of unanimity *no* criterion can ever fail. Hayek's criterion fails miserably in those cases, though, for which it is intended: whenever plaintiff and defendant do *not* agree, and still a verdict must be reached. Since Hayek's definition does not contain any physical (intersubjectively ascertainable) criteria, his judgments are arbitrary. As mental predicates, Hayek's categories of freedom and coercion are compatible with every real, physical state of affairs. They possess no power to make *real* distinctions.

Correspondingly confused and contradictory are Hayek's attempts to apply his definitions:

1. In applying his definition, Hayek on the one hand reaches the conclusion that the initiation and threat of physical violence constitutes "coercion." "The threat of force or violence is the most important form of coercion."[21] "True coercion occurs when armed bands of conquerors make the subject people toil for them, when organized gangsters extort a levy for 'protection'."[22] On the other hand (witness the quotations above) he classifies acts of the initiation or threat of physical violence such as compulsory military service or taxes as "non-coercive," provided only that the victims of such aggression could have reliably expected and adjusted to it.

2. On the one hand, Hayek identifies physical violence with "coercion." On the other hand, he does not accept the *absence* of physical violence or damage as a criterion for "non-coercion."

"The threat of physical force is not the only way in which coercion can be exercised."[23] Even if *A* has committed no physical aggression against *B* or his property, he may nonetheless be guilty of "coercion." According to Hayek, this is the case whenever *A* is guilty of *omitted help* vis-à-vis *B*, i.e., whenever he has *not* provided *B* with goods or services of his (*A*'s), which *B* had expected from him and regarded as "crucial to my existence or preservation of what I most value."[24] Hayek asserts that only a small number of cases actually fit this criterion: The owner of a mine in a mining town who decides to disemploy a worker allegedly "coerces"; and likewise it is supposedly "coercive" if the owner of the sole water supply in a desert is unwilling to sell this water, or if he refuses to sell it at a price which others deem "fair." But it requires little imagination to recognize that Hayek's criterion is in fact all-encompassing. Any peaceful action a person may perform can. be interpreted by others—and indeed any number of them—as constituting "coercion," for every activity is at the same time always the omission of innumerable other *possible* actions, and every omission becomes "coercion" if a single person claims that the execution of the omission was "crucial to the preservation of what I most value."

Whenever cases of omitted help and physical violence are categorically identified as "coercion," however, inescapable contradictions result.[25] If *A*'s omission constitutes "coercion" toward *B*, then *B* must possess the right to "defend" himself against *A*. *B*'s only "defense" would be that he could employ physical violence *against A* (to make *A* execute what he otherwise would avoid doing)—but then acts of physical violence could no longer be classified as "coercion"! Physical violence would be "defense." In this case, "coercion" would be the peaceful refusal to engage in an exchange as well as the attempt to defend oneself against all forced (under the threat of violence executed) exchange. On the other hand, if physical violence were defined as "coercion," then *B* would *not* be allowed to "defend" himself against an omissive *A*; and if *B* nonetheless attempted to do so, then the right to defense would rest with *A*—but in this case, omissions could not constitute "coercion."

3. From these conceptual confusions stems Hayek's absurd thesis of "the unavoidability of coercion" and his corresponding, equally absurd "justification" of government. "Coercion, however, cannot be altogether avoided because the only way to prevent it is by the threat of coercion. Free society has met this

problem by conferring the monopoly of coercion on the state and by attempting to limit this power of the state to instances where it is required to prevent coercion by private persons."[26] According to both of Hayek's definitions of "coercion," this thesis is nonsensical. If omitted help represents "coercion," then coercion in the sense of physical violence becomes necessary (not: unavoidable). Otherwise, if the initiation and threat of physical violence is defined as "coercion," it can be avoided; first, because each person possesses control over whether or not he will physically attack another; and second, because every person is entitled to defend himself with all of his means against another's physical attack. It is only unavoidable that so long as physical aggression exists, there will also be a need for physical defense. Yet the unavoidability of defensive violence has nothing to do with the alleged "unavoidability of coercion" (unless one confused the categorical difference between attack and defense and asserted that the threat of defending oneself in the event of an attack is the same kind of thing as the threat of attacking). If physical violence is *forbidden*, then it follows that one is *allowed to defend* oneself against it. It is thus absurd to classify attack and. defense under the same rubric of "coercion." Defense is to coercion as day is to night.

Yet from the unavoidability of *defense* no justification for a government monopoly of coercion follows. To the contrary. A government is by no means merely a "monopolist of defense" who helps private individuals avoid otherwise "unavoidable" defense expenditures (as a monopolist: inefficiently). Because it could otherwise provide no defense activities, the government's monopoly of coercion includes in particular the *right* of the state to commit violence against private citizens and their complementary *obligation* not to defend themselves against government attacks. But what kind of justification for a government is this: that if a person surrenders unconditionally to an attacker he may save himself otherwise "unavoidable" defense expenditures?

Thesis Two:

The fundamental epistemological reason for Hayek's nonsensical theory of government and coercion is to be found in Hayek's systematic anti-rationalism.

(1) This anti-rationalism expresses itself first in the fact that

Hayek rejects the idea of a cognitive ethic. Hayek is an ethical relativist (who, as already shown, does not even consider an unambiguous moral distinction between attack and defense to be possible).

(2) Second—in an even more dramatic fashion—Hayek's anti-rationalism is expressed in his "theory of social evolution," where purposeful action and self-interest, trial, error and learning, force and freedom as well as state and market (society) have been systematically eliminated as explanatory factors of social change and replaced with an obscure "spontaneity" and a collectivistic-holistic-organizistic principle of "cultural group selection." (Hayek's citation of Carl Menger as precursor of his own theory is false. Menger would have ridiculed Hayek's theory of evolution as mysticism. Menger's successor is not Hayek, but Ludwig von Mises and his "social rationalism."[27])

On Ethics

"Moreover, if civilization has resulted from unwanted gradual changes in morality, then, reluctant as we may be to accept this, no universally valid system of ethics can ever be known to us."[28] Furthermore, "Evolution cannot be just. . . . Indeed, to insist that all future change to be just would be to demand that evolution come to a halt. Evolution leads us ahead precisely in bringing about much that we could not intend or foresee, let alone prejudge for its moral properties."[29] Or: "To pretend to know the desirable direction of progress seems to me to be the extreme of hubris. Guided progress would not be progress."[30] (So much for the question whether or not Hayek can give any advice to the former communist countries of Eastern Europe: he suggests nothing but banking on "spontaneous evolution.")

It is characteristic of Hayek's anti-rationalism that he does not prove this counter-intuitive thesis, as is necessary. Indeed, he does not even attempt to make it plausible.

It is the same anti-rationalism that leads Hayek to state—often merely a few pages apart—something seemingly completely different (logical consistency is not a necessary requirement for an anti-rationalist). For instance, "Where there is no property there is no justice."[31] And John Locke is quoted approvingly with a passage which could not possibly be more rationalist: "'Where there is no property there is no justice', is a proposition as certain as any demonstration in Euclid: for the

idea of property being a right to anything, and the idea to which the name injustice is given being the invasion or violation of that right; it is evident that these ideas being thus established, and these names annexed to them, I can as certainly know this proposition to be true as that a triangle has three angles equal to two right ones."[32]

Lastly, it is characteristic of Hayek when only one page later, while one is still wondering how to square the Lockean idea of an Euclidean ethic with the thesis of the "impossibility" of an universally valid ethic, Hayek returns, in a sudden dialectic twist to his relativistic point of departure. "The institutions of property, as they exist at present, are hardly perfect; indeed, we can hardly yet say in what such perfection might consist."[33] "Traditional concepts of property rights have in recent times been recognized as a modifiable and very complex bundle whose most effective combinations have not yet been discovered in all areas."[34] In particular the investigations of the Chicago school (Coase, Demsetz, Becker and others) "have opened new possibilities for future improvements in the legal framework of the market order."[35]

Hayek does not think it worth mentioning or he does not recognize, that the property theories of Locke and the Chicago school are incompatible. According to Locke, the principles of self-ownership, original appropriation (homesteading), production and voluntary exchange are universally valid ethical norms. Locke's theory of private property is a theory of justice, and Locke is an ethical absolutist. In contrast, the representatives of the Chicago school deny the possibility of a rational, universally valid ethic. There exists no justice in Chicago. Who owns what and who does not, and likewise who is the attacker and who the victim, is for Coase and colleagues not once and for all fixed and settled and does not depend on who has done what in the past. Instead, property titles are to be distributed among people, and with changing circumstances redistributed, in such a way that future economic efficiency is maximized. The person who is expected to make the most efficient use of a resource—as "measured" in terms of money—becomes its owner; he who will have to bear the lower monetary costs if he were to avoid the disputed activity is declared the attacker in a property-rights dispute; and whenever in the course of time the roles of the most efficient user or the "least cost avoider" change from one person to another, property titles must be accordingly redistributed.[36]

On Social Evolution

The mystic-collectivistic character of Hayek's theory of spontaneous social evolution comes to light in passages such as these:

1. "In the process of cultural transmission, in which modes of conduct are passed on from generation to generation, a process of selection takes place, in which those modes of conduct prevail which lead to the formation of a more efficient order for the whole group, because such groups will prevail over others."[37]

2. "In so far as such rules have prevailed because the group that adopted them was more successful, nobody need ever have known why that group was successful and why in consequence its rules became generally adopted."[38]

3. "Culture . . . is a tradition of learnt rules of conduct which have never been 'invented' and whose function the acting individuals usually do not understand. . . , the result of a process of winnowing and sifting, directed by the differential advantages gained by groups from practices adopted for some unknown and perhaps purely accidental reasons."[39] "Man did not adopt new rules of conduct because he was intelligent. He became intelligent by submitting to new rules of conduct."[40] "We have never designed our economic system. We were not intelligent enough for that. We have tumbled into it and it has carried us to unforeseen heights and given rise to ambitions which may yet lead us to destroy it."[41]

4. Civilization "resulted not from human design or intention but spontaneously: it arose from unintentionally conforming to certain traditional and largely moral practices, many of which men tend to dislike, whose significance they usually fail to understand, whose validity they cannot prove, and which have nonetheless fairly rapidly spread by means of an evolutionary selection—the comparative increase of population and wealth—of those groups that happened to follow them."[42] "Moral traditions outstrip the capacities of reason."[43] "Mind is not a guide but a product of cultural evolution, and is based more on imitation than on insight or reason."[44]

Hayek's theory, then, consists of these three propositions:

(1) A person initially performs a spontaneous action—without knowing why and for what purpose; and a person retains this practice for no reason—whether or not it has resulted in

a success (for without purpose and goal there *can* be no success and no failure). (Cultural mutation.)

(2) The new practice is imitated by other group members—again without any motive or reason. The proliferation of the practice comes to a halt once all group members have adopted it. (Cultural transmission.)

(3) Members of other groups do *not* imitate the practice.

Those groups which spontaneously adopt and unconsciously imitate a *better* moral practice will exhibit a comparatively higher population growth, greater wealth, or otherwise somehow "prevail." (Cultural selection.)

Hayek claims that this theory explains the evolution of private property, of the division of labor and of exchange as well as of money and government. In fact, however, these practices and institutions provide perfect examples for demonstrating the theory's entire absurdity (such that Hayek cannot help but contradict his own theory over and again).[45]

Cultural Mutation

Hayek's theory of spontaneity may apply to vegetables (although it would even run into difficulties here because of Hayek's explicitly assumed "Lamarckism"[46]), but it is definitely not applicable to human actors. Every action involves the purposeful employment of scarce means, and every actor can always distinguish between a successful and an unsuccessful action. The concept of an unconscious-spontaneous action à la Hayek is a *contradictio in adjecto*. Acting is always conscious and rational. Hence Hayek's theory leads to an inescapable dilemma: If one applies Hayek's theory to itself, then his own activity of writing books is nothing but a purposeless emanation regarding which the questions of true or false and of success or failure simply do not arise. Or Hayek's writing represents a purposeful action. In this case his theory is obviously false, however, because in enlightening himself (and us) regarding the course of social evolution, Hayek no longer acts spontaneously but instead tries to shape social change consciously and rationally.

Regarding in particular the problem of the origin of private property, it is only necessary to insert into proposition (1) practices such as the original appropriation of a previously unowned good or the production of a capital good to immediately recognize its absurdity. Appropriation and capital

goods production are purposeful activities. One engages in original appropriation and produces capital goods because one prefers more goods over less and recognizes the greater physical productivity of appropriated land and capitalist production. Even if the *invention* of a capital good such as, for example, a hammer or an axe, first happened by *accident*, the inventor still recognized for what purpose it was useful, and any *repetition* of the invented practice then occurred purposefully and with reason.

Cultural Transmission

Equally absurd is Hayek's theory of "spontaneous association" through unconscious imitation. The imitation of the practices of original appropriation and indirect, capitalist production by others is likewise motivated by the desire for greater personal wealth. It is a justified imitation. Neither external force, chance nor spontaneity are necessary to explain it. Nor are they required in order to then explain the emergence of division of labor and interpersonal exchange. People recognize and have always recognized that division of labor and voluntary exchange lead to greater physical productivity than if one were to remain in self-sufficiency.[47] Likewise, for the origin of a monetary economy one must not wait for a spontaneous mutation. Under conditions of uncertainty, in any barter economy sales-stop-pages are bound to arise (whenever a double coincident of wants is absent). In this situation a person can nonetheless still increase his own wealth, if he recognizes that goods may be employed not only for personal use but also as a medium of exchange—for resale purposes—and if he then succeeds in acquiring a more marketable good in exchange for a less marketable one. The demand for a good *qua* medium of exchange further increases this good's marketability. The practice will be imitated by others to solve their own sales problems, and in the course of a self-reinforcing process of imitation, sooner or later a single universal medium of exchange—a commodity money—will emerge, which is uniquely distinguished from all other goods in being the one with the highest degree of resaleability.[48]

None of this is the result of chance. Everywhere, at the origin of private property, exchange and money, individual purpose, insight and self-interested action are at work.

Indeed, so patently wrong is his theory that Hayek frequently withdraws to a second, more moderate variation.

According to this version, division of labor and exchange are "the unintended consequences of human action," "the result of human action but not of human design."[49] The process of human association may not proceed entirely unconsciously, but largely so. An actor may be able to recognize his personal gains from acts of appropriation, production, exchange and money-use—and insofar, the process of evolution may appear rational. However, an actor can*not* recognize the *indirect* consequences of his actions (and it is allegedly these unconscious, unintended consequences for society as a whole which are decisive for the evolutionary success or failure of individual practices). And since *these* consequences can*not* be known, the process of social evolution is ultimately irrational,[50] motivated not by true or false ideas and insights, but by a blind, unconsciously-effective mechanism of group selection.

However, this variant also is contradictory and absurd.

First, it is self-contradictory to characterize actions by their unconscious indirect consequences and then, in the next breath, name these consequences. If the indirect consequences can be named and described, they also can be intended. Otherwise, if they are indeed unconscious, nothing can be said about them. Something about which one cannot say anything, obviously cannot have an identifiable influence on anybody's actions; nor can it be made responsible for the different evolutionary success of different groups. Thus, from the outset it is nonsensical to describe—as Hayek does—the task of a social theorist as that of explaining the "unintended patterns and regularities which we find to exist in human society."[51] The task of the social theorist is to explain the direct as well as the indirect (*not*: the intentional and the unintentional) consequences of human actions and to thus contribute to a progressive rationalization of human action—an expansion of the knowledge of possible (intendable) goals and the mutual compatibility or incompatibility of various goals.[52]

Secondly, the moderate variation also cannot explain the origin of division of labor, exchange and money. One can grant Hayek initially that it may be possible that a person who carries out an exchange or who acquires a medium of exchange for the very first time will thereby recognize only his own personal gain (but not the indirect, social consequences). He may not know (and mankind at its beginnings certainly did not know) that as an exchanger and a money user he contributes ultimately to the development of a world market, integrated through a single,

universally employed commodity money (historically: gold), to steady population growth, to an ever more expansive division of labor and continuously growing global economic wealth. Moreover, it is impossible in principle to predict today (or at any present time) the diversity, quantities, prices and personal distribution of future goods. But from this Hayek's skeptic-anti-rationalist conclusion—that "guided progress is no progress," that "we cannot prejudge the moral properties of evolutionary outcomes," and that "we have never designed our economic system but have tumbled into it, and it may yet lead us to destruction"—does not follow.

For even if a person does not immediately grasp the indirect social consequences of his own actions, it is difficult to imagine how this ignorance could last for long. Once *repeated* exchanges between specific traders occur, or once one sees one's own practice of acquiring a medium of exchange copied by others, one begins to recognize that one's own actions are not only one-sided but *mutually* beneficial. Even if one were still unable to systematically predict the development of future markets and the shape and composition of future wealth, then, with the nature of a bilateral exchange and a medium of exchange one would at the same time recognize the *principle* of interpersonal justice and of individual and universal economic progress: whatever results emerge from voluntary exchanges are just; and economic progress consists of the expansion of the division of labor based upon the recognition of private property and the universalization of the use of money and monetary calculation. Even if the division of labor, money and economic calculation become *routine* in the course of time, the recognition of the foundations of justice and economic efficiency never again completely disappears. Once for whatever reason it comes to a complete breakdown of the division of labor (war) or the currency (hyperinflation), people will be reminded of it. Then they must not unconsciously await the further course of social evolution—their own extinction. Rather, they are capable of recognizing the breakdown as such and know (and have always known) how to begin systematically anew.

Moreover, as the examples cited by Hayek of Carl Menger and Ludwig von Mises clearly demonstrate, it must not even come to a catastrophe before one regains consciousness. As soon as one has comprehended the thoughts of these men, one can act in full understanding of the social consequences of one's activities. The evolution does not proceed *above* the heads of the

acting individuals but instead becomes a process of consciously planned and/or experienced social change. Each progression and each mishap in the process of economic integration can be identified and explained, and the conscious identification of mishaps in particular makes it possible that one may either consciously adjust to a catastrophe *before* it actually occurs or that a mistake will be consciously corrected (insofar as one possesses control over it).

Furthermore, just as people are not condemned to blindly tumble toward self-destruction, they also must not remain passive and powerless vis-à-vis a foreseen economic decline. Rather, at all times one can systematically expand the range of controllable—and hence correctable—mistakes. For any *institutionalized* derailment in the process of economic integration and association—such as government expropriations, taxes, currency depreciations or trade restrictions—must have the approval of the majority of the public. Without such support in public opinion, however reluctant it may be, their continued enforcement becomes impossible. Thus, in order to prevent a decline, no more—and no less—than a change in public opinion is necessary; and public opinion can be influenced at all times by ideas and ideologies.[53]

Ironically, an unconscious economic decline is only possible if the majority of the public follows Hayek's advice to act 'spontaneously'—without really knowing why—and free of 'the extreme hubris of knowing the direction of progress'. One cannot act entirely without consciousness, of course. Yet in accordance with Hayek's recommendation one pays attention exclusively to the direct and immediate causes and consequences of one's actions and wealth. In contrast, knowledge and ideas regarding any indirect, to the naked eye invisible causes and consequences are considered unimportant, arbitrary or even illusory. One participates routinely in the division of labor because one recognizes its direct advantage; and one recognizes the direct harm of taxes, currency depreciations and trade restrictions. However, one does *not* recognize that by participating in the division of labor, one at the same time indirectly advances the welfare of all other market participants literally to the last corner of the earth, and indeed that the higher the personal profit, the greater one's contribution to the public good. Nor does one recognize that the direct harm done through government intervention to others, whether in the immediate neighborhood or at the other end of the world, always indirectly diminishes

one's own standard of living. Yet this ignorance has fatal consequences; for he who does not understand the indirect causes and consequences of his actions acts differently. He will either act as if the economic advantage or disadvantage of one person has nothing to do with that of another—and he will accordingly remain neutral or indifferent toward all government intervention which is directed against others. Or he may even act in the belief that one person's gain can be another's loss; and then he may even welcome government expropriation, taxes, currency devaluations or trade restrictions as means of bringing 'restitution' to 'unfair' losers (preferably oneself and one's own kind). As long as this intellectual attitude prevails in public opinion, a steady increase in government expropriation, taxes, inflation and trade restrictions, and the subsequent continuous economic decline, is indeed unavoidable.

However, Hayek's advice is false and nonsensical. It is impossible to act unconsciously or knowingly to be ignorant. And even if the indirect social causes and consequences of one's actions are unknown, they are still—with some delay and however mediated—effective. Thus, to know them is always and for everyone advantageous. The only beneficiary of Hayek's recommendation to the contrary is government. Only the representatives of state and government can have a personal interest in spreading a Hayekian consciousness (while they themselves recognize it as a "false consciousness"), because vis-à-vis an ignorant public it becomes easier for government to grow. Yet the public at large outside the state apparatus has no interest in entertaining a false consciousness (and thus know less than its government). It is personally advantageous to let one's actions be guided by correct ideas, and accordingly one is always receptive to ideological enlightenment. Knowledge is better than ignorance. And because it is better, it is at the same time infectious. However, as soon as the public is enlightened and a majority of it recognizes that everyone's participation in an exchange economy simultaneously benefits all other market participants, and that every government intervention in the network of bilateral exchange relations, regardless where and against whom, represents an attack on one's own wealth, an economic decline is no longer unavoidable. On the contrary, rather than remaining indifferent or even welcoming government intervention, the public will be unsupportive or even hostile to them. In such a climate of public opinion, instead of economic decline, a process of conscious social rationalization and

continuously advancing economic integration will result.

Cultural Selection

According to Hayek, however, progress has nothing to do with enlightenment. As little as one is capable of recognizing the reasons for an economic decline, as little is progress due to insight. Just as one tumbles unconsciously and powerlessly into the abyss, so one stumbles blindly forward. It is not true or false ideas that determine the course of social evolution, but mystic fate. Progress occurs *naturally*, without any insight of the participating individuals, as one group with coincidentally *better* practices somehow 'prevails' over another with *worse* practices.

Apart from the fact that this theory is incompatible with Hayek's own repeated observation that cultural evolution proceeds faster than biological evolution,[54] it is false for two reasons. First, the theory contains assumptions which make it inapplicable to human societies. Second, when it is nonetheless applied to them, the theory turns out empty and Hayek again reveals himself—intentionally or unintentionally—as a state apologist.

To make his theory work, Hayek first must assume the existence of *separated* groups. Hayek introduces this assumption when he alleges that a new "spontaneous" practice will be blindly imitated *within* a group, but not (why not?) outside of it. If the practice were imitated universally and if, accordingly, there existed only one single group, cultural group *selection* would by definition be impossible. Without some sort of competitor there can be no selection. Moreover, without selection, the concept of progress can no longer be employed meaningfully. All that can be stated regarding a "spontaneously"—without purpose or reason—generated and spontaneously universalized practice is this: that as long as it is practiced, it has not yet died out.

However, the assumption of separated groups, which Hayek must introduce in order to rescue the concept of cultural progress (within his anti-rationalist theory of action and society), immediately produces a series of insurmountable problems for his theory. First, it follows that Hayek's theory cannot be applied to the present. The present world is characterized by the fact that the practices of original appropriation and property, of capital goods production, exchange and monetary calculation are universally disseminated—no group in which these practices are

completely unknown and absent exists—and that all of mankind is connected through a network of bilateral exchanges. In this regard, mankind is a single group. Whatever competition between different groups may then exist can have no relevance for these universal practices. Universal practices lie—as a constant—outside of any selection mechanism; and according to Hayek's theory, no more could then be said for the justification of original appropriation, capital goods production, or division of labor and exchange than that such practices have not yet died out.

Hayek's theory is also inapplicable to pre-modern or primitive societies. At this stage in human history, isolated groups existed. Yet even then, the practices of appropriation, production and exchange were universal. There existed no tribe, however primitive, that did not know and practice them. This fact does not cause any problems for a theory of action and society which recognizes these practices as the result of rational, utility-maximizing action. For such a theory, the fact is easily explainable: Each group comes to recognize independently the very same, universally valid rules. But for Hayek, this elementary fact constitutes a fundamental theoretical problem. For if appropriation, production, exchange and money are the result of spontaneous mutation, blind imitation, infection or mechanical transmission, as Hayek claims, it becomes inexplicable—except by reference to chance—why each group, in complete isolation from all others, should come up with the exact same patterns of action. Following Hayek's theory one should expect instead that mankind, at least at its beginnings, would have generated a variety of very different action and society mutants. In fact, if Hayek were correct, one would have to assume that in the beginning of mankind people would have adopted the practice of *not* appropriating, *not* producing and *not* exchanging as frequently as they adopted the opposite. Since this is obviously *not* the case Hayek would have to *explain* this anomaly. Once he identified the obvious reason for this fact, however,—that the adoption of the former practice leads to immediate death,[55] while the latter is an indispensable means for survival—he would have to acknowledge the existence of human rationality and contradict his own theory.

Secondly, even regarding isolated groups Hayek's theory of cultural group selection cannot explain how unconscious cultural progress could be possible. (His explanation of the concept of "prevailing" is accordingly vague.) Isolated groups—and even

more so, groups connected by trade—do not compete against each other. The assumption, familiar from the theory of biological evolution, that different organisms are engaged in a zero-sum competition for naturally limited resources cannot be applied to human societies, and hence any attempt to conclude backward from the survival of a phenomenon to its *better* adaptation (as it is, within limits, possible in biology) fails here. A group of persons isolated from all others, which follows the practices of appropriation, capital goods production and exchange does not thereby reduce the supply of goods of other groups. It enhances its own wealth without diminishing that of others. If it begins to trade with other groups, it even increases their wealth. Between human groups, it is not competition, but self-reliant independence or mutually advantageous cooperation that exists. A mechanism of cultural *selection* thus cannot become effective here.[56]

Hayek, in his self-made theoretical difficulties, nonetheless indicates several possibilities. “Prevailing” means either that one group becomes wealthier than another, that it displays a comparatively higher population growth, or that it militarily defeats and assimilates another one. Apart from the fact that these criteria are mutually incompatible—what is the case, for instance, if a more populous group is militarily defeated by a less populous one?—they all fail to explain *progress*. The apparently most plausible criterion—wealth—fails because the existence of groups with different wealth has no relevance for their survival or extinction. Two groups practice appropriation, production and exchange independently of each other. However, the members of both groups are neither biologically identical, nor is external nature (land) for both groups the same. From this it follows that the results of their actions—their wealth—will be different as well. This is the case for groups and individuals. For individuals, too, it holds that through the application of one and the same practice of appropriation, production and exchange, *different* wealth results. But then the inference from “greater wealth” to “better culture” is illegitimate. The richer person does not represent a *better* culture, and the poorer a *worse* one, but on the basis of one and the same culture one person becomes comparatively wealthier than another. Accordingly, no selection takes place. Both rich and poor co-exist—while as a result of their shared culture, the absolute wealth of rich and poor alike increases.

Likewise, population size fails as a criterion for cultural

selection. Group size, too, implies nothing concerning "better culture." Everything that holds for individuals applies to groups as well. From the fact that a person has no biological offspring, it does not follow that he followed other *worse* practices while he was alive. Rather, different individuals acting on the basis of the same rules produce different numbers of offspring. Just as poor to rich, the childless does not stand in competition to those with children. They exist independently of one another or they cooperate with one another. And even if a group should become literally extinct or if an individual committed suicide, this still would not imply any cultural selection. For the surviving follow the very same rules of appropriation, production and exchange which the extinct followed while they were alive.

The third criterion, the military conquest, succeeds in bringing groups out of a state of isolated independence or cooperation into one of zero-sum competition. However, military success no more represents moral progress than a murder indicates the moral superiority of the murderer over his victim. Moreover, the occurrence of a conquest (or of a murder) does not affect the validity of *universal* rules, i.e., those that *neither* the murderer *nor* the murdered can do without: In order to introduce a military conflict between groups, Hayek must first make the assumption that in at least one of these groups a new practice spontaneously springs up. Rather than following the practices of original appropriation, capital goods production and exchange, someone must have come up with the idea that one can also increase one's personal wealth by forcibly expropriating appropriators, producers and exchangers. However, as soon as this practice is then, according to Hayek's theory, blindly imitated by all other group members, a war of each against all would ensue. There would soon be nothing left that could still be expropriated, and all group members would die out—not because of a mechanism of cultural displacement or selection, but because of their own stupidity! Every person can independently appropriate, produce and exchange, but not everyone can expropriate appropriators, producers and exchangers. In order for expropriations to be possible, there must be people who continue to follow the practice of appropriation, production and exchange. The existence of a culture of expropriation requires the continued existence of a culture of appropriation, production and exchange. The former stands in a *parasitic* relationship to the latter. Then, however, military conquest cannot generate cultural progress. The conquerors do not represent a fundamentally

different culture. Among themselves the conquerors must follow the same practice of appropriation, production and exchange, which was also followed by the conquered. And *after* the successful conquest, the conquerors must return to these traditional practices—either because all the conquered have died out or all booty has been consumed, or because one wishes to institutionalize one's practice of expropriation and therefore needs an ongoing productive population (of conquered people).

However, as soon as Hayek's theory is applied to this only conceivable case of cultural competition (rather than of independence or cooperation) in which a subgroup (the conquerors) follows a parasitic culture of expropriation while the rest of the group (the conquered) simultaneously appropriates, produces and exchanges, the result is an unabashed apology for government and state.

This manifests itself first in the way in which Hayek's theory explains the origin of a culture of expropriation. Just as the culture of appropriation, production and exchange is allegedly the result of an accidental mutation, so the practice of expropriation represents a "spontaneous" development. Just as appropriators, producers and exchangers do not understand the meaning of their activities, so the conquerors do not grasp the meaning of conquest. As appropriators, producers and exchangers recognize the immediate personal advantage of their activities, so the conquerors can recognize their personal gain from acts of expropriation. Yet as the participants in a market economy are then not capable of understanding that through their activities the wealth of all other participants is simultaneously increased, so the conquerors cannot know that through expropriations the wealth of the expropriated is reduced. Put bluntly: A group of murderers, robbers or slave hunters does not know that the murdered, robbed or enslaved suffer thereby from a loss. They follow their practices as *innocently* as the murdered, robbed and enslaved follow their different practices of appropriation, production and exchange. Expropriation, taxes or trade restrictions are just as much an expression of human spontaneity as are appropriation, production and trade. Every group of conquerors will thank Hayek for so much (mis-)understanding!

Second, Hayek's theory fails just as lamentably in its attempt to explain the rise and fall of historical civilizations—and thereby once again yields absurd statist implications. Indeed, what more could a group of conquerors want to hear than that

its own actions have nothing to do with the rise and decline of civilizations. Yet it is precisely this that Hayek's theory implies: For, according to Hayek, cultural progress is only possible, as long as one culture can somehow "prevail" over another. Regarding the relationship between a basic culture of appropriation and a parasitic subculture of expropriation, however, there can be no "prevailing." The parasitic culture cannot prevail, yet as a subculture it can continue to operate as long as a basic culture of appropriation exists. Progress through group selection is impossible within this relationship; and according to Hayek, then, strictly speaking nothing can be stated at all regarding the further course of social evolution. Because the members of the culture of appropriation supposedly do not comprehend that they promote the social welfare through their actions, and because the members of the expropriation culture are equally ignorant of the fact that their actions reduce the general welfare, spontaneous changes in the relative magnitude of both cultures may occur. Sometimes the culture of appropriation will attract more spontaneous adherents; at other times the culture of expropriation will. However, since there is no reason that such spontaneous changes, if they occur at all, should follow any specific—predictable—pattern, there is also no recognizable relationship between spontaneous cultural changes and the rise and fall of civilizations. Everything is chance. No explanation for the rise and the fall of the Roman civilization exists. Likewise, no comprehensible reason for the rise of Western Europe or the United States exists. Such a rise could just as well have happened elsewhere—in India or Africa. Accordingly, it would be "extreme hubris," for instance, to advise India or Africa from the standpoint of Western Europe; for this would imply—oh, how presumptuous—that one knew the direction of progress.

If this theory is rejected as empty, however, and it is pointed out that from the very description of the initial situation—the coexistence of a basic culture of appropriation and a parasitic subculture of expropriation—a fundamental law of social evolution follows, Hayek's entire anti-rationalist system once again breaks down. A relative expansion of the basic culture leads to higher social wealth and is the reason for the rise of civilizations; and a relative expansion of the parasitic subculture leads to lower wealth and is responsible for the fall of civilizations. Yet if one (anyone) has grasped this plain and elementary relationship, then the origin and the relative changes

in the magnitudes of both cultures can no longer be interpreted as a *natural* process. The explanation, familiar from biology, of a natural, self-regulated equilibration process—of spontaneously growing parasites, a weakening of the host, a consequent shrinking number of parasites, and finally the host's recovery, etc.—cannot be applied to a situation where host and/or parasite are consciously aware of their respective roles as well as the relationship between them and are capable of choosing between these roles. A comprehended social evolution is no longer natural, but rational. So long as only the members of the parasitic culture understand the nature of the relationship, instead of a natural up and down of both cultures a planned, steady growth of parasitism will ensue. The members of the parasitic subculture do not vacillate between first faring absolutely better and then absolutely worse. Rather, because of their insight into the relationship between the culture of appropriation and that of expropriation they can act in such a way—by *not* expanding their practices spontaneously, but instead consciously restraining themselves—that their own absolute wealth will always grow (or at least will never fall). On the other hand, to the extent that the members of the basic culture understand the nature of the relationship between both cultures, not only the absolute wealth of the subculture will be threatened but its sheer existence will be endangered. For the members of a parasitic subculture always represent only a minority of the whole group. One hundred parasites can lead a comfortable life on the products of one thousand hosts. Yet one thousand parasites cannot live off of one hundred hosts. If, however, the members of the productive culture of appropriation always represent a majority of the population, then in the long run the greater physical strength is on their side as well. They can always physically defeat and destroy the parasites, and the continued existence of a subculture of appropriation is then *not* explained by its greater physical-military power, but rather depends exclusively on the power of *ideas*. Government and state must find ideological support which reaches far into the exploited population. Without such support from the members of the basic culture, even the most brutal and seemingly invincible government immediately collapses (as most recently illustrated dramatically by the fall the Soviet Union and the communist governments of Eastern Europe).

The changes in the relative magnitude of the basic culture and the parasitic subculture that explain the rise and fall of

civilizations are in turn explained by *ideological* changes. They do not occur spontaneously but are the result of conscious ideas and their dissemination. In a society in which a majority of the basic culture comprehends that each act of appropriation, production, and exchange enhances the welfare of all other market participants, and that each act of expropriation, taxation or trade restriction instead, regardless against whom it is directed, lowers the welfare of all others, the parasitic culture of government and state will continuously die off and a rise of civilization will ensue. On the other hand, in a society, in which the majority of the basic culture does not understand the nature and relationship between basic and subculture, the parasitic expropriation culture will grow and with this a decline of civilization will ensue.[57]

Hayek, who wants to ban ideas and rationality from the explanation of history, must deny all this. Yet in proposing his own theory of unconscious cultural group selection, he too affirms the existence and effectiveness of ideas, and he too acknowledges—whether he is aware of this or not—that the course of social evolution is determined by ideas and their adoption. Hayek produces ideas and wants to influence the course of human history through ideas, too. However, Hayek's ideas are false; and their proliferation would lead to the eclipse of Western civilization.

Conclusion

Friedrich Hayek is today acclaimed as one of the most important theoreticians of the market economy and of classical liberalism. Far more than his earlier work in the field of economic theory, his later writings on political philosophy and social theory have contributed to his fame. It is these later writings that currently support and feed an extended, international Hayek dissertation industry.

The preceding investigations demonstrate that Hayek's excursions into the field of political and social theory must be considered a complete failure. Hayek begins with a self-contradictory proposition and ends in absurdity: He denies the existence of human rationality or at least the possibility of recognizing all indirect causes and consequences of human action. He claims that the course of social evolution and the rise and fall of civilizations is incomprehensible, and that no one knows the direction of progress (only to explain progress then as the result of some unconscious process of cultural group

selection). He claims that no universally valid ethical standards exist, and that it is impossible to make an unambiguous moral distinction between an attack and a defense or between a peaceful refusal of exchange and a physically coerced exchange. And lastly, he claims that government—whose causes and consequences allegedly are as incomprehensible as those of the market—should take on (financed by taxes) all those tasks which the market does not provide (which anywhere outside of the Garden of Eden amounts to an infinite number of tasks).

Our investigations support the suspicion that Hayek's fame has little to do with his importance as a social theorist, but rather with the fact that his theory poses no threat whatsoever to the currently dominating statist ideology of social democracy, and that a theory which is marked by contradiction, confusion and vagueness provides an unlimited reservoir for hermeneutical endeavors.

He who searches for a champion of the market economy and of liberalism must look elsewhere. But he must look no farther than to Hayek's teacher and mentor: the great and unsurpassed Ludwig von Mises.

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[1] The following essay does *not* consider Hayek's achievements as an economist. As regards these, Hayek deserves great praise. But Hayek's economics is largely the one he adopted from his teacher and mentor Ludwig von Mises and thus is not original with him. What makes Hayek unique, and what fundamentally distinguishes him from Mises, is his political and social philosophy. It is this part of his work, not his contribution to economic theory, that has made Hayek famous. Unfortunately, as will be demonstrated in the following, this *original* part of Hayek's work is entirely false, however.

[2] See on the following in particular the *Constitution of Liberty* (Chicago: University of Chicago Press, 1960), chap. 15 and part 3; *Law, Legislation, and Liberty* 3 vols. (Chicago: University of Chicago Press, 1973–79), chap. 14.

[3] *Law, Legislation, and Liberty*, 3, p. 41. Compare this to John Maynard Keynes's statement: "The most important Agenda of the state relate not to those activities which private

individuals are already fulfilling but to those functions which fall outside the sphere of individuals, to those decisions which are made by *no one* if the state does not make them. The important thing for government is not to do things which individuals are doing already and to do them a little better or a little worse: but to do those things which are not done at all" (*The End of Laissez Faire* (vol. 9), *Collected Writings* [London: MacMillan, 1973], p. 291).

[4] *Law, Legislation, and Liberty*, 3, p. 44.

[5] Ibid., p. 55.

[6] Ibid., p. 59.

[7] Ibid., p. 62.

[8] Ibid., pp. 62–63.

[9] Ibid., p. 53.

[10] F. A. Hayek, *Denationalization of Money: The Argument Refined* (London: Institute of Economic Affairs, 1990).

[11] *Constitution of Liberty*, p. 286.

[12] Ibid., p. 346.

[13] Ibid., p. 351. What about Hayek's repeated pronouncements, *qua* economist, that all interpersonal comparisons of utility are scientifically invalid?

[14] Ibid., p. 375.

[15] Ibid., p. 222.

[16] Ibid., p. 143.

[17] See on the following Ronald Hamowy, "Freedom and the Rule of Law in F. A. Hayek," *Il Politico* (1970–71); idem, "Hayek's Concept of Freedom: A Critique," *New Individualist Review* (April, 1961); idem, "Law and the Liberal Society: F. A. Hayek's Constitution of Liberty," *Journal of Libertarian Studies* 2 (Winter 1978); Murray N. Rothbard, "F. A. Hayek and the Concept of Coercion," in: idem, *The Ethics of Liberty* (Atlantic Highlands: Humanities Press, 1981).

[18] *Constitution of Liberty*, pp. 20–21.

[19] Ibid., p. 133.

[20] *Law, Legislation, and Liberty*, 1, pp. 55–56.

[21] *Constitution of Liberty*, p. 135.

[22] Ibid., p. 137.

[23] Ibid., p. 135.

[24] Ibid., p. 136.

[25] See also Murray N. Rothbard, *Power and Market* (Kansas City: Sheed Andrews & McMeel, 1977), pp. 228–34; Hans-Hermann Hoppe, "Von der Strafunwürdigkeit unterlassener Hilfeleistung," in: idem, *Eigentum, Anarchie und Staat* (Opladen:

Westdeutscher Verlag, 1977); idem, "On the Indefensibility of Welfare Rights," *Austrian Economics Newsletter* 3 (1989).

[26] *Constitution of Liberty*, p. 21; also p. 141 f.

[27] The documentation of this parenthetical thesis will be kept to a minimum and relegated to footnotes.

On the fundamental difference between Menger and Mises on the one hand and Hayek on the other see Joseph T. Salerno, "Ludwig von Mises as Social Rationalist," *Review of Austrian Economics* 4 (1990): 26–54; Jeffrey M. Herbener, "Ludwig von Mises and the Austrian School of Economics," *Review of Austrian Economics* 5, no. 2 (1991): 33–50; Murray N. Rothbard, "The Present State of Austrian Economics" (Auburn Ala.: Ludwig von Mises Institute Working Paper, 1992).

[28] F. A. Hayek, *The Fatal Conceit: The Errors of Socialism*, W. W. Bartley III, ed. (Chicago: University of Chicago Press, 1988), p. 20.

[29] Ibid., p. 74.

[30] *Law, Legislation, and Liberty*, 3, p. 169.

[31] *Fatal Conceit*, p. 33; see also the *Constitution of Liberty*, p. 140.

[32] *Fatal Conceit*, p. 34.

[33] Ibid., p. 35.

[34] Ibid., p. 36.

[35] Ibid.

[36] See Ronald Coase, *The Firm, the Market, and the Law* (Chicago: University of Chicago Press, 1988); Harold Demsetz, *Ownership, Control, and the Firm* (Oxford: Blackwell, 1988); for a critique see Walter Block, "Coase and Demsetz on Private Property Rights," *Journal of Libertarian Studies* 1, no. 2 (Spring 1977).

[37] F. A. Hayek, *New Studies in Philosophy, Politics, Economics and the History of Ideas* (Chicago: University of Chicago Press, 1978), p. 9.

[38] *Law, Legislation, and Liberty*, 2, p. 5.

[39] *Law, Legislation, and Liberty*, 3, p. 155.

[40] Ibid., p. 163.

[41] Ibid., p. 164.

[42] *Fatal Conceit*, p. 6.

[43] Ibid., p. 10.

[44] Ibid., p. 21.

[45] See on the following also David Ramsey Steele, "Hayek's Theory of Cultural Group Selection," *Journal of Libertarian Studies* 8, no. 2 (1987).

[46] See *The Fatal Conceit*, p. 25.

[47] See Ludwig von Mises, *Human Action. A Treatise on Economics* (Chicago: Henry Regnery, 1966), chap. 8.

"If and as far as labor under the division of labor is more productive than isolated labor, and if and as far as man is able to realize this fact, human action itself tends toward cooperation and association; man becomes a social being not in sacrificing his own concerns for the sake of a mythical Moloch, society, but in aiming at an improvement in his own welfare. Experience teaches that this condition—higher productivity achieved under the division of labor—is present because its cause—the inborn inequality of men and the inequality in the geographical distribution of the natural factors of production—is real. Thus we are in a position to comprehend the course of social evolution" (ibid, p. 160–61). "Liberalism . . . regards all social cooperation as an emanation of rationally recognized utility" (Ludwig von Mises, *Socialism* [Indianapolis, Ind.: Liberty Fund, 1981], p. 418).

Hayek *rejects* this explanation. According to him, to regard as Mises does "all social cooperation as an emanation of rationally recognized utility . . . is wrong. The extreme rationalism of this passage . . . seems to me factually mistaken. It certainly was not rational insight into its general benefits that led to the spreading of the market economy" ("Foreword" to *Socialism*, ibid, p. xxiii). One is wondering how else to explain the phenomenon, but Hayek does not say—except through reference to "spontaneous evolution." Still more wondrous must appear the fact that there existed no human society whatsoever that had no private property and no exchange at all. (Hayek's "primordial bands" [*Law, Legislation, and Liberty*, 3, Epilogue; *Fatal Conceit*, chap. 1] are a myth, similar to the Morgan-Engels myth of primitive communism, for which not a shred of anthropological evidence exists. And the transition from the face-to-face society to the anonymous, faceless economy was not at all a traumatic event which required fundamentally different motives and habits. The world market is nothing else but the sum of all interpersonal transactions and as such not much more difficult to grasp than a simple bilateral exchange of goods.)

Instead, Hayek then engages in an outright falsification when, despite all historical records to the contrary, he appoints Mises to the position of a somewhat less than fully evolved predecessor of his own (Hayek's) theory. "It seems to me that the thrust of Mises's teaching is to show that we have *not* adopted freedom because we understood what benefits it would bring:

that we have *not* designed, and certainly were not intelligent enough to design, the order which we now have learned partly to understand long after we had plenty of opportunity to see how it worked. . . . It is greatly to Mises's credit that he largely emancipated himself from that rationalist-constructivist starting point, but that task is still to be completed" (ibid, p. xxiii–xxiv). In fact, Mises never said anything even remotely similar to what Hayek insinuates; and if credit must be given where it is due, Mises must be credited not for having himself emancipated from his rationalism but for never having abandoned it.

[48] See Carl Menger, *Principles of Economics* (New York: New York University Press, 1976), chap. 8; Ludwig von Mises, *Theory of Money and Credit* (Irvington-on-Hudson, N.Y.: Foundation for Economic Education, 1971), chap. 1.

[49] F. A. Hayek, *Studies in Philosophy, Politics, and Economics* (Chicago: University of Chicago Press, 1967), chap. 6.

[50] Thus Hayek writes that is "perverted rationalism . . . which interpreted the law of nature as the deductive constructions of 'natural reason.'" Law instead is "the undesigned outcome of growth" (ibid., p. 101).

[51] Ibid., p. 97.

[52] At this point, one may want to compare Hayek to his alleged predecessor Carl Menger. For Hayek law is 'the undesigned outcome of growth'. "Our values and institutions are determined not simply by preceding causes but as part of a process of unconscious self-organization of a structure or pattern" (*Fatal Conceit*, p. 9).

In sharp contrast, Carl Menger considers all references in social science explanations to Hayekian categories such as "natural growth," "spontaneous evolution," "primordial nature" or "unconscious self-organization" as sheer mysticism. To *explain* a social phenomenon through forces such as these is not to explain anything at all—a scientific imposture: "The origin of a phenomenon is by no means explained by the assertion that it *was present from the very beginning* or that it *developed originally*. . . . a social phenomenon, at least in its most original form, must clearly have developed from individual factors. The [organicist, Hayekian] view here referred to is merely an analogy between the development of social institutions and that of natural organisms which is completely worthless for the purpose of solving our problem. It states, to be sure, that institutions are unintended creations of the human mind, but not *how* they came about. These attempts at interpretation are comparable to the

procedure of a natural scientist who thinks he is solving the problem of the origin of natural organisms by alluding to their 'originality,' 'natural growth,' or their 'primeval nature' . . . . attempts to interpret the *changes* of social phenomena as 'organic processes' are no less inadmissible than . . . theories which aim to solve 'organically' the problem of the *origin* of unintentionally created social structures. There is hardly any need to remark that the changes of social phenomena cannot be interpreted in a social-pragmatic way, insofar as they are not the intended result of the agreement of members of society or of positive legislation, but are the unintended product of social development. But it is just as obvious that not even the slightest insight into the nature and the laws of the movement of social phenomena can be gained either by the mere allusion to the 'organic' or the 'primeval' character of the processes under discussion, nor even by mere analogies between these and the transformations to be observed in natural organisms. The worthlessness of the above orientation of research is so clear that we do not care to add anything to what we have already said" (Carl Menger, *Investigations into the Method of the Social Sciences with Special Reference to Economics* [New York: New York University Press, 1985], pp. 149–50).

[53] Since Hayek essentially denies the existence (or the importance) of ideas in the course of social evolution, he also (at least in his later writings) gives no mention to public opinion.

In distinct contrast, David Hume, whom Hayek himself claims as his precursor, attaches fundamental importance to ideas and public opinion. "Nothing appears more surprising to those who consider human affairs with a philosophical eye, than the easiness with which the many are governed by the few, and the implicit submission, with which men resign their own sentiments and passions to those of their rulers. When we inquire by what means this wonder is effected we shall find, that as Force is always on the side of the governed, the governors have nothing to support them but opinion. It is, therefore, on opinion only that government is founded, and this maxim extends to the most despotic and most military governments, as well as to the most free and most popular. The soldan of Egypt, or the emperor of Rome, might drive his harmless subjects, like brute beasts, against their sentiments and inclination. But he must, at least, have led his mamalukes or praetorian bands, like men, by their opinion" (David Hume, *Essays. Moral, Political and Literary* [Oxford: University of Oxford Press, 1971], p. 19).

See also E. de La Boetie, *The Politics of Obedience: The Discourse of Voluntary Servitude*, edited and with an introduction by Murray N. Rothbard (New York: Free Life Editions, 1975); and below, p. 911f.

[54] *Hayek, Law, Legislation, and Liberty*, 3, pp. 154, 156.

As David Ramsey Steele correctly notes ("Hayek's Theory of Cultural Group Selection," p. 179), "if cultural group selection is to be relied upon, human culture would evolve much more slowly than human biology. For the selection of groups is a slower process than the selection of individuals, and group selection according to culture cannot be expected to proceed any faster than group selection according to genes."

[55] Besides, this form of extinction also does not fit Hayek's explanatory scheme, for a person or group that would forego all appropriation, production, etc., would die out on account of its own stupidity, not in the course of cultural group selection.

[56] Although Hayek notices some obvious differences between biological and cultural evolution (*Fatal Conceit*, p. 25), he does not recognize the categorical difference between social *cooperation* and biological *competition*. Rather, he writes that biological and cultural evolution "both rely on the same principle of selection: survival or reproductive advantage. Variation, adaptation and competition are essentially the same kind of process, however different their particular mechanism, particularly those pertaining to propagation. Not only does all evolution rest on competition; continuing competition is necessary even to preserve existing achievements" (ibid, p. 26).

In contrast, Ludwig von Mises sharply distinguishes between cooperation and competition. He writes: "Society is concerted action, cooperation. Society is the outcome of conscious and purposeful behavior. This does not mean that individuals have concluded contracts by virtue of which they have founded human society. The actions which have brought about social cooperation and daily bring it about anew do not aim at anything else than cooperation and coadjuvancy with others for the attainment of definite singular ends. The total complex of the mutual relations created by such concerted actions is called society. It substitutes collaboration for the—at least conceivable—isolated life of individuals. Society is division of labor and combination of labor. In his capacity as an acting animal man becomes a social animal" (*Human Action*, p. 143). "What makes friendly relations between human beings possible is the higher productivity of the division of labor. It removes the natural

conflict of interests. For where there is division of labor, there is no longer question of the distribution of a supply not capable of enlargement. Thanks to the higher productivity of labor performed under the division of tasks, the supply of goods multiplies. A pre-eminent common interest, the preservation and further intensification of social cooperation, becomes paramount and obliterates all essential collisions. Catallactic competition is substituted for biological competition. It makes for harmony of the interests of all members of society. The very condition from which the irreconcilable conflicts of biological competition arise —viz., the fact that all people by and large strive after the same things—is transformed into a factor making for harmony of interests. Because many people or even all people want bread, clothes, shoes, and cars, large-scale production of these goods becomes feasible and reduces the costs of production to such an extent that they are accessible at low prices. The fact that my fellow man wants to acquire shoes as I do, does not make it harder for me to get shoes, but easier" (ibid, p. 673).

[57] Writes Mises: "History is a struggle between two principles, the peaceful principle, which advances the development of trade, and the militarist-imperialist principle, which interprets human society not as a friendly division of labor but as the forcible repression of some of its members by others. The imperialist principle continually regains the upper hand. The liberal principle cannot maintain itself against it until the inclination for peaceful labor inherent in the masses shall have struggled through to full recognition of its own importance as a principle of social evolution" (*Socialism*, p. 268). "Liberalism is rationalistic. It maintains that it is possible to convince the immense majority that peaceful cooperation within the framework of society better serves the rightly understood interests than mutual battling and social disintegration. It has full confidence in man's reason. It may be that this optimism is unfounded and that the liberals have erred. But then there is no hope left for mankind's future" (idem, *Human Action*, p. 157). "The body of economic knowledge is an essential element in the structure of human civilization; it is the foundation upon which modern industrialism and all the moral, intellectual, technological, and therapeutical achievements of the last centuries have been built. It rests with men whether they will make proper use of the rich treasure with which this knowledge provides them or whether they will leave it unused. But if they fail to take the best advantage of it and disregard its teachings

and warnings, they will not annul economics; they will stamp out society and the human race" (ibid, p. 885).

The Philosophical Contributions of Ludwig von Mises

David Gordon

A central theme unites Ludwig von Mises's frequent ventures into philosophy. Mises believed that economics as he practiced it gave access to "a third class of the laws of nature."[1] The method of economics differed fundamentally from that of physics and biology, the sources of the other classes of natural law. A sound theory of knowledge thus must place proper stress on deductive inquiry into human action, the method of economics. The place of economics in ethical theory is less direct; but here too, the results of economic analysis closely circumscribe the available options in value theory.

In sum, Mises wrote philosophy as an economist. Unlike his great rival John Maynard Keynes, who held philosophical opinions that molded his economic views, for Mises the direction of causation went in the opposite way: economics determined philosophy.[2] I shall endeavor to illustrate Mises's distinctive angle on philosophical questions, concentrating principally on the theory of knowledge and ethics.

The guiding thread in Mises's theory of knowledge was the defense of economics. His discipline needed to be guarded against metaphysical assault and scientific attempts to eliminate the category of human action. In Mises's opinion metaphysical arguments cannot be used to challenge economics, since human beings cannot attain the ultimate truth that metaphysicians seek. "It is beyond the pale of a rational inquiry to enter into an analysis of any variety of metaphysics, to appraise its value or its tenability and to affirm or to reject it."[3] Thus all-embracing schemes, e.g., Hegel's depiction of the growth of the Absolute Idea to full self-consciousness, cannot rightly be used to challenge economics. To claim, with Werner Sombart, that economics rests on a "method of isolation" which correct philosophy has exposed as fallacious is illegitimate.[4] Economics, not metaphysics, sits in the driver's seat.

But why? How does Mises know that metaphysical inquiry is

sterile? His argument is the following: In order to survive, human beings identify regularities in the world. Unless one can anticipate that objects will behave in a fixed manner, action is impossible. One can do nothing if the world is, in William James's phrase, "a booming, buzzing confusion." The assumption that objects operate in a regular order, however, cannot be proved. "There is no deductive demonstration possible of the principle of causality and of the ampliative inferences of perfect induction; there is only recourse to the no less indemonstrable statement that there is a strict regularity in the conjunction of all natural phenomena."[5]

The assumption of regularity is not the only principle human beings use to categorize the world, but all other principles depend on it. Thus, if it cannot be proved that the world really is regular, none of the other categories can be deductively derived. From the fact that human beings must think about the world in a certain way, it does not follow that the world really has the attributes we ascribe to it. "In epistemology . . . we are dealing neither with eternity nor with conditions in parts of the universe from which no sign reaches our orbit nor with what may possibly happen in future aeons."[6] It is this limitation of our thought that closes our access to truth about metaphysics.

Like Immanuel Kant, then, Mises thought that the human mind grasped the world only through its own categories. But this similarity hardly suffices to make Mises a strict Kantian. Unlike his great predecessor, Mises did not claim that a particular set of categories is a necessary presupposition of experience. To Mises, the categories are ones that human beings now in fact use. He essays no transcendental argument in the style of the *Critique of Pure Reason* to derive them.[7] Indeed, as we have seen, he specifically denies that the causal principle can be demonstrated.

Instead of a logical derivation of the categories, Mises offers an evolutionary "just so" story. Human beings who did not use the assumption of regularity would be unable to survive. Their more fortunate relatives who did use this category would by comparison flourish. Through a process analogous to biological selection, a set of common categories gradually became entrenched in the human mind.[8]

At first sight, one might be inclined to object to Mises's evolutionary argument in this way: If people who use the regularity principle survive, while these who do not do so perish, what is the explanation of this fact? Does it not show that the regularity principle is true? If so, how can Mises assert that the

principle cannot be proved?

But this objection fails: Mises is entirely right. From the fact that using a principle aids survival, it does not follow that the principle accurately characterizes reality. We do however know that the world has *this* property: those in it who use the principle have an advantage over nonusers. Perhaps the best explanation of the success of our categories is that they accurately describe the world, but this is very far from a proof that they do.[9] Further, as Mises well knew, the entire evolutionary scheme is speculative.[10]

In spite of Mises's claim that the principle of regularity cannot be proved, he places great stress on it. The "strict regularity" that he finds in all natural phenomena leads him to reject indeterminism in quantum mechanics. The Heisenberg uncertainty principle limits our knowledge: it does not show that the law of causality is false for subatomic particles.[11]

Mises's position appears vulnerable. He thinks that the principle of regularity is an essential category of the human mind; we *must* think in accord with it. But if this is right, should we not consider indeterminacy in nature unthinkable? Even if Mises is right to reject real uncertainty in nature, how does he account for the fact that the opinion he opposes can be genuinely considered? On his view it is absurd on its face. He might respond that, after all, quantum mechanics *is* very counter-intuitive. The paradoxes we encounter in this field illustrate Mises's contention that our categories of thought apply only to the world we know.

But what has all this to do with economics? Mises's account of regularity in nature sets the stage for a contrast. The study of human action does not proceed by inductive generalization from perceived regularities. Instead, its method is deductive and its starting point the concept of action. Through an analysis of this concept, the principles of economics can be deduced. "Action and reason are congeneric and homogeneous; they may even be called two different aspects of the same thing."[12]

Can Mises maintain consistently his contrast between the study of human action and the sciences of natural phenomena? Human beings are part of the natural world: why then do they stand immune from the principle of regularity? Mises believes that "determinism is the epistemological basis of the human search for knowledge."[13] If he is right, has he not undermined his fundamental philosophical goal—the defense of Austrian economics?

Mises's response provides a key to understanding his thought. Determinism *does* apply to human beings: "What a man does at any instant of his life is entirely dependent on his past, that is, on his physiological inheritance as well as of all he went through in his previous days."[14] But we do not know how human thought and action are determined by these factors. Determinism is thus of no use in the study of human action. Instead, we must assume that the mind operates autonomously. To claim this is not to assert that the mind really is independent of the physical world: this contradicts what Mises takes to be a basic assumption of science.

Instead, "[m]ethodological dualism refrains from any proposition concerning essences and metaphysical constructs. It merely takes into account the fact that we do not know how external events . . . affect human thoughts, ideas, and judgments of value."[15] Mises's vindication of praxeology, then, is this: In spite of the principle of regularity, we do not know how human thought is determined. Theories that assign particular causes to thought thus are metaphysical, not scientific, and must be rejected. Two features of this argument require stress. First, in line with his wish to defend economics rather than support a philosophy of his own, Mises assumes as little as possible. He does not assert that human beings are metaphysically free: he contents himself with the claim that in economics they must be treated as rational actors. More questionably, he manifests a strong hostility to metaphysics.

Mises's view of human action provides additional evidence that he is not a strict Kantian. As we have just seen, Mises's position is that human beings must be treated as rational actors, since we do not know how action is determined. Kant's was in part the reverse. He thought that the real or noumenal self is not determined. It is not that we have no access to the laws that determine human action, as Mises believes: we really are free.[16] In the world as we know it, i.e., the phenomenal world, the situation is otherwise. Human action is determined by the desire for happiness.[17]

In this latter view, Kant and Mises are quite close. Mises likewise assumes that "[h]appiness . . . is the only ultimate end."[18] We always aim to achieve the highest ranked of our preferences that we think attainable. Mises does not assume that we can freely choose our preferences: freedom, as he conceives it, is the use of reason to achieve our goals. But this similarity, to my mind, is not sufficient to place Mises in the Kantian camp.

[19]

In the theory of knowledge, then, Mises is satisfied with a very modest conclusion: neither physical science nor metaphysics pose a challenge to economics. The limited nature of Mises's claim, however, failed to secure him immunity from attack. The logical positivists (the "Vienna Circle") advanced views that, if accepted, placed praxeology in peril. Mises regarded it as a vital task to reply to positivism, and I think his efforts in this area constitute his most valuable contribution to the theory of knowledge.

The clash of the positivists with praxeology resulted from their theory of meaning.[20] Briefly put, they held that deduction cannot give us any knowledge about the empirical world. All necessary truths are analytic; they are tautologies that are empirically meaningless. Since praxeology proceeds by deduction from a necessarily true axiom, the threat posed by positivism is apparent. Economics is supposed to apply to the world: it is not "an unearthly ghostdance of bloodless categories." If the method it uses must fail of its purpose, Misesian economics is ruined.

Mises's most important argument against the positivists was a simple one. They purport to banish metaphysics and follow science, but their own position is metaphysical. "[T]he epistemology of positivism is itself based on a definite brand of metaphysics."[21] If positivists accurately took note of praxeology, they would be forced to abandon their views. Praxeology is a deductive discipline that, contrary to positivist dogma, does give us knowledge of the real world. To declare illegitimate an existing science because it violates a philosophical doctrine is itself illegitimate: Metaphysics cannot overturn science.

The force of Mises's point is twofold. First, he himself agrees with the positivists that philosophy is subordinate to science. When he claims that a philosophic doctrine cannot overturn a conclusion of science, he speaks on his own behalf. But, more fundamentally, his argument works against the positivists even if one disagrees with Mises's view about the relation of science to philosophy. The positivists do agree with him here: his argument is thus an effective *ad hominem* retort against them. They, the opponents of metaphysics, are themselves engaged in metaphysics if they reject praxeology.[22]

Mises uses the same response to Karl Popper's falsifiability criterion. Popper, unlike the positivists, did not take all

metaphysical statements to be meaningless. He instead adopted the more limited position that all scientific statements must be capable of being proved false. The theorems of praxeology, insofar as they are deductively derived from a self-evident axiom, fail this test: nothing can falsify them.

Mises's reply is characteristically forthright. If Popper wishes to classify praxeology as unscientific, that is his affair. The proper tests of praxeology are the truth of its axioms and the validity of its arguments. Why should it matter whether praxeology meets the criterion of science proposed by a particular writer? Why does it count against a statement that it is metaphysical in Popper's sense?

Here once more Mises uses an *ad hominem* argument. Like the positivists, Popper contended that definitions do not describe real essences: they are arbitrary proposals for the use of a term. [23] Mises cleverly uses this view against Popper to show that his own characterization of scientific statements is an arbitrary proposal.

Mises has another argument that uses positivist doctrine against itself. "[T]he proposition that there are no synthetic *a priori* propositions is itself a . . . synthetic *a priori* proposition, for it can manifestly not be established by experience."[24] A positivist might deny this and assert that the claim was an inductive generalization. But then what justifies him in rejecting standard examples of a priori propositions, e.g., "whatever is colored is extended," not to mention the theorems of praxeology? Alternatively, a positivist might claim that the disputed statement is analytic, but it is unclear what would ground this assertion.

Mises does not confine his criticism to refutations of the kind just described. He directly examines the main contentions of the logical positivists and finds them wanting. The positivists claim that the propositions of mathematics and logic are tautologies. But even if this is true, we can learn something new from mathematical or logical investigation.[25] Even if all the theorems of geometry are restatements of the axioms used in their proofs, it does not follow that we can at once grasp the theorems when we learn the axioms. The distinction Mises draws here resemble Aquinas's separation of propositions "self-evident in themselves" from those "self-evident to us."[26]

Mises's criticism of the positivists seem eminently well taken; but even if one adheres to that philosophy, Mises has the resources to protect praxeology. He calls the propositions of

economics synthetic *a priori* truths, but it is not at all clear that he has in mind what the positivists wish to exclude. What does Mises mean by a "synthetic" proposition? As discussed above, he replies to the claim that mathematical propositions are tautologies with the point that we can learn something new from some tautologies. Does he mean by a synthetic proposition, then, one that gives us new knowledge? If he does, his position is perfectly consistent with that of his positivist foes. They are concerned to exclude propositions that, in their sense of the terms, are both necessary and non-analytic. So far as I can determine, Mises did not take a position on this issue; he neither asserts nor denies, e.g., that the predicate of the action axiom is "contained" in the subject. He offers no formal account of synthetic propositions, however, so the suggestion that praxeology is immune from positivist attack in this way is conjectural.

Even if this suggestion is rejected, much of praxeology is still under no threat from the positivists. Although "[a]ll the concepts and theorems of praxeology are implied in the concept of human action," its inquiries are restricted "to the study of acting under those conditions and presuppositions which are given in reality."[27] To accomplish this, subsidiary postulates must be added to the axiom of action, e.g., the assumption that labor has negative utility. But "[t]he disutility of labor is not of a categorical and aprioristic character. We can without contradiction think of a world in which labor does not cause uneasiness, and we can depict the state of affairs prevailing in such a world."[28]

If praxeology includes empirical propositions, why would positivists object to it? They do not reject the use of logic in science: they instead think that logic by itself will not provide us with knowledge of the empirical world. But "[e]conomics does not follow the procedure of logic and mathematics. It does not present an integrated system of pure *aprioristic* ratiocination severed from any reference to reality."[29] The only theorems of praxeology, then, that conflict with positivism are those that do not include any empirical propositions in their derivation. Mises has powerfully argued that logical positivism should not be accepted; and, by extending points that Mises makes, we can show that praxeology is in little danger from it.

Of course economists influenced by positivism have followed methods of inquiry radically at variance with Mises's precepts. Many of them place great reliance on empirical testing, while

Mises thinks this unnecessary and in many cases not possible. Milton Friedman goes so far as to say that the assumptions of an economic theory may be false, as long as the theory generates correct predictions. A greater divergence from Mises would be difficult to imagine. But none of these views follows from the verifiability criterion of meaning. A positivist sympathetic to praxeology might take the axiom of action to be a common sense empirical proposition, known by introspection to be true.[30]

One further point requires mention. If praxeology is consistent with positivism, does this invalidate one of Mises's key arguments against the positivists? The very existence of praxeology, he claims, refutes their view of science. But if praxeology is consistent with positivism, must not this argument be withdrawn? As usual, Mises is on safe ground: all that is required is a modification of it. Mises can pose this dilemma to positivist detractors: if praxeology contradicts their views, its existence as a science refutes them; if it does not, they cannot object to it. And in any case, Mises still has intact all his other arguments against the positivists.

Mises's primary aim in epistemology, I have endeavored to show, was to defend economics. "With regard to praxeology the errors of the philosophers are due to their complete ignorance of economics and very often to their shockingly insufficient knowledge of history."[31] In ethics, his main goal was similar but not identical. In his view, economics does not by itself support any ethical conclusions. But if one acknowledges a value judgment that he thinks almost universally acceptable, the establishment of a free market is imperative. Mises recognized that various schools of ethics had objections to the free market, and his aim in this branch of philosophy was to defend the market from attack. His method was a radical one: he denied the possibility of objective ethics altogether. If Mises is correct, all ethical objections to the free market immediately fail.

In Mises's view, it makes sense to ask: given a certain end, how can that end be best achieved? If someone wishes to build a house, the question of how he can best use his resources to do so admits of an objective response. Whether to build the house is up to him; how best to do so is not. Rationality is a matter of means, not ends. The matter is, however, somewhat complicated by the fact that an end can itself be a means to a further end.[32] Mises in fact holds that "[h]appiness in the purely formal sense in which ethical theory applies the term is the only ultimate end." Mises meant by this that we want things not for their own sake

but for the satisfaction, assessed purely subjectively, which we expect them to bring us.

Mises's notion of values stands in opposition to two competing types of theory, and he explicitly opposed both. Some philosophers maintain that there are objective goods or ends "out there in the world." Regardless of what people think, certain things just are good or bad. Franz Brentano, a leading advocate of this position, maintained that value judgments were "correct" or "incorrect," analogously to the truth or falsity of factual propositions. Mises rejected Bretano's account; unfortunately he did not discuss Bretano's arguments.[33] Against aesthetic objectivism Mises is scathing: "Only stilted pedants can conceive the idea that there are absolute norms to tell what is beautiful and what is not."[34]

Some proponents of objective ethics agree with Mises that values are not properties that objects possess. Nevertheless, ethics is not subjective, since reason can show that we stand under certain obligations, regardless of the ends we happen to have. Mises has little time for this position. He says of its foremost proponent: the "weakest part of Kant's system is his ethics."[35]

By dismissing objective ethics, Mises has prepared the way for his own defense of the free market. Mises's primary concern to vindicate economics suggests an additional motive for his subjectivist conception of values. Someone who believes in objective values in the style of G. E. Moore but also accepts Austrian economics needs to fit two different kinds of value into his intellectual system. By accepting only subjective values, a drastic intellectual simplification becomes possible; and Mises may have found the temptation to wield Occam's razor too strong to resist. More prosaically, as an economist Mises was thoroughly familiar with subjective values and may have found any other approach conceptually uncomfortable. This in part accounts for the fact that Mises says little to support his condemnation of objective values: he treats the issue as virtually self-evident.

Although Mises does not usually address in detail the arguments of value-objectivists, on one occasion he does so, with illuminating results.

The political philosopher Leo Strauss claimed that many terms in our language fuse descriptive and evaluative components. If, one calls someone cruel, the judgment rests on factual criteria. Stalin acted cruelly, e.g., in bringing about the

death of millions of Russian peasants. This judgment is not, to reiterate, a matter of subjective assessment; but is objective in exactly the same way as "Stalin was Lenin's successor." Yet to call someone cruel implies a negative evaluation of him. Thus, contrary to the value subjectivists, language imposes certain value judgments on us. To maintain that all values are subjective is to ignore for a large number of terms the criteria our language establishes.

Mises vigorously dissented. He considered three examples given by Strauss: "cruelty," "prostitute," and "pressure group."[36] In each instance, Mises maintained, one can either use the term in question in a value-neutral way or substitute another term that lacks the value-charged nature of the original. It is thus false that linguistic considerations prevent one from separating fact and value.

This is not the place for an assessment of the dispute. Rather, it is the existence of the dispute itself that merits notice. During the late 1950s and early 1960s one of the most important arguments in modern moral philosophy took place between Philippa Foot and Elizabeth Anscombe, on the one hand, and R. M. Hare, on the other. (All three were at the time teachers of philosophy at Oxford University). Foot and Anscombe adopted precisely the position of Strauss: there are criteria for the use of terms such as "rude" or "courageous." Once a term of this sort is applied, no separate act of evaluation is necessary: the terms are already valuational. Thus descriptive criteria imply an evaluative stance, and the "is-ought dichotomy" is at least in these instances false.

Hare demurred, in terms reminiscent of Mises: "But the primary evaluative words are so classified just because their descriptive meaning is secondary, and is therefore more able to give way when attitudes change, the evaluative meaning remaining unaltered."[37] Like Mises, Hare maintains that no description irrevocably commits us to an evaluation.

In both ethics and epistemology, then, Mises's contributions arise in the course of a defensive campaign on behalf of Austrian economics and the free market. If so, what lessons can be drawn about the way to study Mises's philosophy?

Most fundamentally, his philosophy must be approached through his own writings, taking particular note of the manner in which economic theory suggests to him philosophical positions. The greatest mistake one can make in this area, I venture to suggest, is to assign Mises to a philosophical school and to

interpret his economics on that basis. As an example of what must be avoided let us consider the ascription to Mises of a "Bergsonian" view of time. When Mises discusses time in economics, he has in mind time as experienced by human beings, particularly in action. It does not follow from this that Mises should be saddled with either Bergson's criticism of time in physical science as an abstraction or his defense of the intuitive grasp of real duration.

Mises cites Henri Bergson on just a few occasions, and his remarks hardly constitute a ringing endorsement of his views. He agrees with Bergson that for human beings the real present is grasped in action. But he also states: "it is not recollection that conveys to men the categories of change and of time, but the will to improve the conditions of his life."[38] This in context appears to be a criticism of Bergson.

Again, Mises notes: "it is true, as Bergson has seen with unsurpassed clarity, that between reality and the knowledge that science can convey to us there is an unbridgeable gulf. Science cannot grasp life directly . . . . But if one thinks one has thereby pronounced an unfavorable judgment on science, one is mistaken."[39] Mises's conclusion is totally un-Bergsonian. The exact similarities and differences between Mises and Bergson are not our present concern. I have touched on the topic simply for purposes of illustration. Some thinkers are best approached through the careful search for sources and influences. At least in philosophy, Mises is not among them.

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[1] Ludwig von Mises, *Human Action* (New Haven, Conn.: Yale University Press, 1963), p. 885.

[2] I have attempted to show the influence of Keynes's philosophical views on his economics in "Keynes's First Principles," *Dissent on Keynes*, Mark Skousen, ed. (New York: Praeger, 1992), pp. 149–60.

[3] Ludwig von Mises, *The Ultimate Foundation of Economic Science* (Princeton, N.J.: D. van Nostrand, 1962), p. vi.

[4] I consider the German historical school in greater detail in *The Philosophical Origins of Austrian Economics* (Auburn, Ala.: Ludwig von Mises Institute, 1993).

[5] Ludwig von Mises, *Theory and History* (New Haven: Yale University Press, 1957), p. 4.

[6] Mises, *Ultimate Foundation*, p. 15.

[7] For an excellent account of Kant's philosophy, see Paul Guyer, *Kant and the Claims of Knowledge* (Cambridge: Cambridge University Press, 1987). Admittedly, some "psychologistic" interpretations of Kant put him closer to Mises, but the similarity is no greater than that between Mises and, say, Herbert Spencer.

[8] Mises, *Ultimate Foundation*, p. 15.

[9] Peter Lipton, *Inference to the Best Explanation* (London: Routledge, 1991), pp. 172–73, discusses the best explanation argument for realism.

[10] Mises presents his evolutionary account as a "speculation." *Ultimate Foundation*, p. 15. In my view, evolutionary epistemology suffers from debilitating objections. For important criticisms, see Thomas Nagel, *The View from Nowhere* (Oxford: Oxford University Press, 1986) and Ralph Walker, *The Coherence Theory of Truth* (London: Routledge, 1989).

[11] For Mises's rejection of indeterminism in quantum mechanics, see *Theory and History*, pp. 88–89.

[12] Mises, *Human Action*, p. 39.

[13] Mises, *Theory and History*, p. 74.

[14] Ibid., p. 77.

[15] Ibid., p. 1.

[16] For an important analysis of Kant's conception of freedom, see "Reason and Autonomy in Grundlegung III" in Onora O'Neill, *Constructions of Reason* (Cambridge: Cambridge University Press, 1989), pp. 51–65.

[17] For the comparison of Mises and Kant, I am indebted to discussion with Ralph Raico.

[18] Mises, *Theory and History*, p. 13. In support of his view, Mises surprisingly cites Ludwig Feuerbach.

[19] The main reason is that in my view Kant does attribute strong free will to the noumenal self.

[20] For a full account of the logical positivists, see J. Alberto Coffa, *The Semantic Tradition from Kant to Carnap: To the Vienna Station* (Cambridge: Cambridge University Press, 1991).

[21] Mises, *Ultimate Foundation*, p. vi.

[22] For a discussion of *ad hominem* arguments in philosophy, see Henry W. Johnstone, Jr., *Validity and Rhetoric in Philosophical Argument* (University Park, Penn.: Dialogue Press, 1978), pp. 5–12.

[23] For Popper's "anti-essentialism" see Karl Popper, *The Open Society and Its Enemies*, 2 vols. (New York: Harper, 1967), pp. 9–21.

[24] Mises, *Ultimate Foundation*, p. 5.

[25] Mises, *Human Action*, p. 38.

[26] Aquinas uses this distinction in his criticism of St. Anselm's argument for the existence of God.

[27] Mises, *Human Action*, pp. 64–65.

[28] Ibid., p. 65; footnote number omitted.

[29] Ibid., p. 66.

[30] These remarks should not be taken as a defense of positivism. In my own view, the verifiability criterion ought to be rejected; further discussion is in my *Philosophical Origins*, pp. 36 ff. Rather, I am here addressing the question: if one did accept the verifiability criterion, how much of Austrian economics could be retained?

[31] Mises, *Human Action*, pp. 32–33; footnote number omitted.

[32] Mises, *Theory and History*, p. 13.

[33] Ibid., p. 36, n. 1. Brentano's views are presented in his *The Origin of Our Knowledge of Right and Wrong*, R. M. Chisholm and Elizabeth Schneewind, trans. (Atlantic Highlands, N.J.: Humanities Press, 1969). An interesting discussion of Brentano on value judgments may be found in Thomas L. Carson, *The Status of Morality* (Dordrecht: D. Reidel, 1984).

[34] Mises, *Theory and History*, p. 63.

[35] Ludwig von Mises, *Socialism* (London: Jonathan Cape, [1936] 1951), p. 430.

[36] Mises, *Theory and History*, pp. 299 ff. Strauss's argument is in his *Natural Right and History* (Chicago: University of Chicago Press, 1953), pp. 50 ff.

[37] R. M. Hare, "Reductio ad Absurdum of Descriptivism" in his *Essays in Ethical Theory* (Oxford: Clarendon Press, 1989), pp. 122. Philippa Foot's side of the argument is in her *Virtues and Vices* (Berkeley and Los Angeles: University of California Press, 1978). For Anscombe, see her "Modern Moral Philosophy" in *Collected Philosophical Papers* (Minneapolis: University of Minnesota Press, 1978), vol. 3, pp. 26–42.

[38] Mises, *Human Action*, p. 100. The passage criticizes Edmund Husserl as well as Bergson. I have not discussed the patently absurd claim that Mises was a phenomenologist.

[39] Ludwig von Mises, *Epistemological Problems of Economics* (New York: New York University Press, 1981), p. 46; footnote number omitted.

The Contributions of W. H. Hutt

John B. Egger

William Harold Hutt (1899–1988) was a courageous and independent maverick whose work has long been respected by those who work in the Austrian tradition. His scope was broad, encompassing the study of labor and the relationship between government and the economy, but he is probably best known for his monetary economics.

Those who know Hutt's scholarship are likely to consider it "underappreciated," either because his principal work was a criticism of Keynes published at the height of Keynes's influence (Hutt 1963) or specifically because its catallactic, individualistic method was hardly in keeping with the methodological spirit of the 1960s. It is also true, though, that Hutt's writings are difficult to follow and sometimes reflect a utilitarianism that is inconsistent with thoroughgoing subjectivism. Nonetheless, as I hope this survey will indicate, there is much in Hutt's work—particularly his monetary economics—that will delight anyone who is sympathetic to the approach of the Austrian school.

Born in 1899 to a working-class family in London (Seldon 1988), Hutt studied at the London School of Economics and taught from 1928 to 1965 at the University of Cape Town. He then moved to the United States and taught at several universities. From 1972 to 1982 he taught at the University of Dallas, and was an emeritus professor there at the time of his death (Ebeling 1988).[1]

Monetary and labor economics were Hutt's chief interests. His best-known work in monetary theory is *Keynesianism—Retrospect and Prospect* (1963); others in this field include *The Theory of Idle Resources* (1939, second edition 1977), *A Rehabilitation of Say's Law* (1974), and *The Keynesian Episode* (a 1979 revision of *Keynesianism*). His rich appreciation of the market as a catallaxy explains his most important contribution: a superior analysis, Austrian in spirit, of money and its relationship to economic activity. Like Marget, Hayek, Hazlitt, and others of his generation, much of Hutt's monetary work was understandably associated with criticism of Keynes.

Hutt's principal work in labor economics is *The Strike-Threat System* (1973), but his first book was *The Theory of Collective Bargaining* (1930, 1980).

Throughout his life Hutt expressed great concern—perhaps reflecting his background—for persons of lower incomes. Their best friend was the market, he told us often; their major enemy was private groups' use of government to plunder them, a concern that led him into extensive work on the political process. Contributions to this literature include *Economists and the Public* (1936)—which one of his scholars and recent colleagues identified as "probably, Hutt's finest work" (Formaini 1989, p. 2) [2] and *Politically Impossible. . .?* (1971). His long-time friend Arthur Seldon wrote: "If Hutt had not been dismayed and distracted by the cul-de-sac of Keynesianism, I think he would have complemented James M. Buchanan and Gordon Tullock and now others in the US and Europe who are developing the fundamental economics of politics, democracy, and bureaucracy."[3]

Professor Hutt[4] knew that his works were not easy to read. He saw that as a regrettable necessity.[5] He respected language and used it with great skill, understanding that it shapes and is shaped by ideas. Although Hutt is often criticized for his use of unique terminology ("Huttite" has been coined to describe it), it was precisely his respect for the power of language, combined with his disapproval of trends that swept economics during his career, that produced his strong sense of obligation to resist certain popular economic terminology. A repeated theme is one expressed in *Keynesianism*: "*There are some kinds of language the habitual use of which hinders the perception of certain things as well as the saying of them*" (Hutt 1963, p. ix; italics his). Hutt's terminology places demands on the reader, who must not only follow his new and curious—though usually somewhat self-explanatory—terms (like "contrived incidental plenitude") but must also exercise caution with conventional terms, for sometimes his meaning subtly differs from that of works that now constitute orthodoxy.

Freedom, Government, and the Market

Morgan Reynolds, in his fine "Tribute to W. H. Hutt," insightfully identified William Hutt as a "classical political economist" (Reynolds 1989, p. xii). Hutt himself wrote: "A contemporary trend towards a return of economic science to what could be

more appropriately described by the too long disused term ‘political economy,’ in which the function of vote-gathering is formally treated as an economic factor, may turn out to be one of the most promising developments of this age” (Hutt 1971, p. 23). From the catallactic perspective of Adam Smith and an underlying utilitarianism to his concern with matters of “public choice,” Reynolds’s term fits. Hutt knew that the individual initiative that liberates us from poverty thrives only under particular kinds of rules, and that these rules may only resemble the legislation that emerges from the political processes of a constitutional democracy. Hutt’s lifelong concern for human welfare led him to a study of those processes. He properly considered the likelihood that private groups might wrest control and twist legislation to their own advantage, to be the greatest threat to the human condition.

He wrote courageously about the apartheid policy of his adopted home country, identifying it as a device by which the white unions had seized upon the government as a means to suppress competition from the non-whites.[6] A related and highly regressive policy was “rate for the job” legislation (like our “comparable worth”). Hutt fervently argued that outlawing the ability of the unskilled and inexperienced—or those discriminated against—to acquire the benefits of employment and demonstrate their worth by underbidding other applicants was terribly regressive, unfair, and anti-competitive.

For all of its potential danger, Hutt considered government to have great power to promote well-being, claiming in 1936 that “[w]e may regard the democratic State as the institution that is supposed to interpret and make effective the will of the aggregate of citizens as electors” (Hutt 1936, p. 257). He acknowledged the need for some public welfare, but was convinced that a government enforcing the rules that give maximum range for individual initiative and enterprise permits the market to achieve the most for humanity that can be done, constrained only by “natural scarcities.”

Hutt did not explicitly set forth a description of the source and nature of the individual rights that underlie his conception of liberty and government. Indeed, he described in 1930 a belief, so common today, that economics offers a superior alternative: “Economists are all clearly conscious of the desirability of a more equal distribution of wealth; indeed, they base their case for it upon the firm foundation that it will lead to a maximization of economic welfare, and not upon abstractions such as ‘natural

right' or 'justice'" (Hutt 1980, pp. 73–4).[7] This crude-utilitarian perspective is so prevalent even sixty years later that few economists consider the examination of "natural rights" necessary or advisable. Murray Rothbard, who takes a Lockean approach based on self-ownership, is an outstanding exception (Rothbard 1970, pp. 77–80). Hutt seems to take the utilitarian defense of freedom: it works.

In 1930, for example, he had argued that the economic defense of private property depends on the presumption that "the price determined under private enterprise is the one which best serves the common good" (Hutt 1980, p. 54, n. 29). He also admits (Hutt 1971, p. 46) to having "uncritically accepted" (in 1930) Edwin Cannan's defense of progressive taxation on the basis of diminishing marginal utility. His early thinking, he noted in 1971, "was founded on the fallacious belief that the utilities of income to different persons can be compared" (Hutt 1971, p. 46).

In his 1936 *Economists and the Public*, Hutt expressed most explicitly his sympathy with the utilitarian perspective. His warning of the philosophy's "truly unfortunate effect" (Hutt 1936, p. 300) on economics refers only to the misrepresentation of "economic man" as a short-run hedonist. By this time Hutt seemed to reject the explicit maximization of an aggregative concept of social welfare, explaining that the term "maximizing welfare" is acceptable "if we regard the term as having a purely subjective meaning and do not attempt to extend it to cover any summation of individual welfares into a broader objective unity as 'social welfare'" (Hutt 1936, p. 265, n. 2).

There is no doubt that utilitarianism can do immense damage when wielded by the untutored. Its "most unfortunate effect" today is the tendency of economists who are infatuated with technique and disdainful of philosophy to back into objective utility and interpersonal comparison without realizing it.

Yet these attractions of crude utilitarianism can be resisted by a strong sense of subjectivism and of the spontaneous coordinating forces of an unhampered market. Prominent economists of the Austrian school have joined Hutt in praise of a more carefully crafted position. Ludwig von Mises (1957, pp. 55, 58) has spoken approvingly of utilitarianism, referring to economics as "its finest product" and calling it a "philosophy of individualism." Much of F. A. Hayek's work reflects a strong utilitarian position. The example of Henry Hazlitt (1972) also shows that a utilitarian foundation can co-exist with a thorough

appreciation of the nature of a catallaxy and the rules that it requires. An excellent informal discussion of a utilitarianism that requires and supports individual rights is offered in a 1991 interview with Leland B. Yeager, who notes that he occasionally feels that "Hazlitt has already said everything" (Yeager 1991, p. 6).

"What are the proper limits to the right of association?," John Stuart Mill asked, and in his 1936 book Hutt reported that he "can hardly imagine any problem which is more directly relevant to political economy." He found Mill's advocacy of "freedom to unite for any purpose *not involving harm to others*" to be unsatisfactory because it raised "the rights of combination" above "the free action of individuals" (Hutt 1936, pp. 194–95), and wrote approvingly that Mill's "principle of expediency" justifies "the suppression of economic coercion and private monopoly" (Hutt 1936, p. 196).

In Hutt's perspective, some "combinations" are inconsistent with freedom. He knew that an unhampered market was of great benefit to the relatively disadvantaged. But exactly what activities constitute an "unhampered" market?

To some writers a free market means the absence of legislative violations of individuals' natural rights to life and property. Hutt would duplicate most of their policy advice, say on matters of minimum-wage laws and producer subsidies. But a rights theorist is likely to interpret the formation of a combination as part of the functioning of a free market. Utilitarians make much of the deadweight losses and reductions in consumers' surplus that would result, but these are not consumers' rightful property. Unless government violates rights by enforcing a cartel, its success will probably be temporary. But its existence is fully consistent with a market that, in the natural-rights sense, is free.

This is not a perspective that would command Hutt's agreement. Combinations like industrial cartels and labor unions, even if unsupported by restrictive legislation, reduce the welfare —relative to a state of open competition—of the ordinary citizen. Throughout his life, Hutt shared the position of Henry Simons and many modern economists that the enforcement of antitrust laws is essential to a market system.

In 1971, for example, he appended to his phrase "provided the appropriate governmental agencies are carrying out their essential role in the functioning of the free market" a footnote explaining that "this role covers primarily the prevention of

'restrictive practices'—or the role of what in the United States is called 'anti-trust' . . . Emphasis on this role meets the common objection, 'Yes, but markets do not always work'" (Hutt 1971, pp. 95, 99). "If business," Hutt wrote, "including big business, is in any measure responsible for pricing output beyond the reach of income (subject to any degree of inflation) the remedy lies in anti-trust initiatives" (Hutt 1971, p. 78). He referred to resale price maintenance as "one of the most burdensome forms of restrictive practice" (Hutt 1971, p. 86).

Hutt disagreed that "in its complete form [competition] would be ruinous," (1935, p. 184) because he considered "aggressive selling" tactics that he thought might be ruinous (like predatory pricing) not in fact to be competitive. In his view, a legislative structure supporting the market system would outlaw such practices. His terminology (unfortunately) appears to have something in common with modern structure-oriented theorists of industrial organization: Competition could not produce monopoly, it seems, but a system in which the bargains among resource owners were limited only by natural rights could. According to this view—which I believe to be Hutt's—the preservation of the competitive order requires legislation that is not confined by the limitations of individual rights. [8]

The somewhat uneasy (to me, at least) combination of Hutt's powerful understanding of the benevolent forces of the catallaxy and his deep concern for the welfare of the common citizen is seldom more apparent than in his concept of competition. It is "the substitution for consumers' benefit of the least-cost method of producing and marketing any commodity (or of achieving any other objective involving scarce means), irrespective of the institutional arrangements necessary for the realization of that result" (Hutt 1971, p. 99, n. 4).

It is significant that Hutt defined competition as a process, not as a structure. The modern economist is likely to visualize graphs depicting a perfectly-competitive outcome, a monopolistic outcome (smaller quantity, higher price), and a deadweight-loss triangle. Hutt would identify the entry and imitation by which the monopolistic position is moved toward the perfectly-competitive one as a competitive process. Even the creation of a deadweight loss triangle can be competitive if its cause is an entrepreneur's discovery and implementation of a lower-cost technique. As the competitive process continues, the price will be driven down, eliminating the deadweight loss and transferring surplus from producer to consumer.

Hutt's concept of "consumers' sovereignty," a phrase he originated in 1936, reflects some of the difficulties readers may find with his terminology. It is, to be sure, a healthy antidote to those who write as if producers can inflict their will upon consumers. By exercising their powers of choice, consumers in a market system provide both the incentive and the financing for producers to use resources as the consumers prefer.

Demonstrating the weakness of the substitution of a non-rights utilitarianism for a theory of natural rights, Hutt built his concept on an analogy between the market and government. "Regarded as an ideal," he asserted, "consumers' sovereignty rests on the same assumptions as does the ideal of representative government" (Hutt 1936, p. 262). In a semantic puzzle that reminds one, at times, of Marx, Hutt explained that an individual is sovereign in his role as consumer, and subject in his role as producer. He tells the story of an artist who eschews commercial assignments, at which he could earn incomparably more money, warning that "we cannot refer to producer's freedom as 'producers' sovereignty'. When he ignores society's demands, the producer and consumer aspects of the individual are merged in him. He exercises his sovereignty over the disposal of his own powers and property" (Hutt 1936, p. 263).

It is a perplexing notion, not clarified much by his assurance that he means "'sovereignty' in the sense of 'ultimate power', as opposed to 'source of authority'" (Hutt 1936, pp. 258–59). Hutt's concept of the free market is a society in which consumers' sovereignty is violated by neither government nor private groups. A producer's decision to take a vacation, or to produce a lesser-valued good for his own personal reasons, would be reckoned as his own exercise of his sovereignty as a consumer. His decision to collude with other producers would not. The act of collusion is not his own act of consumption, but it does reduce the ability of others to consume.

Although one must develop some facility with "ideal types" in economics—the Kirznerian entrepreneur who neither labors nor owns property, for example—the notion that producers are slaves and only consumers have rights seems a little difficult to keep straight. Every individual plays each role, in Hutt's taxonomy, but his rights adhere only to his role as consumer; in either his role as producer or as resource owner, he is a slave to other consumers. Hutt expressed it this way: "Applying this standard, we must regard property-owners as the custodians of the community's scarce resources. The powers they possess in

dealing with these resources must be regarded as delegated to them by society in its consumer aspect" (Hutt 1942, p. 157). The position is not nonsensical, but it appears to me to exemplify precisely the "*kinds of language the habitual use of which hinders the perception of certain things as well as the saying of them*" against which he warned us in 1963. Individuals have rights (or "sovereignty"), and to identify these rights with only one of the individual's many roles is confusing and dangerous.[9]

Hutt's unhampered market would be ruled by "natural scarcity," under which "given consumers' preferences, the sole factor determining the price of consumers' commodities will be the relative amounts of different kinds of productive resources and services available" (Hutt 1936, p. 260). Like many utilitarians, he seems to sidestep the fact that property rights may have something to do with what is "available," and at what terms. But "there are many deliberately created barriers to the most complete utilization of productive power" (Hutt 1936, p. 261), which he called "contrived scarcities." Although he attempted to explain that a producer's "sovereignty over the disposal of his own powers and property" (Hutt 1936, p. 263) could not contrive a scarcity, he identified collusive agreements and other "restrictive practices" like resale price maintenance as contrived scarcities that thwart the principle of consumers' sovereignty. To prevent this "private coercion," the firm enforcement of antitrust statutes was required on the behavior of both business and labor. Then—and only then—would resources be allocated according to "natural scarcities."

A Staunch Opponent—not of Unions, but of the Strike Threat

Hutt is often identified as a critic of unions. But he noted numerous ways in which a union may properly assist the worker in dealing with the employer, maintaining "that a labor union may provide the required knowledge of employment opportunities, supply the expertise and the finance to assist an individual to take advantage of those opportunities, and protect an individual's rights before the law regarding the wage contract as well as facilitate his recourse to the courts when necessary" (Hutt 1973, pp. 12–13).

In fact he opposed only their strike activity. His position was a simple extension of his opposition to private collusion, to the contrivance of scarcity. He fought what he considered to be the

private exercise of coercive power, whether by collusion among labor or business. Since government should assure that competition is free to perform its function, economists must oppose this poverty-creating coercion. That means opposing much of government's direct intervention into the economy (e.g., comparable-worth legislation), of course, but it also requires that governments break up private collusion and restrictive practices, eliminating contrived scarcities whether caused by business or unions of laborers.

He believed that the public and policymakers were already convinced of the necessity of addressing business collusion and "restrictive practices." But labor monopoly had long been blessed and/or feared by both the public and the politicians. There can be no doubting Hutt's courage in attacking what he considered to be the most powerful of legalized vandals, who stomp about the country seizing wealth primarily from those who can least afford it—usually with their naive acquiescence.

The Theory of Collective Bargaining (1930) examined the history and theory of two claims: labor's supposed "disadvantage" in bargaining over wages, and the "indeterminateness" of the wage rate. His history notes that unions had been the elite, aloof from and superior to the masses of working men and not caring much about them (see also, Hutt 1973, p. 26). A union's concerted activity raises members' wages only by excluding nonmembers from the particular labor market. Whether this raises or lowers the total wage payment depends on the elasticity of demand for this type of labor—which Hutt noted depends, in turn, on a welter of other elasticities. But the quantity of product will fall and its price rise: "The evil in labor monopolies lies not only in their driving the less fortunate to relatively badly paid occupations but also in their raising the cost of living to them as well" (Hutt 1980, p. 13). The principal "exploitation" is through higher prices of consumer goods, and "the greater part of the demand for consumers' goods is exercised by relatively poor people" (Hutt 1980, p. 73).

The belief that unionized labor can exploit capital dies hard. Hutt noted that surely capital can be exploited in the short run. Indeed, there is no more "sitting duck" than a producer who has sunk huge sums into highly specific capital goods. But using an argument like that of "rational expectations," Hutt reasoned in 1930 that "if it were really normal for labor to exploit capital invested in [a particular] class of undertaking, the result would be that less would be invested in this class" (Hutt 1980, p. 62).

Investors will look for risk-adjusted returns, and among the risks will be that of the strike. Pre-risk yields on capital invested in different ways will correspond in a direct relationship, and quantities invested in an indirect fashion, to the *ex ante* risk and seriousness of strike. In 1973 he applied the same argument to *human* capital: "The volume of labor which will come forward to be trained for or otherwise become attached to any occupation in which (in the light of past experience) labor appears liable to 'exploitation,' will be reduced to the level at which the prospective long-term benefits are equated with the prospective benefits from training and employment in other occupations" (Hutt 1973, p. 5; all italicized in the original).

Arguing that the "*fear* of strikes inflicts far greater damage on the economic system than actual strikes" (Hutt 1973, p. vii, 1980, p. xviii), Hutt maintained that the result of the political acceptability of the strike is that the strike-threat is an ever-present "contrived" cost of doing business.

The harm that the strike-threat wreaks is often not evident in the unemployment statistics, but results from a pattern of resource use that is not optimal at dealing with "natural scarcity." This problem of "diverted resources" (perhaps better known as disguised unemployment) affects both capital and labor. The existence of this type of unemployment is not obvious, but the welfare of all of us, perhaps especially the poor, is lower than it could be. Hutt's position reflects an appreciation of the Austrian concept of the capital structure and the significance of patterns and types of capital good and labor. Comparing the second and first editions of *The Theory of Collective Bargaining*, Hutt identified as a "major improvement" "the emphasis I now place on the *composition* of the assets stock and the composition of the stock of complementary assimilated knowledge and skills (in reaction to prospective strike-threat depredations" [Hutt 1980, p. xviii]).

Hutt's analysis of the effects on standards of living of "wage-multiplying assets" and their increasing specificity are superb. His case that the strike-threat reduces welfare, despite the impossibility of quantifying it, is well made. But his conclusion that this warrants outlawing the threat is utilitarian. Without some form of contract, the agreeing among a group of skilled workers to withhold their labor unless paid nearly the whole value of the product violates neither capitalists' nor consumers' rights. A carefully prepared contract can, in principle, reduce the risk of becoming dependent on one employer or employee;

without it, the risk is a cost of the increased productivity of specificity.

The enforcement of the antitrust laws is the only major issue on which I—as I believe most other Austrians—disagree with Hutt. To advocate the use of government to prevent actions that violate no rights opens a Pandora's Box.[10] Hutt's heartfelt concern for those of middle and lower incomes may, unfortunately, have made him a victim of "power-thought," an enemy of "rational-thought" of which he warns us in 1936 (Hutt 1936, p. 52 *et passim*).

Money, Macroeconomics, and the Influence of Keynes

Most economists who began their careers around 1930 were profoundly affected by the profession's spectacular embracing of John Maynard Keynes's *General Theory*. Like Hayek, Marget, and Henry Hazlitt, Hutt had read widely and had developed a respect for the monetary economics that had been developed by Hume, Say, Thornton, Wicksell, Mises, and others. "In my judgment," he wrote, "ever since the remarkable contributions of Locke and Hume, monetary theory has been one of the least unsatisfactory branches of economics" (Hutt 1963, p. 87).[11] A brief study of Hutt's interpretation of pre-Keynesian monetary theory will help us to understand his reaction to the *General Theory*.

Pre-Keynesian monetary theory, as Hutt saw it, recognized that the preferences of individuals in an economy are linked by their understanding that the use of money and markets can further their ends. Presupposing that individuals know something about physical reality, markets produce money prices, quantities, and production techniques that are determined by individuals' preferences for different goods, leisure, time, and liquidity. Anyone who cares to can use these simple money prices to compute relative prices, rates of interest, and a price level. But these constructs are all derivative from particular money prices.

Neither he nor other pre-Keynesian writers considered prices to be "perfectly flexible" (Hutt 1979, p. 77).[12] If that phrase requires traders instantly to identify the equilibria implicit in a new set of preferences, and to reprice just as instantly, it verges on the nonsensical. When a trader is still unconvinced that preferences have turned against him, he may prefer some combination of adjustment in quantity and in price. This quantity adjustment is the conventional explanation of

unemployment. Hutt properly identified it as a natural part of the search for information, and called it "pseudo-idleness" (Hutt 1977, p. 83). The combination of changes in price and the disutility of "pseudo-idleness" provides the entrepreneurial incentive and information required for the redirection of resources. Although significant *changes* in either time or liquidity preferences might produce periods of unusually high "pseudo-idleness" (now called frictional or structural unemployment), Hutt repeatedly emphasized that no particular set of preferences —no *level* of time or liquidity preference—was inconsistent with full employment: "*there are no economic ends, and no entrepreneurially chosen means which are incompatible with 'full employment*'" (Hutt 1963, p. 79 [italics Hutt's]; also, pp. 24, 231, and elsewhere).

Hutt respected the gold standard for achieving a stable level of prices, and considered it the obligation of a monetary authority under more "modern" systems to maintain general price stability. Monetary expansion more rapid than the required rate could, of course, affect the market rate of interest and, by falsifying the information provided by the "uninflated" pattern of prices, increase employment and real output. Hutt noted that this had been understood as long ago as Hume; certainly Thornton and Wicksell made much of it. But it had been considered a very poor and costly—socially impoverishing—way of dealing with discoordination in the pattern of prices. Better to address institutional rigidities directly—say, by applying anti-trust legislation vigorously to both business and labor and outlawing the strike-threat.

Idle Resources and Unemployment

Apart from a few comments quickly inserted into *Economists and the Public* (Hutt 1936, pp. 245–47) as both it and *The General Theory* were in press, Hutt's first direct response to Keynes was in the remarkable *The Theory of Idle Resources* ([1939] 1977).

The work's principal point was that we must be cautious in the conclusions that we draw from the observation that some resource is—or is not—apparently engaged in some kind of productive activity.[13] Hutt reasoned that by examining the *process* that determines whether a machine or person is either "working" or "sitting," one can evaluate the economic function of the activity in which the resource is engaged. Only by exploring the causal process behind the apparent "idleness" or

production, he insisted, can one judge whether it is a sign of the market's proper functioning or whether it poses a problem that deliberate government policy might help to resolve.

This is not the place for a full-scale analysis of *Idle Resources*, but a brief description of Hutt's system of classifications of idleness will convey some of its flavor. It reflects those aspects of Hutt's work with which most Austrians would agree, as well as a few with which many would differ.

Although Hutt's first chapter is entitled "Definition of Idleness," and its Section 3 is "The necessity of definition," I can find no clearly stated expression of the meaning of "idleness." The chapter is, instead, a plea for consideration of different causes or types of idleness, and a fine (though brief) argument that it cannot be quantified (Hutt 1977, pp. 49–50). One must *infer* a general meaning from Hutt's detailed classification and from a knowledge of the rest of his works.

A resource is "valueless" if the sum of the *competitive* prices of its complementary inputs exceeds the price of the product. (If the sum exceeds the product price only because the other inputs are "monopolistically" priced, then Hutt would probably classify the resource as "enforced idleness." He was, as we have noted above, a supporter of the general goal of antitrust as applied to both business and labor.) As one might expect, most of the book deals with *valuable* resources.

The important category of "pseudo-idleness" embraces humans who are engaged in job search, education, or "productive consumption," and physical capital goods that are unused for certain reasons.[14] "Preferred idleness" includes humans who, though excluded from certain occupations by legislation and/or union activity that seeks monopoly rent, elect not to work elsewhere. "Participating idleness" is Hutt's general term for resources that are idle to gain monopoly rent; if they have no value in other employments, they constitute "pure withheld capacity" or (if enforced by legislation and/or union activity) "pure enforced idleness."

In this and later works, Hutt properly assigned great significance to the problem of "diverted resources," normally called "disguised unemployment" when applied to labor. Although these resources appear to be productively engaged, their employment is clearly "suboptimal" if it is the result of some kind of distortion or deviation from a free and competitive system. Hutt discussed, also, "aggressive idleness" (resources held back for the purpose of "predatory pricing"), "strike

idleness," and a few other subsidiary classifications.

It is difficult to follow all of the qualifications and interconnections involved in Hutt's system of "at least six" (according to him) or ten (according to me) classifications of "idleness."[15] What is significant about the work is not the disagreement that one might have about Hutt's interpretation of a "free" market (see above, "Freedom, Government, and the Market"), but rather the delightfully insightful analysis of *process* that characterizes *Idle Resources* (particularly with its 1977 addenda).

The ability of unanticipated monetary expansion to reduce some measure of observable unemployment has been acknowledged for centuries. To Hutt, however, its primary effect was to draw resources out of productive "pseudo-idleness" by cutting short the process of search for employment that best satisfied "uninflated" demands. Perhaps acknowledging the popular belief that the word "unemployment" implies some kind of failure or problem, he suggested that we change the way we think about an individual who (in modern terms) is "frictionally" or "structurally" unemployed. His situation has "been mistaken for unemployment," Hutt wrote. "When *actively* searching for work, the situation is that he is really investing in himself by working on his own account without immediate remuneration. He is prospecting" (Hutt 1977, p. 83). Later he explained that he feels "that the process [of job search] is productive employment rather than 'a productive way in which to use leisure'" (Hutt 1977, p. 126), as it had been described elsewhere.

Even readers who prefer to resist Hutt's implicit advice[16] to redefine frictional and structural unemployment as "employment" can accept his point that—given the perennial change of a dynamic free market and the "imperfections" of information—there is a clear sense in which these resources are, indeed, being used "optimally." Hutt had an abiding confidence in the process of free-market pricing to discover and promote patterns of resource use that best satisfy consumer demands. The power of deliberate policy to bring about this pattern of resource use (human and physical) was limited by the central planner's inability to obtain, and lack of incentive to act upon, the specific knowledge of individual preferences that would emerge from the market process.[17]

What the use of stimulative monetary policy *could* achieve, along with its immediate goal of a reduction in observable measures of unemployment, was "diverted resources"—the

channeling of human and physical resources out of the search process and into occupations different from those in which it would have culminated. Warning of this problem, Hutt wrote:

> Superficially, manifestation of the disease in 'sub-optimal employment' seems to be the least harmful form. In reality, we are about to suggest, it is a symptom of the most malignant consequence of impoverishing discoordination. (Hutt 1977, p. 30)

and that:

> But we propose to argue further that the third, relatively *inconspicuous* and *ultimate* manifestation of the disease, namely, the employment of men and assets in sub-optimal activities, is even more detrimental to society; for it mitigates the pains of inflation as well as reduces the conspicuous idleness of human and physical resources. (Hutt 1977, p. 32)

The great detriment of the Keynesian emphasis on aggregate demand, and "employment" (or unemployment) conceived as an aggregate, was its simplistic promotion of policies directed only toward these aggregates. Hutt's point that the "demand" so stimulated[18] was almost certain to "divert resources" from the employments consistent with individuals' real ("uninflated") preferences. His position is consistent with, though broader than, the Austrian theory of the business cycle.[19]

Price Flexibility as Recovery Policy

Hutt never wavered from his principle that the observed unemployment of labor and capital was due to the "mispricing" of particular goods. According to this thoroughly Austrian, pre-Keynesian "classical," Say's Law position, "*[t]he disease is discoordination of the economic system* caused through defects in the administration of the pricing mechanism" (Hutt 1977, p. 29), and the only truly effective remedy was for policymakers to eliminate every institutionalized barrier to price flexibility. Hutt's position is likely to be identified by the "classical" or Austrian scholar as courageous and principled, worthy of admiration and gratitude. No economist who is familiar with the powerful forces against which Hutt stood could suggest that this respect be even partially contingent upon complete agreement with his

interpretation of "defects."[20]

The Great Depression of the 1930s posed a severe test to a position like Hutt's. It is interesting to compare his position with the policy advice of the better-known Ludwig Lachmann. Lachmann, while justly respected as one of the great Austrian economists, always perceived considerably more virtue in Keynes than did any other Austrian. Since Hutt shared much with Lachmann and the Austrians, but devoted most of his career to debunking Keynes, a comparison of their stories about the early years of the Great Depression is intriguing.

During the 1920s, Britain's persistently high unemployment had convinced Keynes that the institutionalized sources of nominal-wage rigidity were invincible. He concluded, in opposition to the dominant "Treasury View," that only a forced increase in demand—in the form of public works projects—could cure the malaise. Keynes's argument, however, left the "classical" *theory* intact. It was to prove the "classical" theory wrong, to prove that capitalism would be plagued by persistent unemployment even if institutional price rigidities were snapped and nominal prices and wages were freely flexible, that Keynes began in the late 1920s to develop the argument of *The General Theory*.

Not everyone was convinced. In a 1977 interview, Ludwig Lachmann recalled:

> two different letters to the *London Times* . . . appeared in October, 1932. . . . In one of them, Keynes and some Cambridge economists who were not, in general, his friends, like Pigou and Dennis Robertson, demanded that the government should take steps against unemployment. And three days later, Hayek, Robbins and Arnold Plant sent another letter saying that anything the government did by way of public works or similar methods would only make things worse and would not have the effect that Keynes claimed it would have. That is to say, the "Austrians" seemed to be committed to a policy of continuous deflation whatever happened. (Lachmann 1977, p. 2)

Arnold Plant had been one of Hutt's professors, and Hutt's later writings—like the 1939 *Idle Resources*—suggest his sympathy with the letter of Hayek, Robbins, and Plant. It is a little tougher, though, to identify Hutt with Lachmann's interpretation about

"deflation," because—as we shall see—Hutt believed that, in most cases, monetary policy should stabilize the general level of prices. But he also was convinced that if the British government had acted quickly to break her economy's severe and destabilizing institutionalized price rigidities, no such deflation would have occurred.[21]

Ludwig Lachmann admired much about the Austrian theory of the business cycle (Egger 1986), and his 1956 work (Lachmann 1978) is the most advanced discussion of the Austrian theory of capital that is available. It is likely, however, that he disagreed with Hutt about the ability of free-market repricing to deal satisfactorily with the problems of the early 1930s.

I have been unable to draw a conclusion stronger than this, because Lachmann respected pricing and Hutt advocated (in some cases) monetary or fiscal stimulus. While Lachmann's recommendation for stimulus in the early '30s is relatively clear, the policy that Hutt recommended is not.

Lachmann adopted Hicks's terms, differentiating between "weak" (consumption-led) booms amenable to Keynesian analysis, and "strong" (investment-led) booms that fit the Austrian mold. He identified the American economy of the 1920s as a "weak" boom (Lachmann 1978, p. 113) and argued that "capital regrouping by itself [as a rule will not] suffice to overcome the situation following the end of a weak boom . . . and there may be much scope for the Keynesian nostrums. No doubt such an underconsumption crisis, due to a flagging 'effective demand' can be at least mitigated by increasing this demand" (Lachmann 1978, p. 119). "[T]here is danger," he wrote further, "that such an underconsumption crisis may degenerate into a cumulative depression. If so, a budget deficit may help" (Lachmann 1978, pp. 125–26). His principal concern, "capital regrouping," was the way in which capital goods were used; since they are reshuffled in response to price changes, I interpret his statement as disputing the efficacy of repricing as a cure for the collapse of a "weak" boom.

Price flexibility fared much better in Lachmann's remedy for the collapse of an investment-led "strong" boom, with which the Austrian theory deals. He recommended, in particular, that no attempt be made to hold the rate of interest down (Lachmann 1978, p. 124). But his *laissez-faire* recommendation was sharply qualified. Correctly noting that "[a]ny sudden and unexpected change in the 'real situation' will probably affect the demand for

and the velocity of circulation of money" (Lachmann 1978, 119), Lachmann observed that "where the banks are involved . . . the danger of *secondary deflation* is always present. When that happens the 'recession' which succeeded the strong boom will turn into a 'depression,' a cumulative process of income contraction, as has often happened in the past. Of course it need not happen. But to avert the danger must always be the primary aim of monetary policy in a recession" (Lachmann 1978, p. 120). [22]

According to this analysis, the situation in the United States in the early 1930s would justify both fiscal (as the collapse of a "weak boom") and monetary (as a period of sharp drop in the money supply) stimulus. Lachmann's discussion of recovery policy left the flexibility of prices as an adequate remedy only in the case in which a "strong boom" ended with no attendant collapse of MV.

Other economists who share Lachmann's generally deep respect for the virtues of unhampered pricing agreed that the deflationary early 1930s posed a test that price flexibility could not meet. Nominal price fluctuations work well at providing information and incentive, argued Leijonhufvud (1973), but only if they are sufficiently small that prices remain within a "corridor" within which confidence in effective demand is not shaken, and that was not the case in the early '30s. In a recent apparent attempt both to explain the appeal of Keynesianism and rebut the "*laissez-faire*" (and Austrian) theory, Tyler Cowen (1989) based his case on quantitative historical data consisting of broad aggregates and averages. [23]

Professor Hutt discussed the "secondary depression" or "secondary deflation," like Lachmann's, but he also described a "purposeless deflation." I have not been able to discern clearly the relationship between these two categories of deflation. "Purposeless" identifies "deflation which is not a deliberately chosen means to an end, such as rectifying injustices in the distribution of income, or a determination to fulfill contractual convertibility obligations" (Hutt 1979, p. 229; 1963, pp. 125–26). Among those deflations that were not "purposeless," he used the apparent synonyms "corrective" (Hutt 1979, p. 70) and "rectifying" (Hutt 1979, p. 229, n. 24) to identify the collapse of an inflationary "cheap-money" boom. This was the bust or crash of Austrian and pre-Keynesian works, and it was "purposeful" in the sense of serving the clear, socially advantageous economic function of shaking out the distortions imposed by the preceding

inflation.

A "purposeless deflation" offered no such advantages, and in fact imposed distortions of its own, and Hutt warranted that in "rare circumstances . . . credit expansion may be justified":

> In the purely imaginary case in which an expansion of MV merely reverses a former *purposeless deflation*, it may *restore prices* in the industries which did not withhold capacity and *restore outputs* in industries which did withhold capacity. (Hutt 1979, p. 229)

He further claimed that "I cannot think of any non-Keynesian economist who would deny the possibility that there have been times in which deflations have been misconceived or ill-advised" (Hutt 1979, p. 229).

Hutt admitted of the possibility of "secondary deflation," but maintained that "as we have seen, speculative demand for money . . . arises when current costs or prices are higher than anticipated costs or prices, while *the speculation assists correctly discerned policy*" (Hutt 1979, p. 277). He argued that the need for a "secondary" deflation arises only from "*the unstable rigidities*" (Hutt 1979, p. 277) that interfere with the smooth repricing process. "If speculative demand for money accompanies the downward adjustment of wage rates and it is not offset by credit expansion, a rectifying deflation must be in progress" (Hutt 1979, pp. 277–78).

Was the 25 per cent drop in the M1 money supply of the United States, between 1929 and 1932, responsible for what Hutt called a "purposeless" deflation? Did it constitute a wild overshoot, going far beyond the corrective, rectifying process to inflict positive damage of its own?

Lachmann, Marget, and many others believed so.[24] As for Hutt, most of his discussions focus on the British rather than the American economy during the early 1930s, but he did concede that "[t]here are several non-Keynesian economists (notably Milton Friedman and Clark Warburton) who interpret the United States deflation of 1930 to 1933 in this light" (Hutt 1979, p. 229; also, p. 204). That was not much of a concession, and he may not have agreed.

In his *Keynesianism*, Hutt maintained:

> What "sound finance" *did* do in the pre-Keynesian era was to create every incentive to reprice services and products the sale of which was being held up,

> as well as to create a strong social motive to eradicate practices which reduced the flow of uninflated income. In the private sphere, the pressures were fairly successful, and had it not been for contrary action by the State, they could, I believe, have rescued the [British] economy—without inflation—from the great depression. (Hutt 1963, p. 42)[25]

After noting, a bit later, that the Macmillan Report identified the great depression as "monetary" in nature "because monetary policy had failed to solve the problems caused by 'a conjunction of highly intractable nonmonetary phenomena'" (Hutt 1963, p. 80; 1979, p. 166), Hutt pointedly asked, in italics: "*But why should monetary policy be expected to solve such problems*?" He noted that "[w]e are abusing any monetary system if we try to use it to rectify nonmonetary discoordination" (Hutt 1963, p. 80).

This was a theme that remained strong in his writings throughout his career. Monetary policy (which, as Hutt used the phrase, included fiscal policy; he correctly saw no substantive difference[26]) is ill-suited as a remedy for an incorrect, discoordinated, pattern of relative prices, yet it is just such a pattern that particularly characterizes a depression. There is *never* such a problem as "insufficient aggregate demand," Hutt argued, so "stimulating it" is always the wrong answer.

Critics of a repricing policy—e.g., Cowen, cited above—associate it with "deflation," but a general reduction of prices and wages has *never* been the point.[27] "[P]re-Keynesian policy did *not* rely on changes in 'the general level' of money wages and prices," Hutt wrote (Hutt 1979, p. 159). The issue, for him and for most Austrian economists, has been a rearrangement of particular money wages and prices, changes in the structure of relative wages and prices. It is hardly coincidence, of course, that in a period of widespread unemployment most of the adjustments of nominal prices and wages happen to be downward. But the downward slide of *levels* or *averages* is incidental to the Austrian adjustment, not the essence of it. The only defense of a falling level of nominal prices that accompanies the reshuffling of relative prices is that there is no way to *prevent* such a decline without interfering with the process of the efficient restructuring of relative prices and wages.

Despite the many respects in which Hutt's perspective may

appeal to Austrians, for a couple of reasons one must be a bit cautious before categorizing him.[28]

The first reason is that his concept of a "free market" (and, therefore, *laissez faire*) not only permitted but *required* government action against collusion (of both business and labor). If it were clear that the pattern of prices obtaining on the eve of a depression was the result of the exercise of such "private coercion," Hutt had no qualms about using the force of government to help to break the initial rigidities. "[O]ne thing *is* clear," he wrote. "There has never been a case for a government *to overrule* the market. Yet there is a case for the collective overruling of a privately contrived overruling!" (Hutt 1979, pp. 175, 176).

In his 1979 revision of *Keynesianism*, he specifically addressed the question "What do *you* recommend should be done about the restoration of 'general activity' in a depression" (Hutt 1979, p. 167)? His 10-page discussion may puzzle and dismay those who seek to identify him with *laissez faire* in its natural-rights sense, since it describes a "Special Authority" (Hutt 1979, pp. 171–72) with—among other things—the power to force wage reductions in industries where it is apparent that prior collective bargaining had driven them above market-clearing levels. (The reductions would stop when the affected industries reported that further reductions would not permit them to retain their workers.)

The critical reader must recognize that, to Hutt, the snapping of collusively established prices is hardly different from, say, the removal of a government-enforced price support on an agricultural commodity or of a rent ceiling. Furthermore, the practical success of collusive "withheld capacity" and above-competitive prices, over a number of years, usually *does* require the intervention of legislation that violates individuals' rights. Hutt did not insist that we accept his specific method of resolving this problem. But the reader should be somewhat discomforted if he is inclined both to be harshly critical of Hutt and to believe that voluntary collusion doesn't work.

A second reason for caution about categorizing Hutt is his advocacy of the policy goal of a stable level of prices. He apparently became more convinced of the desirability of this goal between his 1963 *Keynesianism* and its 1979 revision, *The Keynesian Episode*; a page-by-page comparison often shows the insertion of new paragraphs emphasizing the stability of "M_r", "the aggregate value of money in 'real terms'" (Hutt 1979, p.

191), which seems to be simply M/P (or its quantity-equation equivalent, T/V).[29] He advocated a gold standard (e.g., Hutt 1979, p. 172), but as long as an institution like the Federal Reserve System continues to exist he believed that its mandate should be general price stability. "[I]f the value of the money unit *is* to be maintained at a *defined and constant value*," he wrote, "monetary policy will *have* to be flexible and the nominal money supply must rise in proportion to the flow of services" (Hutt 1979, p. 174).

Despite all of his emphasis on the snapping of institutionalized price rigidities and the abilities of competitive repricing to achieve coordination, Hutt was most distressed at *Keynesianism* reviewer David McCord Wright's characterization of him:

> Where I failed most seriously, however, was in leaving my critic with the impression that I am "a hard-shell, sound money, and price-flexibility man *who would never increase M or certainly not MV*" (my italics). Wright did perceive that some of my "qualifications" conflicted with any such judgment. But a large part of what I was trying to communicate was *exactly the opposite*—to show that, whereas in Keynes's equations M was a constant, I regarded it as a policy variable. (Hutt 1979, p. 17)

Bringing this policy goal to bear on the question of the "secondary deflation," Hutt noted that market-clearing repricing is associated with deflation only "on the assumption that the increase in real income is confronted with monetary rigidity. But why *should* we always assume monetary rigidity" (Hutt 1979, p. 275)? He argued that when monetary policy either consciously aims at, or simply passively permits, a general rise or fall in the level of prices, "*the whole price system is immediately thrown out of coordination*" (Hutt 1979, p. 278). Although a deflationary repricing process will eventually shuffle things around at a lower level of prices, he found that to be "crude and wasteful":

> It is really superfluous, I feel, to have given as much attention as I have to so crude and wasteful a method of curbing secondary inflation [*sic*: deflation]; for a rectifying credit expansion is always possible. There is never any good reason why central banks cannot control the magnitude M

> so that MV is in constant relation to T. (Hutt 1979, p. 278)

The Austrian theory of the business cycle, with which Hutt was thoroughly familiar, provides a reason (and maybe a "good" one): it is impossible to increase M without affecting relative prices, a process that necessarily interferes with the market's efficient rearrangement of them. (Austrian business-cycle theory is built on the assumption that monetary policy is conducted in such a way that the particular relative prices whose work is systematically thwarted are those involving the rate of interest.) Hutt was not an enthusiastic supporter of the Austrian theory of the business cycle, although he appreciated its general approach. [30]

Evidently he believed that monetary policy could be conducted to minimize its effect on relative prices, while preventing the "crude and wasteful" process of price deflation by stabilizing the general level of prices. The benefits for long-range planning of a stable level of prices may have more than offset, to Hutt, any incidental and essentially random effects that a properly conducted monetary policy would have on relative prices.

So what are we to make of Hutt's stand on "secondary deflation," price flexibility, and monetary policy? What are the differences (once we get beneath the anti-Keynesian vs. Keynesian terminology) between his position and Lachmann's? As even those who deeply respect his work have come to expect, he does not make the drawing of a clear conclusion easy.

First and foremost, Hutt explicitly stated his conviction that a sufficiently courageous government could have snapped the "unstable price rigidities" for which (in Britain, at least) coercive union activity was largely responsible, and that if this action had been taken no significant decline in the general level of prices would have occurred.[31] His analysis of Say's Law explains that a move toward equilibrium of the price in one industry increases the output (and, probably, employment) in that industry. This, in turn, stimulates the demands—in a natural and healthy way—for other ("noncompeting") goods, reducing the size and ameliorating the effects of the price adjustments necessary in their markets. Sufficiently early and vigorous repricing in just a couple of major industries might well have clipped off any general deflationary pressures.

Second, however, is Hutt's evident conviction that once a

"secondary deflation" (at least one that is "purposeless") has begun, it is the foremost task of the monetary authority to stop this "crude and wasteful" process with a "rectifying credit expansion." Such advice seems to place him in the company of many, including Lachmann, whose dictum that avoiding secondary deflation "must always be the primary aim of monetary policy in a recession" (Lachmann 1978, p. 120) could just as well have come from the pen of Hutt. Like the Austrians, he identified its cause as the distortions produced by a preceding inflation, and he appears to have allowed for ("purposeful") "corrective" deflations (some of which might even be "secondary") that he would not offset with monetary stimulus (Hutt 1979, pp. 277–78). But when a deflation was "purposeless," the humane prescription was a "rectifying" monetary expansion.

Third, although he emphasized "price coordination" and wrote as if "purposeless deflation" was very rare, his clearly and frequently stated monetary goal of general price stability stirs up the issue a little more. Hutt is properly respected for his work on the coordinating effect of the repricing of particular goods; this position is much less radical if a stable price level is being taken for granted.

In summary of this section, I think the general reputation of Professor Hutt as a courageous advocate of price flexibility is correct and dominating, and it is largely that which will *and should* appeal to Austrian economists. But it misstates Hutt's position (and he would not appreciate that) to infer that in an economy confronting a sharp rise in the demand for cash balances, he would place the whole burden of adjustment on individual repricing decisions. He shared with others the belief that resource allocation through repricing worked best in an environment of a stable price level.

A Few Observations on Keynes

Today we can only imagine the shock and dismay that monetary scholars like Hutt and Marget experienced at the popularity of the *General Theory*. Hutt wrote, "Keynes's confidence, eloquence and reputation—not his reasoning, which at first left me bewildered—dealt the hardest blow to my own intellectual confidence which it has ever received" (Hutt 1963, p. 4).[32] He worked hard on the *General Theory*, but found it so fraught with confusion and error that he hardly knew where to start. "Where

he was right," Hutt concluded, "he was not original, and . . . where he was original he was wrong" (Hutt 1963, p. 11).[33]

Like most interpreters of the *General Theory*, Hutt identified the key element as the assumption of price rigidity. (Although Keynes discussed nominal rigidity, his great effort was to demonstrate that capitalism would be plagued by rigid relative prices even if nominal prices were perfectly flexible (Egger 1989, pp. 446, 448–50).) Surely, if something keeps relative prices from changing then only a specific pattern of preferences will be consistent with full employment, and a set of preferences (e.g., for time or liquidity) that is inconsistent with these rigid relative prices will produce lasting unemployment. The government can either force the expression of preferences that are consistent with the rigid prices (through the taxation and spending that constitute fiscal policy) or render the price rigidities ineffective by the deliberate distortions resulting from inflationary monetary policy.

Hutt's conclusion about the principal message of the *General Theory*, hidden among new terminology about multipliers and things, was that the effects of discoordinations caused by price rigidities could be concealed by increasing the supply of, or reducing the demand for, money. Hutt considered these insights to be among the oldest in monetary theory, but the whole of the Keynesian system seemed to be a contorted defense of their use.

The various spending "multipliers" functioned, Hutt demonstrated, only if they were accompanied by reduced demand for, or increased supply of, money. His brilliant chapter "The Acceleration Fallacy" (Hutt 1963, pp. 289–339) showed that the "accelerator" rests on a stock-flow confusion and an arbitrary specification of time period.[34]

But the fundamental confusions in Keynes's thinking, culminating in his false denial of Say's Law, were deep and conceptual. The modern student, imbued with the concepts of Keynes-inspired macroeconomics, will find it almost impossible to follow Hutt here. The Austrians—with their subjectivist, disaggregated approach and concern about "essentials"—are best equipped to appreciate Hutt's work.

Consumption, for example, is "the extermination of value (Say's definition)" (Hutt 1974, p. 13) and usually involves exchanging an asset for services (say, eating a can of beans). In no sense is it spending money, which is an exchange of one asset for another (buying another can). One generates income not by spending money but by creating productive services. These

involve disutility, so they will be created (supplied) only for the purpose of demanding something whose value exceeds the disutility. It is not a matter of "supply creating demand" or vice versa; one can't do one without the other.

Some of the services might be consumed immediately by their creator (scratching one's chin), but the rest—unconsumed income—is at least temporarily *saved*. One cannot save *in general*, without those savings taking some specific form. Choosing that form is *investing*, the exchange of services for assets.

Rather than examine in detail Hutt's (1974) "rehabilitation of Say's Law," let us consider its principal effect on the typical undergraduate presentation of Keynesian macroeconomics.

If saving without investing is impossible, the whole Keynesian objection to Say's Law evaporates. The typical Keynesian story relies on different individuals doing the saving and investing, with some of them deciding to save while the others decide not to invest. I recall Hutt's exclamation, "How hopelessly wrong it all is!"[35]

The role of the rate of interest is a vital point on which Keynes was thoroughly confused. Hutt joined other "natural rate" writers in identifying it with individuals' time preferences. An individual would save, in the sense of increasing the relatively permanent level of his assets, only if he perceived the rate of return on available assets to exceed his own time preference. If nobody offered to borrow at a rate above his own time preference, and no asset that he could purchase himself (including additions to his own money balances) offered an implicit return in excess of it either, he simply would not increase his stock of assets. His preferred alternative would be to exchange his income services, through the intermediary of money, for assets (like the beans) whose services he would consume relatively quickly.

"There is *always* a 'demand for savings.' There are *always* 'investment outlets' or 'investment opportunities,'" Hutt wrote (Hutt 1963, p. 240), and it is probably his single most telling point against the general Keynesian system. There is no downsloping IS curve relating the rate of interest to the amount of output and employment. The rate of interest affects not the size but the composition of output, the time pattern of achievable future consumption, according to individuals' preferences.

Hutt pointed out that Keynes was able to develop an upsloping LM curve—a set of (interest rate, income) pairs at which the demand for and supply of money were equated—only

because he confused liquidity and time preferences.[36] "He claimed that the determinants of the rate of interest are the supply of and demand for money (liquidity). Now, the intelligent tyro in economics jumps quite naturally to this kind of conclusion, which Keynes obviously thought he could make the keystone of his system" (Hutt 1963, p. 29).[37]

One of Hutt's best known arguments is that "the demand for money is not . . . a function of the absolute level of the rate of interest" (Hutt 1963, p. 106). A market rate of interest is implicit in the relationship between the price of assets and that of their services. A pure rise in time preference requires that the prices of assets fall and of their services rise. A pure rise in liquidity preference will reduce both asset and service prices, leaving their relationship unaltered.

Of Keynes's "opportunity cost" argument, Hutt maintained: "The extent to which people will sacrifice *pecuniary* interest in order to hold money is completely uninfluenced by the absolute level [of the rate of interest]; for a similar sacrifice has to be made in order to acquire or retain all other assets" (Hutt 1963, p. 106). This is—in part—a denial of the Keynesian dichotomization between the decision to save, and the decision to hold that savings in a particular form (bonds or money): while the dichotomizing Keynesian naturally interprets explicit monetary interest as a cost of holding money, Hutt reminds us that it is really the cost of holding *anything except* bonds. Keynes's "speculative" reason for holding cash balances was more acceptable to Hutt, but was just an example of a combination of transaction costs and uncertainty about future prices—which itself was likely to have had monetary causes and, in any case, bears no necessary relation to the current level of interest.

All that was left of the Keynesian insights, after deleting these errors, was the thoroughly pre-Keynesian conclusion that a market system whose coordinating forces are hobbled by rigid prices would likely not employ resources fully, but that some obvious effects of those rigidities could be eliminated by monetary policy.

Late in Hutt's life, he was excited that others—particularly Clower, Leijonhufvud, and Yeager—seemed to express views that were importantly like his. The term "unemployment equilibrium" faded, to be replaced by the more satisfactory "unemployment disequilibrium." The problem became not that income services were not demanded, but that they were neither supplied nor

demanded because of discoordinations in the pattern of relative prices. These advances seemed like an affirmation not only of his work, but of the pre-Keynesian monetary tradition he had striven so hard to uphold.

Conclusions

We feel that we understand another when his points seem consistent with our prior beliefs. The great difficulty that Hutt faced was that the concepts comprising the macroeconomic superstructure, in which—by now—so many have so much invested, are difficult to integrate with an understanding of how a money-using catallaxy functions. He believed that he had to go beneath them, to some kind of foundation on which we could all agree, and then construct almost a "parallel universe," a new (which he always insisted was old) conceptual structure adequate to the task.

His exposition is considerably less unfamiliar to those already well acquainted with the subjectivist analysis of catallactic processes. William Hutt was driven by his understanding that the market excels at producing and equitably distributing wealth. Economists could help, or at least not get in the way, only if they understood the functioning of a monetary catallaxy. Developing and conveying that understanding was Hutt's life work, and in it there is much of value that the well-read Austrian cannot afford to miss.

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[1] For an excellent brief summary of Hutt's life and work, see Salerno (1991).

[2] Each of us has his own interests and I certainly respect Bob Formaini's judgment, but I consider Hutt's *Keynesianism* books (and *Say's Law*) considerably better and more important.

[3] Seldon 1988, p. 34. See also Hutt's review essay on Buchanan and Tullock's *The Calculus of Concent* (Hutt 1966). Several other essays reprinted in Pejovich and Klingaman (1975) deal with the politics of South Africa. The Pejovich-Klingaman collection also contains the best published bibliography of Hutt's work of which I am aware, though it obviously omits the work of the last decade of his life.

[4] He preferred to be called "Professor," and often corrected those who called him "Doctor." He never received that degree.

[5] "[N]ew definitions are irritating things," he wrote in 1939, "and the mere process of multiplying terms may appear to be both pretentious and barren" (Hutt 1977, p. 45).

[6] See *The Economics of the Colour Bar* (1964). Earlier

writings had resulted in the temporary withdrawal of his South African passport (Rothbard 1988, p. 33).

[7] When I cite "Hutt 1980" as evidence for what he said in 1930, I refer to those sections of the second edition of *The Theory of Collective Bargaining* that he left unchanged.

[8] He addressed some criticisms in 1977: "despite weighty arguments against antitrust which libertarian economists have been advancing in recent years, we adhere to the conclusion that a legal framework to create or protect incentives to substitute lower cost methods or preferred products is a necessary condition for market freedom to exist. This does not imply, however, that antitrust *in its present form* cannot be validly judged as more deleterious than nonintervention" (Hutt 1977, p. 223).

[9] The best discussion of "the metaphorical shibboleth of 'consumers' sovereignty'" is in Rothbard (1970, p. 560 *et passim*). On "the community" and "society" as the ultimate owners of scarce resources, see Ayn Rand's discussion of "the tribal premise" (Rand 1965, p. 7).

[10] As I recall some of our conversations during the mid 1970s, Hutt also supported legislation against libel and slander, largely out of sympathy for the victim. Since one's reputation consists of others' attitudes, it is doubtful that such legislation can find support in natural rights. See Rothbard 1978, pp. 95–96.

[11] The text has "even" rather than "ever," which apparently was a typographical error. It was corrected in Hutt 1979, p. 56.

[12] Hutt used the phrase "perfect price flexibility" as "the absence of money illusion" (Hutt 1979, p. 147), a meaning different from that below.

[13] Arnold Plant's review noted the importance of the book: "For there is a widespread and growing determination to seek out the idle resources in our economic system and to set them to work; a determination which is surely praiseworthy so long as we recognize idleness when we see it, and in our anxiety to abolish it do not confuse with it many other things which it is even more vital to preserve" (Plant 1940, p. 199).

[14] Hutt applied this concept of "pseudo-idleness" to cash balances, refuting those who associated the term "idle" with cash balances, in his respected "The Yield from Money Held" (Hutt 1956).

[15] I once prepared a flow chart, with boxes and circles and connecting arrows in the style of a computer programmer's

layout, of Hutt's definitional system. It seems to be of some help in keeping the linkages straight (Egger 1980, p. 17).

[16] There is a clear possibility, here, of what Leland Yeager has called "the 'Austrian vice'—disposing of substantive issues or reaching ostensibly substantive conclusions by mere verbal maneuvering" (Yeager 1988, p. 209).

[17] "Yet officials not only cannot have the necessary detailed awareness which market signals provide; but most important, they cannot be caused to lose property through error nor be rewarded by the acquisition of property through success" (Hutt 1979, p. 76; italics Hutt).

[18] I believe he would have called it mere "money-spending power." His Say's Law perspective led him to equate the *demanding* of one real good with the *supplying* of another (though usually, of course, with the intermediary of money).

[19] For a further discussion, substantially in the spirit of Hutt's work, of unemployed resources and the ability of macroeconomic policy to facilitate their use, see Egger (1992).

[20] For my own disagreement, see the discussion of antitrust and the voluntary withholding of labor services in the section on "Freedom, Government, and Market," of this paper. Hutt also considered the monetary authorities' failure to stabilize the level of prices to be a "defect" in most cases; see below.

[21] "In my judgment, however, the political obstacles were not insurmountable in Britain in 1931" (Hutt 1979, p. 45, n. 17). "*In my judgment* there is not the slightest doubt that, in the absence of 'the sabotage of British industry' which Beatrice Webb (in those words) so deplored in 1931, Britain could have sailed to prosperity under free market discipline and the pre-1914 gold parity" (Hutt 1979, p. 63; italics Hutt's).

[22] A "secondary" deflation is a decrease in the velocity of circulation (an increase in the demand to hold cash balances) that results from speculation that a fall in prices initiated by a "primary" deflation will continue. It is the downward analog of the "flight into real goods." This "secondary inflation," or sharp increase in velocity, is induced by the expectation of a continuing "primary" monetary inflation.

[23] I am not sure what Cowen's goal was. One can accept his piece as a partial explanation for the popularity of Keynesianism. Cowen has a thorough knowledge of Austrian literature and understanding of its method. It is difficult, therefore, to believe that he had even the slightest intention that his comment might serve as a refutation of the theory of the

laissez-faire remedy. Gene Smiley (1991) offered an extended critique of Cowen's argument, and in his rejoinder Cowen (1991, p. 115) noted that his "original essay was (deliberately) ambiguous on whether free-market economics had not explained the Depression satisfactorily or whether free-market economics *could* not explain the Depression." Since the second subsumes the first, Cowen believes *at least* that "free-market economics" has not yet "explained the Depression."

[24] Marget was one of the twenty-four signatories of the "Harris Lecture Telegram," in January 1932, urging President Hoover to adopt a number of easier-money policies. Others were Irving Fisher, Lloyd Mints, and Henry Simons. The Austrian economist Gottfried Haberler, who delivered one of the Harris lectures, was not among those who signed the telegram. See Wright (1932).

[25] This wording is repeated with "British" and capitalized "Great Depression"—in Hutt 1979, pp. 124–25.

[26] "It is important to explain that the term 'monetary policy,' as I use it, embraces 'fiscal policy'; for virtually the only difference between the two is that the latter has a certain political advantage—it puts what Keynesians sometimes call 'newly created money' (that is, an addition to the number of money units) initially into the hands of government instead of into the hands of . . . individual borrowers" (Hutt 1979, p. 184).

[27] See, for example, Hayek's observations in Shenoy (1972, pp. 109–10). Discussing one of the most entrenched cases of nominal rigidity, Britain of the 1920s, Hayek concluded:

> No doubt the situation then meant that full employment required that some real wages, perhaps those of many groups of workers, would have to be reduced from the position to which they had been raised by deflation. But nobody can say whether this would necessarily have meant a fall in the general level of *all* real wages. The adjustment of the structure of industry to the new condition adjustments in wages would have induced might have made this unnecessary. But, unfortunately, the *fashionable* macroeconomic emphasis on the *average* level of wages prevented this possibility from being seriously considered at the time.

Shenoy does not clearly date Hayek's comments but identifies them as from the draft of a lecture ("Competition as a Discovery

Procedure") delivered in 1968 and later reprinted in Hayek (1978).

[28] I note (without further comment) that there is disagreement, among economists usually identified with the Austrian school, about the nature of a proper monetary system—the dominant contenders are of a gold (or other commodity) standard, and "free banking."

[29] "[In *Keynesianism*] I regarded it [M, the nominal money supply] as a policy variable. I hope that the changes that I have made to parallel passages in the present text demonstrate this beyond all possible doubt" (Hutt 1979, p. 17).

[30] See Hutt (1936, p. 372) and (1979, pp. 148–49) for some comments. Considering the scope of this work, there is very little about the Austrian theory of the business cycle. He took a Wicksellian approach (or, more accurately, one of the several distinct Wicksellian approaches) to the "natural rate," identifying it with that rate of interest that corresponded to a stable general level of prices. If an increase or decrease in productivity produces a fall or rise in the price level, Hutt argues, unless there is a change in M "market interest . . . will diverge from the natural level" (Hutt 1979, p. 197).

[31] See Hutt (1979, pp. 63, 64, 272–73).

[32] The impact on the well-read Marget of Keynes's brash dismissal of virtually all of his scholarly predecessors is evident in the Prefaces to the two volumes of Marget's *The Theory of Prices* (1938, 1942).

[33] Hutt noted that Henry Hazlitt wrote, about the same time, that "I could not find in it a single important doctrine that was both true and original." This judgment was not unique to Hutt and Hazlitt. Colander (1981, p. 7) attributed this—without further citation—to Frank Knight: "Keynes said some things that were new and some things that were true. Unfortunately the things that were new weren't true and the things that were true weren't new."

[34] This chapter was dropped in the 1979 revision, because "the phenomenon plays so unimportant a role in Keynes's own theoretical system" (Hutt 1979, p. 7). Hutt's argument provided the inspiration for Peterson (1956), Rothbard (1970, pp. 759–64), and others.

[35] Hutt used this phrase occasionally; it appears, following a misinterpretation (by an American Keynesian) of Say's Law, in Hutt (1979, p. 154).

[36] "[C]ertain mercantilist, Keynes-like, fallacies . . . such

things as the confusion of saving-preference with liquidity-preference" (Hutt 1974, p. 7).

[37] In 1979, Keynes's position became that of "the intelligent novice" (Hutt 1979, p. 111).

A Note On Jean-Baptiste Say and Carl Menger Regarding Value

Kenneth K. Sanders

In this journal, an enlightening article appeared by Joseph T. Salerno (1988) concerning the neglect of the French liberal school in Anglo-American economics. The purpose of the present note is to reinforce a point contained therein. That point is: "The tradition [Smith-Say type approach to value theory] culminated in the work of F. B. W. Hermann who, starting from basic concepts formulated by Say, developed an approach to price theory 'emphasizing consumers' desires and incomes,' which came to serve later 'as the starting point of Menger's utility analysis'" (1988, p. 123).

Offered below, as evidence of an intellectual kinship on value between Say and Menger, is a citation from each. The quotation by Say is an excerpt from a letter that he wrote to Charles Robert Prinsep, the English translator of Say's *Treatise on Political Economy*. The letter is dated 1821.

> The costs of production are not the foundation of price; the foundation is found uniquely in the need that men experience for making use of the product. They consent to pay for making use of the product. They consent to pay the pains (the toils) or the price that the product costs, only by reason of the utility that it has. If this utility is great enough in order that the consumer consents to place on it the price which it costs, one makes it or else one acquires it from those who have made it; if its utility does not appear sufficient in order to be worth this expense, one does not create it, or one does not buy it if someone has had the folly of making it. I have need of a piece of cloth of a certain quality; this need determines me to employ 20 shillings for it; if its costs of production, or what you call *difficulty of attainment*, do not permit that

> one produce it at less than 25 shillings, I do not want it any more; I would serve myself of another cloth; the difficulty which accompanies the possession of the first does not contribute to raise the price; it is not then a necessary *element* of its value, and when you reproach me in twenty places of not having expressed it thus, you reproach me of not having sustained a doctrine essentially false. What seems to me incontestable is only that the utility of things is the cause of the price that we place on them; but that this price would not be known to fall below the costs of production. When we present a vase under a fountain, it is not the rim of the vase which holds the water of which it is filled, but it is the rim of the vase which prevents the liquid from falling below a certain height. (Say 1833, pp. 144–46)

Similar sentiments were expressed by Menger in his *Principles of Economics* in 1871.

> The value an economizing individual attributes to a good is equal to the importance of the particular satisfaction that depends on his command of the good. There is no necessary and direct connection between the value of a good and whether, or in what quantities, labor and other goods of higher order were applied to its production. A non-economic good (a quantity of timber in a virgin forest, for example) does not attain value for men if large quantities of labor or other economic goods were applied to its production. Whether a diamond was found accidentally or was obtained from a diamond pit with the employment of a thousand days of labor is completely irrelevant for its value. In general, no one in practical life asks for the history of the origin of a good in estimating its value, but considers solely the services that the good will render him and which he would have to forgo if he did not have it at his command. Goods on which much labor has been expended often have no value, while others, on which little or no labor was expended, have a very high value. Goods on which much labor was expended and others on

> which little or no labor was expended are often of equal value to economizing men. The quantities of labor or of other means of production applied to its production cannot, therefore, be the determining factor in the value of a good. Comparison of the value of a good with the value of the means of production employed in its production does, of course, show whether and to what extent its production, an act of *past* human activity, was appropriate or economic. But the quantities of goods employed in the production of a good have neither a necessary nor a directly determining influence on its value. (Menger 1976, pp. 146–47)

In ending, a warning (and a plea) must be extended to Austrian economists—there is a danger, not of complete neglect of the French liberal school, but of a lack of full use by Austrian economists of that tradition (Say in particular). Say presented a "mutual interdependence analysis of market processes" (Salerno 1988, p. 120) which is crystallized in his own Law of Markets. A *complete* understanding of Say's own Law of Markets, which is based on exchange and subjective value, would be of great theoretical and practical value to the Austrian school of economics. A reading is recommended of Say's *Cours Complet d'Économie Politique Pratique* (1828–1833). Also see Sanders (1990).

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The Harvard Plan for Drugs A Review of *Against Excess: Drug Policy for Results*. By Mark A. R. Kleiman. New York: Basic Books, 1992.

As the casualties from the war on drugs mount, the appeal for moderation in the title of Mark Kleiman's latest book on drug policy is most welcome. However, make no mistake about it, *this is no case for legalization*. Rather, the author makes a case for a technocratic solution to our drug-abuse and drug-policy problems. As the most recent and sophisticated defense of prohibition, it is worthwhile reading for everyone interested in drug policy. In view of the victory of the Clinton regime, *Against Excess* could serve as the blueprint of future drug policy.

This is the latest version of what I call the Harvard approach to drug policy—a hodge-podge of policies and programs designed to "rationalize" drug policy and to professionalize drug war management. While it has been said that Harvard hates America, I have found this simply not true. Harvard profits from America. What Harvard (not Kleiman) hates is that Americans still remember and still have some attachment to the Jeffersonian concept of self-government. It is this attachment and this concept that gets in Harvard's way of controlling and profiting from Americans through more government power and greater control over the individual's daily life. Not only is Kleiman's case for the drug war based on the lack of self government, his recommendations would create employment opportunities for yet another army of drug policy and law enforcement experts.

The basic Harvard argument on drug policy goes as follows: America is a liberal society; the liberal society relies on the self-government of individuals; drugs are different from other consumer goods in that drugs undermine the ability of drug takers to self govern and often create external harm for people who don't take drugs; therefore we need a special policy for drugs.

However, not only are drugs different from other consumer goods but drugs differ from one another with respect to their effects and the harm that can occur from their abuse. As a result, the Harvard approach requires that each drug or group of drugs have a specially designed policy in order to minimize the costs of both drug abuse and drug policy.

Kleiman proposes, or rather endorses, the neo-prohibition of alcohol and tobacco that is sweeping this nation. Higher taxes,

more regulations and restrictions, infringements on the right to free speech (advertising), and more government is the answer here. The benefits of alcohol, although widespread and well established by nearly a century of research and thousands of years of experience, are treated by Kleiman with skepticism—as if the latest research on the health benefits of alcohol was actually the first!

He accepts the neo-prohibitionist Gospel that the problems of fetal alcohol syndrome and second-hand smoke are highly significant when in the first case it has been blown out of proportion and in the second case it has yet to be scientifically verified. No doubt this proposal will be like sweet music (or fine red wine) to the army of bureaucrats, government researchers, and agencies that have been created and prospered from neo-prohibitionism.

Kleiman proposes to decriminalize marijuana. Marijuana would be highly taxed and regulated like alcohol and tobacco. This is the lone bone he throws to the supporters of legalization and will no doubt get some positive reception at *High Times* and N.O.R.M.L. I can sympathize with the author's insistence that public policy towards dangerous drugs convey a warning to consumers, but frankly the average purchaser of beer, wine, spirits, cigarettes, and freon knows that the average politician is collecting excessive excise taxes not out of concern for the consumers' health or environment, but out of concern for tax revenue. Nevertheless, this is a worthwhile section and I would also recommend Kleinmen's 1989 book on this subject, *Marijuana: Costs of Abuse, Costs of Control* (Westport, Conn.: Greenwood Press).

The author would continue the prohibition of narcotics, although attention would be shifted away from arrests and towards "inconveniencing" black-market participants. Drug-involved offenders would get free drug treatment and would be drug tested when on bail, probation, or parole. He also wants more government methadone maintenance, education, tighter controls on prescription drugs and federal control over treatment facilities. The clincher in Kleiman's program *against excess* is his recommendation for adding $20 billion to the war on drugs—a tripling of resources! Therefore, while Kleiman is preaching for moderation in drug policy he is actually promoting a massive shift in resources, power, and rights away from the people to the central government. In his recent address to the Drug Policy Foundation, Nobel Laureate economist Milton Friedman warned

us that the war on drugs was really a war against people by the government and that government is the problem. This important issue is completely neglected by Kleiman.

The conclusions and proposals in this book are based on the author's understanding of the perfectly rational consumer, an economic model that allows some economists to translate human action (however imperfectly) into mathematics. For Kleiman, it is this nearly perfect, rational consumer that is the prerequisite of the classical liberal society. The application of this model is both inappropriate and incorrect. First of all, the classical liberal society is not based on the methods of liberal welfare economists or on the presumption that all citizens are "rational" in all respects. Rather, it is based on the ideas of people who fought for freedom and the documents that represent their legacy such as the Magna Carta, the Declaration of Independence, the Articles of Confederation, and the Bill of Rights.

Second, the author does not fully understand the workings or limitations of the model. He notes that to have rational time preferences requires an individual to apply the same rate of discount to all decisions. His example of an irrational individual is one who is willing to lend money to a bank at an interest rate of 8 percent while at the same time borrowing money from the credit card company at an interest rate of 20 percent. Here he fails to realize that people also have liquidity preferences (the preference for cash on hand) as well as time preferences. An individual's liquidity preference will outweigh time preference under certain conditions, resulting in this very type of "irrational" action. The fact that individuals have limited information and have many different types of preferences (time, liquidity, leisure, risk, sex, etc.) makes it difficult, if not impossible, to describe any action as irrational in the typical economic sense.

One of my favorite pieces of "evidence" that Kleiman uses to support his contention that habit and addiction are stronger than the rational individual comes from a study based on personal interviews. A certain percentage of individuals regret having started various habits or for not quitting those habits. This evidence is pure after-the-factism (*post hoc* reasoning). Naturally, people will "regret" actions where most or all of the benefits have been received, but the costs have yet to be paid. Eating hot and spicy food, having unsafe sex, and buying on credit are just like smoking cigarettes or getting drunk—you get the benefits immediately, but you incur future costs. It is human nature that

we are willing (at the time of choice) to pay more later to get benefits now. If we are truly worried about time preferences and short time horizons, then the war on drugs is no answer. Prohibition destroys individual responsibility towards drugs and it is individual responsibility and maturity that instill a future orientation where drug abuse and other risky activities are avoided.

Kleiman has several remaining issues that undermine the viability of his policy recommendations. He is apparently worried that the costs drug abusers inflict on others would be greater under legalization, yet he seems unwilling to make users pay the costs themselves. In fact, he would offer *free* drug treatment and rehabilitation to all takers. (One might even suspect that the odds are good that Mr. Kleiman also supports some form of national health care system that would increase the "free rider" and "moral hazard" problems, thereby contributing to the irresponsible use of drugs.) He also bases his support for prohibition on the fact that the criminal justice system does not do a good enough job of preventing drug-related crime. Most informed observers, however, trace many of the problems in our criminal justice system to the burden and corruption placed on it by narcotics prohibition. Finally, I would note that even Mr. Kleiman realizes that only a small percentage of the population develops abuse problems with any specific drug and that we do not know what makes a given person have an abuse problem with a given drug. Why then does he recommend a nationwide policy that is oppressive, impersonal, and ineffective?

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Banning a Risky Product Cannot Improve Any Consumer's Welfare (Properly Understood), with Applications to FDA Testing Requirements

Robert Higgs

Neoclassical welfare economists maintain that consumers suffer when risky goods are supplied in an unregulated market. Consumers are said to possess imperfect information (Stiglitz 1988, pp. 78–79; Barr 1992, pp. 749–50) and limited ability to process complex information. Moreover, because information is presumed to be a public good, markets are *ipso facto* supposed to produce and disseminate a suboptimal amount of information (Stiglitz 1988, p. 79; Greer 1993, p. 416; Scherer 1993, pp. 98–99, 101). Under these conditions, neoclassical welfare economists maintain, consumers make choices that cause them to be worse off than they would be, say, if a regulator constrained their choices by banning very risky products from the market. The alleged market failure may stem from outright consumer ignorance, but it occurs even if consumers conduct what seems to them an optimal search for information. Given their inability to process complex information and the public-good problem with respect to information, inefficient risk bearing occurs (Greer 1993, pp. 413–14), as consumers bear more risk than they would choose to bear if they could process all information flawlessly and the public-good problem with respect to information creation and dissemination had been solved.

Some analysts have noted, however, that U.S. regulatory agencies such as the Food and Drug Administration, the Consumer Product Safety Commission, and the Department of Transportation, which enforce product bans, face incentives of the sort recognized in public choice theory that lead them to impose too much safety on consumers by denying some risky

products access to the market (Weimer 1982; Grabowski and Vernon 1983; Gieringer 1985, 1986; Kazman 1990; Higgs 1993). To analyze and remedy this government failure, neoclassical analysts propose the application of social cost-benefit analysis (Peltzman 1974; Grabowski and Vernon 1983, pp. 11–13). As Austrian economists appreciate well, however, social cost-benefit analysis cannot solve this (or any other) problem, because, *inter alia*, it rests on unjustifiable implicit aggregation of different individuals' utilities (Buchanan 1979, pp. 60–61, 151–52; Pasour 1988, pp. 114–16; Formaini 1990, pp. 39–65; Cordato 1992, pp. 57–60, 111). Other analysts have tried to sidestep this problem by conducting an appraisal in terms of lives lost and lives saved by various regulatory decisions (Gieringer 1985; Kazman 1990, pp. 47–50). I shall criticize both approaches. Neither gets at what economic analysis is supposed to be about: consumer welfare as evaluated by the consumers themselves and demonstrated by their actions.

Fundamental Ideas

Risk is an inescapable condition.[1] However much people may prefer to live in a world of complete certainty, they simply cannot do so. Just banishing risk, whether by regulation or otherwise, is not a feasible option. Whatever the institutional arrangements for distributing the gains and losses associated with risky actions, someone must bear the risks inherent in the choices made. Insurance can pool and spread risks. Government can tax or subsidize risk bearing. But at any time, given the knowledge and resources available to the members of society, any set of choices has associated with it certain irreducible risks. As Mises (1966, p. 105) put it, "The most that can be attained with regard to reality is probability."

Given that no action has a completely certain outcome and that the degree of risk attached to various actions differs, every consumer choice represents a selection in two dimensions: (a) selection of good X (itself a package of attributes) instead of alternative goods and (b) selection of a certain degree of risk instead of the alternative degrees of risk associated with goods not chosen. If people care about the degree of risk assumed, which I suppose they generally do, then each choice they make represents a deliberate selection from alternative two-dimensional objects, each being a good-*cum*-risk package. "The opportunity cost of the selection . . . is not the utility of outcomes

foregone but some foregone convolution of utility and probability" (Langlois 1982, p. 29 and Figure 3). People choose the most preferred package. Risk-averse consumers make tradeoffs, choosing something other than the good with the greatest expected benefit whenever a lower degree of risk associated with another good more than compensates them for the sacrifice of the greater expected benefit. Having different tastes for risk, people make such choices differently.[2] As Buchanan (1969, p. 50) has noted, "In the face of uncertainty, the evaluation of alternatives by the actual decision-taker may differ from the evaluations of any external observer."

Every market, then, involves allocations of both goods as such and risk-bearing. Economists, especially those in the field of finance, are familiar with the principle of market efficiency that takes account of both dimensions. Just as market exchange of existing goods can improve the subjective well-being of consumers with different preferences, so the opportunity to trade in the risk dimension of goods can improve the subjective well-being of consumers otherwise stuck with some fixed distribution of risk bearing.[3] In both cases, one presumes that a restriction of the field of choice can make some or all traders worse off but cannot make anybody better off. Yet neoclassical welfare economists continue to argue that market failures of the sort mentioned above may invalidate this general presumption in favor of unimpeded consumer choice of risk bearing.

Can Free Choice in Risk-Bearing Make Consumers Worse Off?

Suppose that, left to my own discretion, considering everything I know about the prospective benefits and risks of consuming good *X*, I choose to consume it. Now suppose that you know something about *X* that I do not, say, that it causes death once in every 100,000 cases in which someone consumes a certain amount of it daily for a year.[4] Can we say that preventing me from consuming the good improves my welfare?

We cannot. Two possible cases exist. In one case I would have chosen to consume *X* even had I known what you do about its risk, because I would have regarded the risk as worth taking in order to gain the expected benefits of consuming the good. In the other case I would have refrained from consuming *X* had I possessed your knowledge. But *banning the product is quite different from giving me new information*. By simply denying me

the option to consume *X*, you have definitely made me worse off, because you have removed my most preferred object of choice from the set of alternatives open to me. The utility that consumers maximize by their choices is *prospective and subjective* utility, not *ex post* utility and not utility as gauged by someone else in possession of different information (Rothbard 1977; Buchanan 1969, pp. 42–44; 1979, p. 59).

Of course, consumers sometimes conclude afterward that they regret a particular choice. Their regret only validates the fact that their choice was indeed risky, that an undesired contingency could occur. Consumers know this when they choose, and they make their choices in the light of that knowledge.[5] To deny them access to a particular risky option does not differ essentially from denying them access to goods of a particular taste, color, location, or any other dimension of choice. The perceived degree of risk is a dimension of goods considered by consumers when they make a (forward-looking) choice. To ban a good because a third party believes it to be in some sense riskier than the consumer believes it to be or because a third party values risk-avoidance more than the consumer does is simply to impose the third party's preferences on the actual consumer.

This remains the case even though the consumer would have chosen differently had he known what the third party knows. The neoclassical economist's lament with regard to "imperfect information" rests on an irrelevant and misleading standard of reference ("perfect information"). In reality, everyone without exception is necessarily ignorant of many things known by others. If consumer choice were to be permitted only to consumers whose knowledge, whether of risk or any other dimension, equaled or exceeded that of all other persons, then persons in general would not be permitted to choose anything for themselves, and no genuine market order could exist.

An arrangement in which only the most knowledgeable may choose raises problems of its own. Who will identify the most knowledgeable person for each dimension of choice, determining that John knows most about colors, Mary about textures, Carlos about risks? How will disputes about who has the most knowledge be resolved? Does everybody agree as to how risk ought to be conceptualized and measured? What will be done if even when Juanita is recognized as the most knowledgeable about the risk of getting a headache from using product *X*, some consumers seem to care a great deal about avoiding a headache

whereas others seem to care hardly at all?[6]

Even if someone knows the degree of risk better than I, important questions remain. Why don't I know? Is it because I am not concerned about this particular risk? Is it because I regard the expected cost of acquiring knowledge of the risk to be greater than the expected benefit of possessing such knowledge? Again, no one can possibly acquire more than a few sorts of knowledge. Should consumers who decide to direct their information search along other lines be forbidden to choose all goods that someone else knows to be riskier than the consumers in question do?

It is instructive to apply to the information question the general Misesian position as stated by Cordato (1992, pp. 19, 21). "Since there is no optimal outcome [in the market for information] apart from that which is generated by the actual interaction of market participants, there is no standard by which to argue that 'too little' [information] is being produced. . . . There is no way for the economist or policy maker to know the preferences of market participants [with respect to how informed they wish to be on various subjects] apart from what the individuals reveal them to be through action."[7]

Of course, it is trivially true that if I had the superior knowledge now possessed by others, I might be able to improve my *post-choice* evaluation of my welfare. But this is only to say that if people knew more, they could act successfully more often. So what? If altruists were to disseminate free information, some people might take the time to absorb that information and be glad they did. But again, so what? Are we to allow individuals to reveal their own valuations of information by the efforts they make to inform themselves, or are we to wait for more altruists to spread free information before allowing individuals to make their own choices in the market? How many more altruists are necessary? Who will decide when consumers are finally well enough informed to make decisions about their own consumption, and on what grounds will the decision rest?

The neoclassical argument that, because of the public-good character of information, people will be suboptimally informed cannot justify a policy of banning a risky product. The argument is general. How can it justify banning a new medicine but not a pork chop? If it be countered that the medicine is harder to understand and therefore consumers expose themselves to greater danger by consuming it at their own discretion, the counterclaim itself may be questioned. Who really knows the

dangers best? What justifies the assumption that one or a few federal bureaucrats actually know more about risks than consumers? Andy Rutten has written, “The real flaw in the traditional argument is that [neoclassical economists] invoke the information arguments so as to avoid the difficult (because impossible) work of showing that third parties really would make better decisions.”[8] If it be countered that some consumers are obviously dullards, then the question becomes: How can one justify a comprehensive ban rather than a ban applicable to the dullards alone? And if a discriminatory ban is to be enforced, who will classify each member of the population as either a dullard or not, and what will be the basis for making the discrimination?

Upon closer inspection, the neoclassical argument founded on the public-good character of information appears to depend on the implicit assumption that someone omnisciently looking down on a situation populated by imperfectly informed (i.e., real) actors can say what the “correct” degree of information is. Further, to justify government restrictions of the market, the neoclassical analyst must imagine that this heavenly onlooker counsels government employees, such as the drug reviewers at the FDA, as they make a decision about the date—the same for all persons, regardless of differences in their knowledge, health condition, or attitude toward risk bearing—when it will be “optimal” for everyone simultaneously to gain access to a new drug.

“Perfect information,” as it is commonly understood in neoclassical analysis, is not a condition that can exist in reality; nor is it an appropriate standard of reference in welfare economics.[9] We may choose only among feasible institutional arrangements for conducting our affairs. Comprehensively banning a beneficial but risky product from the market is the bluntest of policy instruments, the crudest sort of central planning. A free market in risky goods, on the other hand, permits the flexibility for individuals to adjust their choices to the differences in their conditions and preferences. Some consumers desire to become very well informed before taking the risk of using a new drug or device; others are willing to assume the risk quicker, either because they are more comfortable with risk bearing or because they stand to lose more, in their own subjective estimation, by waiting longer before using the product (Eraker and Sox 1981). In the free market each individual can adjust the mix of products consumed, the kind of risk borne and,

within limits, the degree of risk borne. Inasmuch as both the expected benefit of using a product and the burden of risk bearing are subjectively experienced and knowable only to the individual actor, and both vary from one person to another, it should be clear that no central planner can possibly improve on the outcome of a flexible market process by crushing it beneath the weight of a single comprehensive decision imposed on everybody from above.[10]

Finally, consider an alternative argument in support of banning a risky product. Suppose one could establish that, by banning product *X* from the market, life expectancy definitely would be increased. May we now conclude that the product should be banned? Of course not. A policy founded on such a decision rule implicitly enforces a one-dimensional utility function: only length of life has value. Clearly people do not have such limited preferences. Every day in various ways people choose to place their lives at risk in order to pursue other goals.[11]

If a risky new medicine may justifiably be banned, why shouldn't the government also ban portable ladders, cigarettes, red meat, fast cars, firearms, private aircraft, and countless other goods that consumers value and purchase, all of which may reduce the user's life expectancy? It might be countered that ordinary people can more accurately estimate the risks of using these goods than they can the risks of using a new medicine. But this need not be so.[12] Who really knows all the risks (or benefits of) of eating beef steak or drinking cow's milk? To give people the *option* to consume a risky good is not to insist that they consume it. People are free to consult expert sources of information and advice before making their choices, and the experts may know a great deal—far more than government regulators know—about the probabilities of adverse contingencies. Moreover, consumers may bear a much greater cost—which, because it is subjective, only they can know—by foregoing the use of the new medicine than by foregoing the use of a ladder.

In sum, banning a risky product, which often appeals to paternalists, is indefensible in relation to the maximization of consumers' utility properly understood. Banning a product *always* represents the imposition on consumers of someone else's preferences. (Every parent understands this proposition.) Banning a product cannot make anyone better off in terms of the properly construed objective analyzed in economic theory:

maximization of the *prospective and subjective* utility of responsible adult consumers.

Applications to FDA Testing Requirements

Since 1962 the Food and Drug Administration has permitted the marketing of a new drug only after the manufacturer has conducted to the agency's satisfaction an elaborate series of tests, including laboratory and animal experiments and three phases of clinical trials with human subjects, to establish that the drug is both safe when used as recommended and effective for its intended use (Grabowski and Vernon 1983, pp. 21–27; Weimer 1982, pp. 246–50; Gieringer 1986; Kazman 1990, pp. 37–40). As the regulations have become more extensive and the agency's requirements and standards more demanding and unpredictable, the time and expense of the necessary testing have grown. Presently the average drug takes about a decade to complete the approval process (DiMasi, Bryant, and Lasagna 1991, p. 480). While the product awaits approval, consumers who might have benefited from it suffer unnecessarily and, in many cases, die prematurely.

To evaluate this regulatory system, I construct a simple model based on the ideas expressed in the preceding section of the paper. The model provides a means of assessing several different aspects of the FDA's regulations. Each aspect can be seen as a restriction that cannot improve the well-being of any consumer but can—and no doubt does—diminish the well-being of some consumers.

The model shows the relations between two sources of marginal utility and the testing time t of a drug before it is permitted on the market. In general, the more demanding the FDA standards for establishing safety and efficacy, the longer the time required to satisfy the standards. Thus the duration of testing can serve as a measurable index of other dimensions of the required testing such as number of subjects, number of separate tests, number of variables monitored, total expense, and so forth (Weimer 1982, p. 256; Ward 1992, p. 49). Notice, however, that letting the duration of testing serve as a proxy for other dimensions of testing is only an expositional convenience. The basic logic of the model remains the same, even if one considers the problem piecemeal for each separate dimension of the testing.

Figure 1 is a diagram of the model. Note first that the

diagram pertains to a given individual, Person A, at a given date. Person A may relocate the functions at any time in accordance with changes in personal valuations. The units in which each individual measures the marginal utilities are known to that individual only. Interpersonal utility comparisons cannot be made. Nor can the utilities of different individuals be aggregated to arrive at a "social benefit function." There is no common unit for such aggregation; nor in reality is there an institutional arrangement by which a common unit might be revealed as it is, for example, by dollar prices in the neoclassical model of a perfectly competitive economy in general equilibrium with the dollar serving as a numeraire. By labeling the functions as marginal utility (*MU*) functions, I hope to forestall anyone's confusing these functions with the social marginal cost and social marginal benefit functions used by neoclassical analysts to analyze issues of this sort. The Austrian analysis offered here, unlike the corresponding neoclassical analysis, rests squarely on methodological individualism and subjectivism.

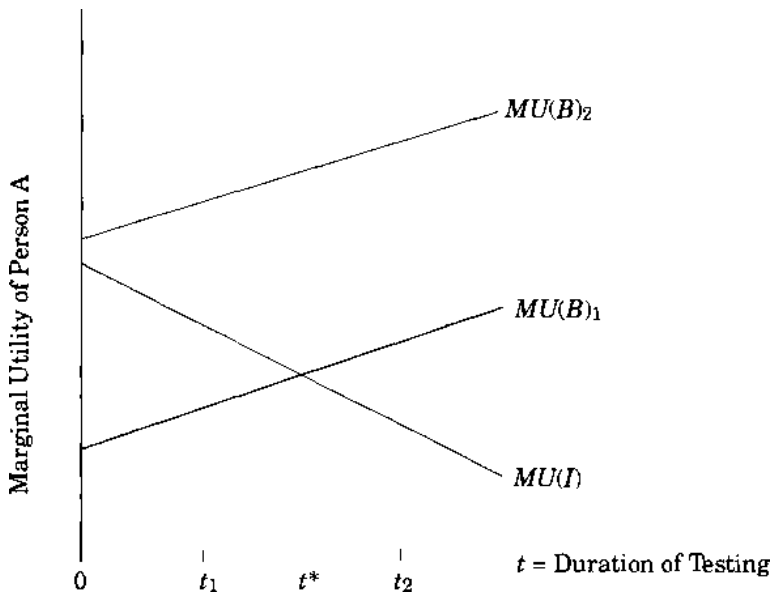

Figure 1. Determination of An Individual's Optimal Testing Duration

When testing first begins, the individual gains a definite marginal utility, denoted *MU*(*I*), from acquiring the information yielded by the test about the drug's efficacy, its toxicity, and other side effects. One is reassured to know, for example, that

the test subjects did not drop dead after taking the drug on day one. As the duration of the testing increases, then eventually if not immediately the marginal utility of the information gained from the last day of testing declines: $MU(I)$ is a decreasing function of t.[13] I assume nothing else about the shape of $MU(I)$; the linearity of the function as drawn in Figure 1 is arbitrary. One may also think of $MU(I)$ as depicting the *marginal benefit* of testing good X as evaluated by Person A on a given date.

On the other hand, the longer the duration of the premarket testing, the longer the consumer must forego the benefits of using good X, denoted $MU(B)$. While the foregone marginal utility of using good X may be low at an early stage of the testing, $MU(B)$ rises as t increases. The longer one waits to use X, the greater the likelihood that one's condition will worsen to the point that X will no longer suffice to alleviate the problem. Hence, $MU(B)$ is an increasing function of t. I assume nothing else about the shape of $MU(B)$; the linearity of the functions drawn in Figure 1 is arbitrary. One may also think of $MU(B)$ as depicting the *marginal cost* of testing good X as evaluated by Person A on a given date.[14]

In extreme cases people will soon die without access to a potentially life-saving drug. Such persons might be willing to use a new product immediately, notwithstanding the possible hazards associated with its use, which are initially quite uncertain because it has been tested only in the laboratory and with animals. A member of this desperate group would have an $MU(B)$ function like that labeled $MU(B)_2$ in Figure 1. At any positive test duration, the marginal utility of the benefits foregone because of another day's testing exceeds the marginal utility of the information gained by another day's testing. For these people, the optimal test duration is zero days.

For others, presumably the more typical cases, immediate use of X would be undesirable. Before the good has undergone any clinical testing at all, the marginal utility of the information gained from at least a few days of testing would be worth waiting for, because the marginal utility of benefits foregone would be relatively low for low values of t. As t increases, however, $MU(B)$ increases and, as shown by the function labeled $MU(B)_1$ in Figure 1, it eventually equals and then exceeds the value of $MU(I)$, which falls as t increases. The test duration t^* at which the two MU functions have equal values is the optimal one for Person A. This person will not voluntarily use X before it has

undergone a test period of this duration. However, this person would object should the premarket test period be prolonged by regulators beyond t^*, judging the foregone benefits associated with additional waiting to use X greater than the benefits of the additional information acquired.

Now, suppose that a regulatory agency effectively fixes the duration of premarket testing, as the FDA does.[15] Two cases are possible. One possibility, shown as duration t_1 in Figure 1, is that the regulator sets t below the individual's optimum, which is t^*. In that case the individual refrains from using the product, after it becomes available in the market, until it has undergone further testing. For all such persons, the regulation is not a binding constraint. These persons desire more testing than the regulator requires. The regulator's restriction brings them no benefit whatever.[16]

In the second case the regulator effectively fixes a test duration such as t_2 in the figure, which exceeds the individual's optimum. In this case individuals cannot consume the good as soon as they wish. Even though a consumer is willing to accept the risk of current use, the manufacturer is not permitted to sell the good. The well-being of the consumer is diminished. The consumer will gain some utility from further testing, but the utility sacrificed by additional waiting is greater than the utility gained from the information yielded by the additional testing.

We have then two possibilities. Either the regulator sets t equal to or less than an individual's optimum, in which case the regulation neither helps nor hurts the consumer; or the regulator sets t higher than an individual's optimum, in which case the regulation definitely reduces the well-being of the consumer. In short, marketing restrictions like those enforced by the FDA can make no one better off in the sense relevant in economic theory, but they can—and, as indicated by the many public complaints registered against the FDA, they clearly do—make some consumers worse off.[17] Overall, restrictions of this kind, which ban a product from the market, can only hurt consumers.[18]

Using the model, one can evaluate various aspects of the FDA's policies with regard to premarket testing requirements. Consider, for example, how an individual's optimal testing time t^* would change if it were discovered that a drug might be helpful in treating a second illness as well as the one for which it was originally intended.[19] In this case the $MU(B)$ function shifts upward, as Person A is foregoing not only the marginal utility of using drug X to treat condition 1 but also the marginal

utility of using X to treat condition 2. Because the $MU(I)$ function remains fixed, the intersection of the $MU(I)$ and the $MU(B)$ functions must now occur at a lower value of t. This conclusion is intuitively obvious: the more conditions a drug can alleviate, *ceteris paribus*, the sooner a consumer will desire access to it.

The FDA, however, regulates drugs so as to preclude this result. Even if solid scientific studies or extensive clinical uses indicate that a previously approved product will prove useful in alleviating an additional condition, the product may not be legally marketed for that indication.[20] The seller is required to conduct a new, separate set of tests complete with years of clinical trials, and to present the FDA with a New Drug Application based exclusively on the additional therapeutic claim (Weimer 1982, p. 279; Gieringer 1985, pp. 188–90; 1986, p. 10; Ward 1992, pp. 47–49). Consumers' welfare is diminished by the delay in the seller's advertising and marketing for the new use of a product already on the market.[21]

Consider next the effect on Person A's optimal U.S. testing time t^* if information on drug A's efficacy and side effects were to become available from tests or consumer experience in other countries. In this case the $MU(I)$ function would shift downward, as the marginal utility of any particular increment of U.S. testing now would have lower value to Person A. With the downward shift of $MU(I)$, given that the $MU(B)$ function remains fixed, the two functions intersect farther to the left and hence the value of t^* is lower than before. Again, this conclusion comports with intuition. Given that more information is already available for gauging the benefits and risks of using X, the consumer will be satisfied with a shorter period of premarket testing in the United States.

The FDA, however, usually does not alter its testing requirements in recognition of foreign testing or consumer experience. Even drugs that have been used abroad safely and beneficially, sometimes for decades, must undergo the same elaborate, expensive, and time-consuming testing as those never used or tested previously (Warden 1979, p. 30; Grabowski and Vernon 1983, p. 69; Gieringer 1986, pp. 11, 14).[22] Hence arises the notorious "drug lag," the delay between the introduction of drugs elsewhere and their marketing clearance by the FDA for sale in the United States (Temin 1980, pp. 141–51; Wardell and Lasagna, 1975; Anderson and Anderson 1987; Kazman 1990).[23] Whereas consumers want quicker access to drugs already tested and used abroad, the FDA as a rule does

nothing to accommodate this desire, thereby thwarting consumer satisfaction in still another way.

Consider now the effect on Person A's optimal testing time t^* if the new drug A is chemically related to an existing drug. Because the mechanism of action of the new product probably will be the same as that of the existing product in at least some respects, the consumer—advised by doctors and pharmacists who understand such things—will get less valuable new information and hence less utility from any particular increment of testing of the new product. The $MU(I)$ function will shift downward. Given that the $MU(B)$ function has not changed, the intersection of the $MU(B)$ and $MU(I)$ functions occurs farther to the left, that is, the value of t^* declines. Again intuition agrees. The consumer wants quicker access to the new product because the information yielded by additional testing is less valuable, given that the consumer expects certain "family resemblances" among products.

In such cases the FDA does not act in conformity with consumers' desires. The agency requires every new product to undergo the same testing procedures even though manufacturers have already established the efficacy and side effects of products of the same chemical family.[24] Consumers gain access to the new product no sooner than they would if it were completely novel in chemical composition and mechanism of action. Again consumers' satisfaction is thwarted.

Finally, consider how consumers would set t^* for a more threatening condition (e.g., cancer), relative to a less threatening one (e.g., the common cold). In this situation the $MU(B)$ function for the more threatening condition would lie above the $MU(B)$ for the less threatening condition, as each day's delay entails greater foregone benefit in the former case than in the latter. Higher $MU(B)$ functions intersect the $MU(I)$ function farther to the left, that is, at a lower value for t^*. *Ceteris paribus*, the consumer desires quicker access to the drug when it can alleviate a more serious condition.

The FDA does not accommodate this consumer preference. Whether the condition to be treated is life-threatening or simply unpleasant, the agency requires the same rigid, elaborate, and time-consuming testing. Once again, the regulators frustrate the desires of consumers by insisting that one size (testing procedure) fits all (drugs and patients), regardless of the urgency with which consumers desire access to certain drugs. In some cases this regulatory intransigence creates the absurd situation in which the FDA denies dying patients access to a new drug

because the manufacturer has not yet established beyond a reasonable doubt that the drug will not harm the users.[25]

Conclusion

Banning a product can never improve the well-being of consumers properly understood, that is, understood as individual consumers' prospective and subjective utility. This proposition remains valid even when risk is incorporated into the analysis. Risk of inefficacy or adverse side effects is simply another dimension of each good, like taste, size, or location, about which the consumer has preferences. Government restrictions have the same effect on consumer welfare regardless of the dimension of the good that is restricted; in this regard there is nothing special about risk.

A simple model incorporating this approach to thinking about risky consumers' goods allows us to establish that the FDA's regulation of drugs (and likewise its regulation of medical devices), both in general and in several of its specific forms, has detrimental effects on consumers' welfare. Nothing in economic theory, correctly understood, supports the imposition of product bans such as those enforced by the FDA through its testing requirements. The bans help no consumer; they definitely hurt some consumers.

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[1] I do not make the Knightian distinction between risk and uncertainty. If consumers lack an acceptable estimate of probabilities from an external source, they must necessarily proceed in terms of subjectively formulated probabilities. To deny this proposition is to suppose that consumers appreciate that outcomes are contingent but act as if they know nothing at all about the likelihood of possible outcomes. Compare Langlois (1982, pp. 9, 24, 31, 38–39).

[2] Eraker and Sox (1981) document the wide variation in attitudes toward risk-bearing of persons considering alternative medical therapies.

[3] "Efficient risk-taking will generally lead consumers to buy some risky products and to forego some safety precautions" (Viscusi 1991, p. 52).

[4] The marginal annual risk of death for a person drinking one saccharin-sweetened soda a day has been estimated to be 1 in 100,000; for someone eating four tablespoons of peanut butter a day, 1 in 25,000. See Greer (1993, p. 443).

[5] The three preceding sentences provide, I submit, a more satisfactory understanding of the Rothbardian position than the criticism advanced by Cordato (1992, p. 43), who objects that "Rothbard's conclusions [that free-market exchanges increase social utility] would only hold in an error-free world of perfect knowledge, where expectations necessarily coincide with results." See also Gordon (1993, pp. 103–5). Whether the product in question "ultimately" proves more or less toxic or more or less effective than consumers initially supposed has no bearing on the present analysis. Choices must be made on each day prior to that "ultimate" day. Should the attributes of the good ever become known fully by everybody, the present analysis no longer applies.

[6] Lave (1987, pp. 291–92) observes: "There is no single optimal decision for all people. The key issues in medical decision-making are the extent and quality of information about the outcomes of alternative interventions, the incentives influencing the ill person and those treating him, and the preferences of those involved. . . . [R]egulators usually make the most conservative (that is, worst case), plausible assumption in each situation."

[7] See also Buchanan (1979, pp. 61, 86–87; 1986, pp. 73–74).

[8] Rutten to the author, September 1993. Says Block (1992, p. 103), "to concede a monopoly on truth to a government agency acting as absolute scientific czar is fraught with peril far exceeding that of so-called snake-oil information governments so fear." Seidman (1977, p. 32) observes that "there are points in the [FDA's drug or medical device approval] process where single individuals can block approvals." What is the likelihood that each such individual will have more knowledge than anyone else?

[9] In the words of Cordato (1992, p. 116), "[Neoclassical] economists have . . . constructed a parallel universe that looks very little like the one with which we must cope, and assessed the efficiency problem that would exist in that universe."

[10] See Higgs (1993) for further contrasts of central planning and free markets as institutions for allocating the risks associated with the use (or nonuse) of medical goods. Also, excellent discussions may be found in Gieririger (1985, 1986) and Weimer (1982, pp. 263–77).

[11] For estimates of a number of commonly borne risks, see Wilson and Crouch (1987, p. 236) and Greer (1993, p. 443). Reporting on studies of "the implicit values of life reflected in decisions involving a broad range of risky product and job choices," Viscusi (1991, p. 51) notes that "the preferences with respect to risk follow patterns one would expect if these risks were the result of rational tradeoffs."

[12] Gieringer (1985, p. 201) notes that "the overwhelming number of drug accidents are due to old, not new, drugs."

[13] Wardell (1979, p. 33) notes that "current Phase III trials [the final stage of the clinical testing], although the most costly and time-consuming part of the clinical development process, add very little to what has already been learned about a drug's efficacy and toxicity by the end of Phase II." Conceivably, $MU(I)$ might increase in the early stage of testing, but eventually

it *must* decline, if only because the human lifespan is limited. In using the model, nothing is gained by considering an initially rising portion of the *MU*(*I*) function.

[14] I can imagine conditions such that *MU*(*B*) would not be a monotonic increasing function of *t*. For the model, all that matters is that if *MU*(*I*) ever intersects *MU*(*B*), it does so from above. Otherwise the model allows an absurdity: that a person favors early use of the product but, beyond a certain period of testing, prefers to wait for more testing.

[15] The agency does not set the test duration at the beginning of the process. Rather, it extends the period sequentially (and unpredictably) by advising the applicant from time to time that more information must be submitted or additional tests performed or simply by spending more time processing the initial application.

[16] Whether the manufacturer voluntarily performs the additional testing desired by Person A is a separate issue, which I presume depends on the seller's estimate of whether, given the expected incremental streams of cost and revenue, the additional testing will increase the present value of the firm.

[17] Some of the complaints, which have appeared recently in the press, are quoted in Higgs (1994).

[18] In a paper that is for the most part excellent, Weimer (1982, pp. 253–55) comes close to reaching this conclusion, but his analytical framework, cast in terms of hypothetical numerically comparable costs and benefits for different *groups*, can be, as he recognizes, only a means of illustrating a point, not a compelling demonstration. Weimer's analysis remains tied to the neoclassical concept of *social efficiency*. "So long as there were patients who would elect to take drug *X* after being informed of the benefits and risks associated with it, the regulatory decision not to allow marketing would be socially inefficient" (p. 255). In fact the decision is much worse than merely "socially inefficient": it harms some consumers and helps nobody.

[19] One frequently sees news items like those from the *Wall Street Journal* whose headlines announced "Study Finds Bristol-Myers Heart Drug Slows Down Kidney Disease in Diabetics" (November 11, 1993) and "Breast Cancer Drug Now Gaining Favor May Also Reduce Risk of Heart Disease" (September 1, 1993).

[20] For example, by the 1980s, on the basis of extensive research reported in the medical literature, physicians accepted

that patients with heart disease can reduce their risk of heart attack by taking a little aspirin each day, but the FDA forbade the sellers of aspirin to mention this benefit in their advertising to the public. See Pearson and Shaw (1993, pp. 12–15, 55–56, 81–84). Of course, no drug company will spend hundreds of millions of dollars to gain FDA approval to make a new claim when the product cannot be patented and many different companies can produce it.

[21] Physicians are legally free to use drugs for unapproved indications, but in practice they are reluctant to do so because of fears related to malpractice litigation. See Gieringer (1985, pp. 189–90; 1986, p. 17) and Nicholas Bachynsky, M.D., in the foreword of Anderson and Anderson (1987, pp. viii, xi–xii).

[22] In a few instances in recent years the FDA has taken into account foreign information, but these instances are quite exceptional.

[23] Anderson and Anderson (1987) catalogue 192 generic and 1,535 brand-name tested drugs available abroad but not approved for sale in the United States.

[24] The FDA has designated some products for consideration on a "fast track." See Grabowski and Vernon (1983, p. 27). But this distinction represents the attempt of a few bureaucrats to "pick winners." There is no reason to believe that they can do so more successfully than others can. See William Wardell (quoted in Kazman 1990, p. 45) for a case of egregious misclassification. In any event the agency's discrimination usually reflects judgments of life-saving potential rather than the priorities of consumers, who might, for example, place a relatively high value on expediting the availability of a drug to prevent a disfiguring disease such as severe acne or a painful and debilitating disease such as arthritis, even though the disease is not fatal. Moreover, the FDA's "fast-tracking" efforts, along with its attempt to speed the development of so-called "orphan drugs" and other exceptions, have not actually reduced the average time required for approval. See DiMasi, Bryant, and Lasagna (1991, p. 480), Weimer (1982, p. 249), Anderson and Anderson (1987, p. x), Siegel and Roberts (1991, pp. 71–73, 77), Ward (1992, p. 51), and Kazman (1992, p. 6).

[25] Drugs for the treatment of AIDS furnish the outstanding example, but by no means the only one. The AIDS story is told in dramatic fashion by Kwitny (1992).

Slavery, Profitability, and the Market Process

Mark Thornton

> The economic interpretations of the slave economies of the New World, as well as those social interpretations which adopt the neoclassical economic model but leave the economics out, assume everything they must prove. By retreating from the political economy from which their own methods derive, they ignore the extent to which the economic process permeates the society. They ignore, that is, the interaction between economics, narrowly defined, and the social relations of production on the one hand and state power on the other.[1]

Introduction

The most significant recent development in the study of economic history has been the investigation of the profitability of American slavery made famous in Robert Fogel and Stanley Engerman's *Time on the Cross*. Their book not only rewrote the history of antebellum slavery, it ushered in a completely new methodology of economic history: the cliometric revolution.[2] The book was also very well received by the media, something extremely rare in an academic study.[3]

Although often obscured in the technical terms of the scholarly debate, the profitability thesis provides an *ex post facto* justification for the Civil War, one of the most destructive and significant events in American history. From this justification perspective, slavery was profitable and would have continued indefinitely had it not been for the Civil War. Therefore, the Civil War is the primary motive for debating the profitability of slavery. Was slavery *the* cause of the Civil War? Would slavery have eventually collapsed without the war? Or would it have continued? As Gavin Wright, the noted economic historian, put it, "The knowledge that slavery would not have died out through

purely economic mechanisms may relate to the historical 'necessity' of the war."[4]

This relationship between the profitability of slavery and the Civil War underlies a more general relationship between the evils of slavery and the market. The literature clearly implies that slavery was an institution of the market and was sustained by market forces. In other words, the bounty of freedom was delivered on the backs of slaves. We are left with the apparent contradiction: "How is it that the arrangement that produced one of the great examples of a reasonably free market system also produced one of the most pernicious examples of a slave labor system?"[5]

The profitability thesis provides one resolution to this contradiction by accepting the Civil War as a political solution for a market-created problem of slavery. According to this revisionist thinking, America's bloodiest and most destructive conflict becomes the solution to the vexing problem of the morally intolerable institution of slavery.[6]

This paper offers an alternative explanation of the profitability of slavery that is consistent with traditional history and economic theory. This explanation, based on economic theory, finds the profitability thesis wrong where it is relevant and irrelevant where it is correct. This explanation disputes the implications that slavery and the slave trade are market phenomena and that slavery was "profitable." Slavery is found to be theoretically and historically a political institution incapable of existing in open-market competition.[7]

Slavery is demonstrated to have survived in the antebellum South, not because of the market, but because political forces prevented the typical decay and destruction of slavery experienced elsewhere. Modern slavery was abolished throughout the remainder of the Western world without deadly civil war among free people. Brazil, the largest slave state, became the last American country to abolish slavery in 1888. In ancient Greece and Rome, slavery was viewed as a temporary status as slaves were often encouraged to buy their freedom. These slave systems, like the indigenous African variety, could only be sustained through a continuous influx of new slaves obtained through war.

State slave codes restricted and prevented the market-based method of emancipation and therefore precluded a general emancipation of slaves. More precisely, two typical state statutes that significantly reduced the private costs of slavery are shown

to have been largely ignored, thereby propagating the impression of slavery's efficiency. Specifically, slave patrol statutes socialized the costs of policing slavery and recapturing runaway slaves by drafting non-slave-holders into slave patrols. Second, state statutes prohibited or effectively restricted private manumission of slaves. Combined with statutes that prevented immigration, required emigration, and restricted the movement and rights of free blacks, the slave codes significantly reduced the costs and risks of the slave owner by reducing and socializing the enforcement costs of slavery.[8]

Time on the Cross: The Profitability of Slavery

Who would have thought that the development of the computer would have a major impact on the historical interpretation of slavery? When Alfred Conrad and John Meyer (1958) published their article, "The Economics of Slavery in the Ante Bellum South," they did just that.[9] Not only had they *established* a new view of slavery, they had inaugurated the cliometric era in the study of economic history. Their computer-processed calculations have become the foundation for the revisionist view that slavery was a profitable institution of the market.[10]

Prior to Conrad and Meyer, the major body of professional opinion held that slavery could not compete against free labor. "On this point the eighteenth and early nineteenth-century authors on agricultural management were no less unanimous than the writers of ancient Rome on farm problems."[11] With reference to the antebellum period, U. B. Phillips found that slaveholding was "essentially burdensome," and that the system of slavery was an "obstacle to all progresss"[12] The world-wide collapse of slavery combined with economic opinion arid Southern experience to substantiate the traditional view that slave labor could not compete with free labor.[13]

The first major assault on the traditional view of slavery was Kenneth Stampp's *The Peculiar Institution* (1956), where Stampp argued that slavery was a profitable institution. The profitability of slavery was the testable proposition that Conrad and Meyer employed the computer to solve, sending methodological shockwaves through academia that ripple on to this day. The empirical literature questioning and confirming the view that slavery was profitable continues to grow.[14]

Stampp has also argued that slavery was a key factor in the

economic growth of the antebellum South. In 1961, Douglass North published his influential *The Economic Growth of the United States, 1790–1860*, where he concluded that King Cotton not only stimulated economic development in the South, but that it was the leading force in the expansion of the entire American economy. This two-pronged attack was so successful that, according to Ransom, the views of U. B. Phillips were "almost totally abandoned."[15]

The pinnacle of this revolution was the publication of Robert Fogel and Stanley Engerman's *Time On The Cross*. Based on an historical method that relies on "technical mathematical points" and the discovery of new data, this approach brought Southern antebellum slavery from a burdensome system to one that is now considered to have been *more* profitable and efficient than the free labor system of the North.

Fogel and Engerman's principal contribution was to find that slavery was highly profitable and 35 percent more efficient than northern family farming. They found that slavery also worked well in the cities. Indeed, as the antebellum South grew rapidly, slavery became ever more entrenched and slaveholders anticipated unprecedented prosperity on the eve of the Civil War. They found slaves to be hardworking, highly motivated, and more efficient than their white counterparts. They found that the general condition of the black family, specifically the extent of sexual exploitation, promiscuity, and slave breeding, to have been greatly exaggerated or untrue. In fact, the material conditions of the slave did not differ substantially from that of the free laborer. They estimated that the slave was allowed to keep 90 percent of lifetime productivity (only 10 percent exploitation) and that the use of whippings was largely kept to a minimum.

Fogel and Engerman's primary objective was to establish the "record of black achievement under adversity." Among the major historical contributions to slavery, Aptheker created the archetype of the rebel, Elkins created the Sambo, and Stampp created the timid rebel. Fogel and Engerman introduced a Horito Alger characterization of the antebellum slave, and while this is surely an exaggeration of fact, the notion of a productive, managerial, and incentive-responsive slave is an important addition to our understanding of the diversity of antebellum slavery. Unfortunately, this historical typecasting, as if one were casting for a movie, is both unnecessary and misleading from an economic perspective. A variety of slave types did of course exist

in the antebellum South, differing within and across plantations, states, and time.

Fogel and Engerman's overriding concern with demonstrating the record of black slave achievement tends to confuse the evaluation of the institution of slavery. In the antebellum debate, economic development was the primary economic concern while individual profitability was considered neither an effective defense nor an effective indictment of slavery. The economic argument against slavery emphasized the inferior nature of slave labor, restrictions on entrepreneurship, and the constraint that slavery placed on capital accumulation. Rather than refuting these accusations directly, the antebellum defenders of slavery, like Fogel and Engerman more than a century later, argued that slavery made the Negro more productive and that slaves were better cared for than free labor in the North.

Fogel and Engerman state that their "cliometric research has served to emphasize the deeply moral nature of the antislavery crusade."[16] However, rather than clarifying matters between ethics and economics, Fogel and Engerman have only added (unintentionally) to the condemnation of the market economy by *implication*. In their *Time*, it was the market economy that created and sustained slavery. While implications are difficult to prove, some indication may be gleaned from their chapter headings and subheadings, such as "The Level of Profits and the *Capitalist Character* of Slavery."[17] Based on his thorough empirical critique of Fogel and Engerman's *Time on the Cross*, Herbert Gutman describes their primary message as follows:

> The enslaved and their owners performed as actors and actresses in a drama written, directed, and produced by the "free market." That is the main theme of *Time on the Cross*, its essential message. [18]

Fogel and Engerman are clearer about the implication of their research on the crucial association between profitable slavery and the Civil War. They found that the percentage of free blacks in the population was shrinking and that there was nothing in the statistical record "to encourage the view that southern slavery was on the brink of its own dissolution."[19] The fact that slavery was profitable "punctured the claim that the Civil War was a tragic blunder." Slavery was not to expire due to economic causes but from "econocide . . . a political execution of

an immoral system at its peak of economic success, incited by men ablaze with moral fervor."[20]

A storm of protest developed in the wake of the publication of *Time on the Cross*. Virtually all of the prominent economic historians of the Civil War joined the debate with the combined assault leaving little of Fogel and Engerman's startling conclusions and extensions intact. Their most fundamental problem was said to be systematic errors and misuse of "fact." A second set of problems centered on the misspecification and limitations of models they developed. Even when properly specified, their models often failed to address the issues they wished to consider or failed to support the types of comparisons they proposed, such as comparing northern and southern farming. A third problem with *Time* was that the conclusions which the authors wished to make about the characteristics of the antebellum slave and slaver were not necessarily warranted on the basis of the evidence.[21]

It is beyond the scope of this paper to repeat all the previously published critiques of *Time*. The sheer number and detail of these critiques testify both to the importance and the extent of error in *Time*. Some introduction, however, is in order. Gutman, for example, concludes that on important matters of fact the conclusions of Fogel and Engerman are:

> based upon flawed assumptions about slave culture and slave society, based upon the misuse of important quantitative data, or derived from inferences and estimates that are the result of a misreading of conventional scholarship.[22]

The full import of the *Time* perspective is captured by noted social historian, Kenneth Stampp:

> Fogel and Engerman appear to be so preoccupied with the efficiency of slave agriculture that they disregard irrationality, friction, and conflict. As a result, two cliometricians who want to restore to blacks their true history in slavery have written a book which deprives them of their voice, their initiative, and their humanity. *Time on the Cross* replaces the untidy world of reality, in which masters and slaves, with their rational and irrational perceptions and their human passions, survived as best they could, with a model of a tidy,

rational world that never was.[23]

It is worth noting one particular example of factual error which indicates the types of problems in *Time*. Fogel and Engerman reported that according to 1860 census data there were no slave prostitutes in the city of Nashville, a "fact" that would support their claim that sexual exploitation by whites and promiscuity among blacks had been exaggerated. However, according to the same census, no occupation is listed for any slave in Nashville. The census simply did not list slave occupations.[24]

Time on the Cross which debuted to much fanfare and suffered the torture of a thousand cuts, is still remarkably well regarded in the profession. The authors may have silently (or partially) conceded most of their primary "corrections to the record," but *Time* remains the most generous evaluation of slavery and the authors remain standard bearers of both the cliometric methodological revolution and the profitability thesis, both of which continue to dominate the profession. However, with the dust settled, a primary target of this paper, the profitability thesis, can be examined in specific detail.[25]

Profitability and the Economic Theory of Slavery

Harold Woodman proposed a crucial methodological question when he asked, "Can the economics of slavery be discussed adequately in purely economic terms?"[26] On one hand, general agreement could be reached on the point that the question of slavery cannot be "decided" solely on the basis of economic considerations. On the other hand, it can be argued that slavery has never been discussed in purely economic terms.

The literature on the economics of slavery, for the most part, covers the history of an institution that had important economic consequences, rather than theoretically examining the institution from the strictly economic perspective. Economists of the cliometric bent and otherwise have largely followed the lead of historians. Their contribution has been to mechanize, test, and rewrite *history*.[27] Little remains of the profitability thesis except that investment in slaves might have earned a "normal rate of return." This is what an economic theorist would expect, but this is no defense of the viability of slavery. The contributions of Fogel and Engerman concerning slave treatment, productivity, etc. while overstated, can be usefully employed in

this and the following section to show how the market process *undermined* the institution of slavery.

First of all, it should be understood that slavery is a political institution that is based on the use of force, not contract.[28] Unfortunately, it is not obvious enough that there is a world of difference between making contracts involving the exchange of labor for money and the institution of slavery where the individual is completely and perpetually subordinated to an owner or master. Market exchanges are voluntary with wages accepted demonstrating the highest valued option. Likewise, it is illogical to argue that an individual can voluntarily sell oneself into slavery. Such an arrangement is not contractual because no matter how willing the "slave" is, individuals are incapable *in fact* of permanently and completely transferring their will and of preventing a change of mind in the future. Labor is alienable, the individual's will is not.[29]

While this logic is virtually indisputable it is also practically irrelevant because slavery is typically not of the "voluntary" type. Indentured servitude was popular as people fled the repressive conditions of Europe for the freedom and opportunity of the colonies. However, this market-based approach did not result in slavery in the accepted use of the term, and as Eric Williams described, "[t]his temporary service at the outset denoted no inferiority or degradation."[30] While this capitalistic approach did not result in slavery in fact, it did take on many appearances of slavery under the watchful eye of the Colonial Board which was established in 1661 under the leadership of the King's brother in order to "control" the trade.[31] Nonetheless, real slavery as we understand it is not a result of voluntary agreement.

The African slave trade is often thought to have been introduced by Europeans as an instrument of capitalistic aggression. However, Robin Law has clearly shown that slavery existed in Africa long before contact with European traders.[32] In fact, slavery was a central, indeed prominent, institution of African statecraft.

Prior to extensive European contact, Slave Coast states closely controlled their societies, including the emerging marketplace. The state, led by an hereditary "king," was based largely on militarism geared for the personal material gain of the leaders of the state. At the heart of their motivation, as exhibited even in their military tactics, was the taking of captives for sale as slaves.[33] The absolutism of this form of slavery was amply

demonstrated by their brutality and aggression against slaves. Some of the captives from the losing army would be tortured and decapitated with the head presented to the victorious army's king. Presumably, many of those tortured and killed had been injured during the battle and were therefore of little economic value to the victors.[34]

This form of absolute slavery was supplemented by the more general slavery of the populace. Indeed, the head of all inhabitants "belonged" to the king. This established the right of the king to all persons, places, and possessions throughout the kingdom. It was also the basis of the king's right to administer "justice."[35] Of course the normal measures of partial slavery, such as forced labor and taxation, were a normal part of Slave Coast life.[36]

Originally, it was believed that the militarism and slavery exhibited in the development of the Dahomian state was the result of European contact.[37] However, these traits existed in the predecessor states of Allada and Whydah. Militarism "clearly had its roots in the political culture of these earlier kingdoms." In fact, when the Portuguese began trading in Africa in the 1480s, they purchased slaves largely for resale within Africa.[38] Therefore, while the rise of the Dahomian state may in part be attributed to European contact and the expansion of the Atlantic slave trade, it would be incorrect to impart the total responsibility on the Europeans.[39]

The Atlantic slave trade, rather than being the result of a market process, developed under the confluence of two non-market factors. First of all, slavery already existed in the tribal African societies, which were the sources of slaves, before the arrival of Europeans. Second, the slave trade was not founded by private firms but was established by the colonial powers which instituted monopolies to exploit the indigenous slavery. The Dutch West India Company was chartered in 1621, and the Royal Company of Adventurers for the importation of Negroes was formed in 1662 (Royal African Company). These organizations were companies in name only. They were governmental military structures that had been organized on the basis of the profit motive to allow for independent decision making on locations in Africa which were too distant from Europe for direct control. Under these conditions, they were able to maximize their efficiency in generating slaves, revenues, and domestic influence. Therefore, while it is true that the "Negroes therefore were stolen in Africa to work lands stolen from the Indians," it would be

more accurate to place most of the blame for these crimes on the governments involved.[40]

One area of general confusion among economists and other social scientists concerns the origins of slavery in the American colonies. This confusion is amply exhibited by Thomas Sowell who states that, “It is not known when slavery began, because the first *captured* Africans became indentured servants, like an even larger number of contemporary whites.”[41] It should have been obvious to Sowell that slaves, not free labor, must be captured. The general confusion on this issue most likely arose from a debate about the dating of the origins of American slavery, a debate which was itself ignited over concern about modern race relations rather than the historical record. This “debate” might never have developed, if historians had depended more on the facts rather than on “interpretation.” There is no persuasive evidence that Negroes were ever treated like white servants upon their arrival in 1619 and 1640 when their status as slaves was first indicated in legal records.[42]

What is certain is that they were slaves *before* they arrived in America. Because slavery was not accounted for in British common law, it is logical that the legal system of slavery developed only after the importation of African slaves. The legal structure that attended the introduction of African slaves took time to develop, developing first in custom and then in law. “[I]n short slavery as Americans came to know it, was not accomplished overnight.”[43]

It was also accomplished with the help of various government programs and subsidies. For example, a British Parliamentary subsidy for American indigo was a primary reason for the proliferation of slavery in South Carolina. According to Rosengarten, it was not until England enacted a subsidy for Carolina indigo, in order to suppress indigo from the French West Indies, that the black slave population expanded and surpassed the white population in the sea island region. The subsidy was of course revoked during the American Revolution, but it left behind “a social structure and a labor routine,” that is, a slave-based economy.[44]

The basic analysis of slave versus free labor is well known. Contractual labor represents a symmetrical relationship that involves a coordination of individuals’ values, efforts, abilities, and resources. Slave labor is an asymmetrical relationship of domination and subordination. Slave labor can possibly be efficient for the slave owner, but cannot be viewed as such for

the slave or for society as a whole.[45]

In a market economy, all market participants perform economic calculations, but in the slave economy only the slave owners are allowed to perform such calculations. We therefore expect less calculation and entrepreneurship in the slave economy. Slave labor within a market economy does however have a special advantage over the socialist economy. Slaves in a market economy are viewed as a capital asset and typically put to their highest valued market use. Therefore, the slave is protected against depreciation and often targeted for appreciation. Slaves in a socialist economy, where there is no ownership, are typically viewed as a consumption item to be depreciated. The free-market orientation of the antebellum economy is a necessary prerequisite for the success of antebellum slavery and appreciation in the slave population and slave standards of living.[46]

The productivity of slaves is less than that of free labor because in slavery productivity is dissociated from economic reward. The competitive disadvantages of slave labor are revealed when the requirements of labor begin to exceed those of draft animals. One common means of improving productivity, especially popular among governments which own slaves, is the infliction of punishment for unsatisfactory results. This method has the disadvantage of increasing the costs of operations and the depreciation of the slaves, both in terms of productivity and market value.[47] According to Ludwig von Mises:

> experience has shown that these methods of unbridled brutalization render very unsatisfactory results. Even the crudest and dullest people achieve more when working of their own accord than under the fear of the whip.[48]

In order to stimulate “working of their own accord,” owners must offer incentives for productivity and loosen the bonds of slavery. The more productive and capital-using applications of labor require even greater incentives and freedoms if the master is to expect effective decision making and care of his physical capital from the slave. The self-interest of the master therefore can reduce the degree of slavery, resulting in a relationship that resembles family or friendship rather than a Nazi work camp.[49]

The market not only reduces the degree and burden of slavery, it can eliminate slavery altogether through manumission.

There are three basic categories of manumission.

> PURCHASE: A slave may accumulate wages and bonuses to purchase freedom. A free person, such as a friend or relative, may purchase the slave into freedom. This is more likely as free labor encroaches into slave labor regions and was often facilitated by low asking prices of slaveholders.
>
> WILL: A slaveholder may grant freedom to a slave in a last will and testament as a reward for years of faithful service or as religious penance.
>
> SPECIAL: A slaveholder may grant freedom to a slave for an extraordinary act, such as saving the owner's life. Slaveholders may grant freedom to commemorate special events such as a marriage or birth. Owners and government may grant freedom to slaves serving in defense of the country or for informing on riot or assassination attempts.

The rate of manumission could be expected to increase as competition from free labor reduced the expected returns from slavery. In other words, every manumission not only reduces slavery by one soul, it provides a further catalyst for the ultimate destruction of slavery: proximate free labor competition.

The issue of the viability or survivability of antebellum Southern slavery must take several special factors into account. First, free labor was relatively scarce in the cotton belt and generally served as a complement to slave labor instead of a competitive factor. Second, the weather and isolation of the cotton belt reduced the supply of free labor and made comparisons with more temperate and metropolitan regions difficult.[50]

Third, cotton as a product was simple to produce. As quality and complexity of production increases, slave labor becomes less competitive with free labor. Fourth, the extensive availability of fertile land associated with the opening of the old American Southwest was an added factor in slavery's relative success. Slaves have to be fed and clothed year round so that when they could not be easily kept productive (such as building and maintaining roads, chopping fire wood, lumber, and clearing forest land), free labor would tend to dominate.[51]

The complex issues involved in the choice between slavery

and free labor have been unfortunately simplified to the single issue of profit. Profit is a theoretical concept that explains the reallocation of resources in the market economy. The profitability-of-slavery thesis provides various calculations of estimated accounting profits of ante-bellum cotton plantations that employed both free and slave labor during the Industrial Revolution. We would certainly expect to see profitable firms during this tumultuous period. However, the important question is what factors account for this profitability. Was it the rapid increase in the demand for cotton, cheap fertile land, entrepreneurial management, slavery, or some combination of these factors? While this is a difficult issue to resolve precisely, the case for slave labor can be easily dismissed.[52]

A prime reason for the belief in the viability of slavery is that prices of slaves were higher at the end of the antebellum period than at the beginning. In fact, prices were higher than ever in the year before the Civil War, but these high prices were clearly the result of factors other than the inherent nature of slave labor. In fact, higher slave prices can be used to address one aspect of *Time on the Cross* that has apparently gone unchallenged, the authors' alleged disproof of the "natural limits thesis." This thesis claims that slavery would have disappeared under the pressure of scarce fertile land and urban expansion.[53]

Fogel and Engerman argue that slavery would not have disappeared without the Civil War. In fact, their estimates indicate that slave prices would have increased by more than 50 percent by 1890. While there are certainly many easily recognizable technical problems involved in such estimates, the most significant problem is that their estimate plays directly into the hands of the economic theory of slavery and the natural limits theorists. Higher slave prices would only serve to signal the market to discover substitutes for slave labor. Specifically, if the price of slaves did continue to rise, the market would have responded with substitutes such as free labor and labor saving equipment, such as mechanical agricultural devices to pick cotton.[54]

Slavery and the Political Process in the Antebellum South

Despite all the supposed natural advantages of slave labor in the Southern antebellum economy, slavery was fleeing from both the

competition of free labor and urbanization towards the isolated virgin lands of the Southwest. More importantly, the character of antebellum slavery had changed to reflect the "loosening of bonds." Slaves were given increasing responsibility, receiving professional training, and beginning to possess a good deal of independence and property within the plantation. Indeed, the slave was moving off the plantation, becoming in effect, free labor for hire. As Clement Eaton described:

> Behind the facade of increasing values of slave property there had been ceaselessly at work for at least two decades a slow and subtle erosion of the base of the institution. The disintegrating forces were strongest and most noticeable in the Upper South and in the towns and cities, where the growing practice of obtaining the service of slave labor by hire instead of by purchase was invisibly loosening the bonds of an archaic system.[55]

Despite the change in the character of slavery and the material economic improvement in antebellum slave life relative to other slave economies, very little progress had been made towards slavery's legal abolition. Although they were discussed, no emancipation or compensation schemes were seriously considered before the Civil War.[56] Things also appeared bleak in terms of market-based emancipation. As Fogel and Engerman noted, the percentage of the free black population in the South actually fell from 1830 to 1860. Kenneth Stampp also concluded that "[T]here was no evidence in 1860 that bondage was a 'decrepit institution tottering towards a decline'" and that there was no "reason to assume that masters would have found it economically desirable to emancipate their slaves in the foreseeable future."[57] "[T]he failure of voluntary emancipation" represents a divergence between economic theory and our understanding of the market economy on the one hand and real world results on the other.[58] In order to explain such puzzles, economists normally look at institutional rigidities, changes in relative scarcity, and most especially to government interventions in the economy.[59] The positive contribution of this paper is to *introduce* such an explanation: the role that certain slave codes played in the profitability and survival of slavery in the ante-bellum South. Despite the almost obvious implications of the slave codes, this form of government intervention has been ignored as an economic factor in the

profitability and perpetuation of slavery.[60] While the direction of this approach could have been derived from the work of Genovese,[61] and while Stampp certainly discussed the subject at length, it seems that Ludwig von Mises made the clearest statement of the connection between government intervention and the inability of markets to bring down antebellum slavery:

> The abolition of slavery and serfdom could not be effected by the free play of the market system, as political institutions had withdrawn the estates of the nobility and the plantations from the supremacy of the market.[62]

The political institutions that had withdrawn the plantation from the supremacy of the market were slave code statutes. While all the statutes had some impact, the statutes that required slave patrols and the laws that prohibited the manumission of slaves are of primary importance.

The patrol statutes required all white males to participate in slave patrol duty. The state required counties to establish regular patrols, and the counties in turn placed responsibility for organizing patrols on local judges and constables. These officials appointed a series of rotating patrol leaders who would be responsible for organizing and reporting on the activities of their patrols. Failure to participate in the patrols or to carry out organizing responsibilities would result in a series of escalating fines.

In order to prevent slaves from escaping, the patrol was responsible for patrolling the roads at night, monitoring the movement of blacks by checking their passes, and inspecting slave residences.[63] The compensation the patrollers received for being drafted into service was the violence they inflicted upon slaves and the money they received for capturing and selling unclaimed runaway slaves. Both sources of compensation served to increase the effectiveness of the patrols.[64]

Statutes were also established in the slave states that restricted or prohibited the right of an owner to manumit slaves. Restrictions precluded slaves from buying their freedom, owners from granting freedom, and owners from manumitting their slaves in a last will and testament. Sometimes these prohibitions were outright and binding while at other times the restrictions only served to complicate and frustrate the owners attempts to free slaves. Near the end of the antebellum period, an owner would have to transport slaves to free states, before

manumission, in order to ensure the freedom of their slaves.

While these statutes date back to the mid-eighteenth century, a significant relaxation occurred after the American Revolution. During this time, a large number of slaves were freed both in slave states as well as in states that had newly prohibited slavery. However, a growing free black population, an increased threat of slave revolts, and an increasingly vocal abolitionist movement led the Southern states to reenact severe slave code statutes relating to manumission and slave patrols.[65]

The obvious implications of these statutes was a reduced growth rate in the free black population. If owners could not manumit their slaves then the free black population could not grow as it otherwise might have. Slave patrols reduced the possibility of successful escape as well as the number of escape attempts.[66] The patrols therefore also contained the free black population by reducing escape attempts and the percentage of successful escapes.

Another obvious impact of the patrol statutes was the shift of the cost of guarding slaves and escape prevention from the slave owner onto the general population, as white males who owned no slaves were required to participate in the patrols. This socialization of police costs improved the profitability of slave ownership and reduced the supply of free labor by acting as a tax on it.[67]

The interaction effect of the two codes also affected the costs and profitability of slavery. If slaves could not be manumitted, then most blacks were slaves, thereby making the task of the slave patrols easier. The ability to detect and identify possible runaways was further strengthened by statutes that required all manumitted slaves to emigrate the state or county, prohibited the immigration of free blacks into a state, and placed fines or prohibited the existence of any free black in residence. Reduced likelihood of escape also increased the slaves' capital value.

The literature on the emancipation of American slaves pays little attention to the use of private manumission. There are several reasons for this neglect. First, in the decade prior to the Civil War only 20,000 slaves were officially manumitted out of a slave population of several million.[68] Second, it is rejected as a viable option for those who feel it is ethically preposterous that slaves and non-slave-holders should pay to break the bonds of involuntary servitude. There is also the question of time. Given the population growth of slaves, even an aggressive rate of private manumissions might never eliminate slavery entirely.

Other alternatives seem equally problematic. Support for general manumission at the state level was highly unlikely in states with large slave populations. Slaveholders were not only economically powerful, they were politically powerful in their legislatures in southern states. The market value of the entire slave population prior to the Civil War has been estimated at $2.7 billion, and plantation owners were convinced that slave labor was the only basis for large scale plantation agriculture in the semi-tropical south. While some have suggested that such a scheme would have been less costly than the Civil War, there was apparently no viable political mechanism to undertake such a massive transfer. Radical abolitionist sentiment was probably never more than a small minority of the population. The inability to solve the problem of slavery is generally attributed to the growth of sectionalism, party system breakdown, secession, and at least indirectly, the Civil War.

The low rate of private manumissions was not due to a lack of interest, but rather to prohibitions and restrictions on manumission in the slave states. In the absence of these government interventions, a higher rate of manumission could have dramatically increased the size of the free black population and decreased the size of the slave population. An increased free black population would have also undermined the effectiveness of slave hunters and slave patrols. The free black as free worker would have put increased pressure (geographically) on slavery. A decreased slave population and lower slave prices would have increased the likelihood of the enactment of general manumission, especially in the border states.

What we do know is that by 1830 most slave states had enacted extremely stringent laws to maintain slavery.[69] Most slaves were effectively confined on the plantation, most owners were prohibited from legally freeing their slaves, and life for the free black in the slave states was tenuous at best, illegal at worst. The complexity of the slave codes and slave economy makes it extremely difficult to determine what would have happened in the absence of these state codes. However, if slaveowners had really had the “absolute power and authority over his negro slaves” and their own lives, history would have been radically different.[70]

Free black population in the slave states increased throughout the antebellum period, with the greatest growth in the early decades and in the Upper South. As state statutes were enacted in the early 1800s against manumission and immigration

of free blacks, the rate of increase in the free black population slowed rapidly. In the final decades of the antebellum period the rate of increase in the free black population fell below the rate of increase of the slave population. These population figures clearly indicate the effect of laws against manumission.

Between the 1790 and 1800 census, the free black population of America increased by over 82 percent and in the South Atlantic states by over 97 percent. Between 1800 and 1810 the free black population in the South Atlantic states increased by over 61 percent. The total free population increased from 8.5 percent to almost 16 percent of the total black population between 1790 and 1810.[71] As states enacted statutes against manumission and immigration, and requiring slave patrols, the growth of the free black population decreased, fell below the rate of growth in the slave population, and was reduced to a trickle in the decade prior to the Civil War.[72]

If the free black population in the South Atlantic states had grown at the same rate between 1800 and 1860 as it did between 1790 and 1800, every slave in the South Atlantic states would have been freed twice by 1860, the equivalent of virtually every slave in the country.[73] Using the slower growth rate between 1790 and 1810 (88 percent), every slave in the region would have been freed 1.5 times. While this is clearly a hypothetical calculation, it does indicate that in the absence of slave codes the slave population would have been a small fraction of its actual size and in a range where general emancipations would have been possible.[74]

While economists (as economists) will no doubt appreciate the apparent cost-effectiveness of this approach, the notion of a gradual market-based emancipation will no doubt be morally objectionable to extreme abolitionists.[75] However, it must be remembered that historical experience of government-style emancipations, such as the Civil War, indicates that they are very costly, and in most cases, hardly effective in uplifting the former slaves. It was just this historical experience that led John Cairnes to suggest that gradual abolition of slavery was the most effective in promoting the interests of the slaves.[76]

Summary and Conclusion

This paper maintains that slavery is always and everywhere a political rather than a market institution. The historical record of slavery is examined for the suggested exceptions to this rule. This

study only confirms the logical necessity of government's role in slavery.

The profitability-of-slavery thesis is incorrect where relevant and irrelevant where correct. John Cairnes, who identified the problem in *The Slave Power*, found that antebellum slavery survived under "a democracy, an uncontrolled despotism, wielded by a compact oligarchy." The historical record strongly suggests that the state statutes that prohibited the private manumission of slaves and mandated slave patrols are the reasons why slavery survived as long as it did in the American South.

It could be argued that these codes were part of the "peculiar institution" and were unlikely to be repealed. However, failing properly to identify the causes of slavery's survival would be like complaining that "business" is doing little to alleviate high teenage unemployment without mentioning the minimum wage law. Not only is the "free market" exonerated from the evil of slavery, but the full blame for slavery and even the Civil War is placed back on government.

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[1] Fox-Genovese and Genovese (1983, pp. 35–36).

[2] Also known as the new economic history. Notable among the first cliometric works to appear are Conrad and Meyer (1958) and Fogel (1960).

[3] See David and Temin (1979, p. 213) and Stampp in (David et al., p. 7). Also see Gutman (1975, p. 3) for a description of Fogel and Engerman (1974) as the major methodological assault on traditional history by cliometricians.

[4] Wright (1973, p. 459). Wright gives several reasons for the importance of the profitability thesis, all of which are related to the necessity of the Civil War or are of a purely theoretical interest. When discussing Fogel and Engerman's contributions to the profitability thesis, David and Temin (1979, p. 213) caution that the "validity of these findings" are "of crucial importance within the larger structure of Fogel-Engerman's proposed reinterpretation of American Negro slavery."

[5] Ransom (1989, p. 43).

[6] Goldin (1973, p. 84) argues that the war was not a cost-effective emancipation mechanism. However, this justification was established after the fact (when costs tend to matter less) and may well be responsible for the substantial popularity of this revisionist view (also see Goldin and Lewis 1975).

[7] The market should be understood to be a separate and distinct phenomenon from government. "Capitalism" refers to the entire social system that consists of a market economy that is subjected to government intervention. Understanding the results of capitalism therefore requires that the effects of the market process be isolated from the effects of the political process.

[8] All of the great histories of antebellum slavery contain some discussion of the slave codes. In particular, the impact of the codes on the legal status and treatment of slaves is often discussed at some length. While Stampp (1956) recognized that the slave patrols "played a major role in the system of control" and Fogel and Engerman (1974) recognized that manumission laws had been erected, and others have shown that these laws often prevented slaveholders from granting freedom to slaves

(see for example Mathias 1973), the economic implications of these statues have largely been ignored.

[9] "We were explicitly testing the hypothesis that slavery in the South must have fallen before very long *because* it was unprofitable. . . . Our demonstration of that fact means that the imminent demise of slavery in the ante bellum South must be argued on grounds other than unprofitability from now on" (Conrad and Meyer 1983, p. 443).

[10] Butlin (1971) found early contributions such as Conrad and Meyer (1958) and Yasuba (1961) to be incorrect or misleading and their methods and conclusions often unfounded.

[11] Mises (1949, p. 632).

[12] Phillips (1929, p. 275).

[13] Slave labor was considered by many to be a major impediment for the Confederacy and its bid for independence. There were, however, some exceptions to the traditional view such as Lewis Cecil Gray (1933), Thomas Govan (1942), and Robert R. Russel (1938, 1941). Phillips, like many Progressive era academics, was racist and his views are widely considered to have biased his otherwise pathbreaking contributions.

[14] See for example Dowd (1958), Yasuba (1961), Evans (1962), Saraydar (1964), Sutch (1965), Foust and Swan (1970), Parker (1970), Aitken (1971), Butlin (1971), Wright (1973), Engerman and Genovese (1974), Fogel (1975), Vedder and Stockdale (1975), Fogel and Engerman (1977), David and Temin (1979), Wright (1979), Fogel and Engerman (1980), Bateman and Weiss (1981), Field (1988a, 1988b), Grabowski and Pasurka (1989), and Hofler and Folland (1991).

[15] Ransom (1989, p. 10).

[16] Fogel and Engerman (1980, p. 689).

[17] Fogel and Engerman (1974). Also see "*Markets* for Slaves," "*Profits* and Prospects," "The Economic Viability of Slavery," and "The Level of Profits and the *Capitalist Character* of Slavery" (my italics added). It should be stressed that these implications exist not just in Fogel and Engerman (1974) but in much of the literature on slavery.

[18] Gutman (1975, preface).

[19] Fogel and Engerman (1974, p. 37), as quoted from the final sentence of the introductory chapter. Just prior to this concluding statement the authors do mention stricter laws and restriction on voluntary manumission but fail to integrate them into their analysis or discussion of their conclusions.

[20] Fogel (1989, pp. 390, 410).

[21] See Gutman (1975) and David et al. (1976). Another frequently cited problem is the difficulty of following their arguments and checking their sources because of a failure to provide citations, complete references, as well as adding confusion to traditional arguments and the creation of "unacceptable" strawman arguments.

[22] Gutman (1975, p. 8).

[23] Stampp, in (David et al. 1976, p. 30).

[24] Gutman (1975, pp. 157–62), or Gutman in (David et al. 1976, pp. 153–54).

[25] See Haskell (1979), Schaefer and Schmitz (1979), David and Temin (1979), and Wright (1979).

[26] Woodman (1963, p. 324).

[27] A similar view was expressed about the New Economic History in general by Douglass North (1965): "Too much of it has been dull and unimaginative, and there seems to be a widespread conviction that econometric techniques, the computer, and running a few regressions can substitute for theory and imagination. . . . Too much of it shows that the writer clearly has no fundamental understanding of the way by which an economy operates. In particular, a lot of it shows that the role of prices in resource allocations and the implication of price behavior have completely eluded the writer."

[28] Thompson (1941, p. 60).

[29] The labor of an assembly line worker is physically given and received. The individual's will, however, can never be physically given or received. Slavery, therefore, can be distinguished from labor contracts and indentured servitude where a certain amount of labor is to be given in the exchange. The promise is neither perpetual nor does it involve inalienable components of the individual. See Rothbard (1982).

[30] Williams (1944, p. 10).

[31] Ibid., p. 14–18.

[32] Law (1991).

[33] One of the few descriptions of early African military tactics indicates that armies would battle to maximize the number of captives which could be sold as slaves.

[34] Tales of African savagery and cannibalism have often been exaggerated. According to Lovejoy (1983) though, cannibalism and human sacrifice were important components of indigenous African slavery. It should also be remembered that slavery and slaughter were also quite common in Europe at this time. Among the important economic distinctions between

western Africa and western Europe was the former's lack of written language and ocean travel.

[35] To help reinforce the perception of the king's monopoly on law and order all justice was absent after the death of a king and before his successor was named. In the absence of the king's system of "justice" many crimes, including murder, would take place during this period and go unpunished. This situation made the populace eager to have a new king.

[36] Law (1991).

[37] Davidson (1961).

[38] Law (1991, pp. 97, 116).

[39] Dahomey in the interior conquered Weme in 1716, Allada in 1724, and Whydah by 1728. Whydah was located on the coast where many of the trading centers were located. Allada was earlier the middleman state located between Whydah and the interior controlled by Dahomey. There was a constant dispute over control of the slave trade that would often degenerate into war and the intermittent disruption of the slave trade. The rise of Dahomey could therefore be viewed as a successful attempt to vertically and geographically integrate the slave trade in Africa.

[40] Williams (1944, p. 9).

[41] Sowell (1980, p. 317), emphasis added. Also see Ransom (1989, p. 41), for a very similar statement.

[42] Jordan (1962, p. 22).

[43] Ibid., pp. 18–29 and Sirmans (1962). There were of course free blacks in the Colonies due to manumission and escape.

[44] Rosengarten (1986, pp. 48–49).

[45] I can agree with Fenoaltea (1981, pp. 307–8), that the term "relative productivity" should replace efficiency with respect to slavery but not that the academic combatants should just drop the whole matter and say that "a good time was had by all." The reputation of economic theory and laissez-faire market capitalism was caught in the crossfire of this debate and has yet to be vindicated.

[46] I am grateful to Hans Hoppe for bringing this important point to my attention.

[47] Scars from whippings would indicate that a slave for sale was a past and potential runaway and thereby reduce the value of the slave. Canarella and Tomaske (1975, pp. 628–29) demonstrate that the market will minimize "the dual inefficiencies of sadism and paternalism by driving the high cost firms out of the industry." Unfortunately, they find that

“capitalist slavery places the slave in a tragic position.” Due to the limitations of their model they can find “no mechanism which as a result of market forces or the profit motive necessarily ameliorates the condition of the slave.”

[48] Mises (1949, p. 629).

[49] Ibid. Mises notes that the “master becomes intent upon rousing the slave’s zeal and loyalty through reasonable treatment. There develop between lord and drudge familiar relations which can properly be called friendship.” This type of relationship is infamous in the antebellum period. See for example England (1943, p. 42) as one example of the development of this type of relationship.

[50] A high percentage of the free labor of the slave states was located in the more temperate areas such as the mountainous and hilly regions and in the cities on the sea coast (away from the slave economy).

[51] The availability of low-cost fertile land was necessary not only for the reasons described by the “natural limits thesis,” but because of the limitations on year-round productive activities for slave labor versus their year-round requirements. In a sense, slave labor was able to exploit fertile land by trading their off-peak time for fertilized land. See Phillips (1918), Domar (1970), and Earle (1978) for an elaboration of this point.

[52] See for example David and Temin (1979) and Schaefer and Schmitz (1979). Despite the strong case against the profitability of slavery, it should not be forgotten that “profit” is based on the subjective evaluations of the individual and that an individual or group may “profit” from an activity that is otherwise debilitating socially or in the crude economic sense. This is particularly true of the culture that developed in Colonial Virginia based on the (now largely foreign) idea of hegemonic liberty (Fischer 1989). Indeed, Cairnes (1862, p. 87) found that “the real strength of slavery” was the desire on the part of the “mean whites” for political power and social status.

[53] Cairnes (1862) and Ramsdell (1929).

[54] Genovese (1961, pp. 58–59).

[55] Eaton (1960, p. 663).

[56] Goldin (1973).

[57] Stampp (1956, pp. 417–18). Like many others, Stampp bases his conclusions on evidence of high slave prices in the 1850s, dismissing any notion that the bubble would ever pop or that free labor “under any circumstances can be employed more cheaply than slave.”

[58] Stampp (1956, p. 235).

[59] Fogel and Engerman base their revision of the record on "technical mathematical points."

[60] Historians have raised the issues with respect to the status of the slave, as an aspect of the legal system and as a factor in modern racial problems. See for example, John Hope Franklin (1956), John Anthony Scott (1984), and Mark Tushnet (1981).

[61] Genovese (1961).

[62] Mises (1949, p. 632).

[63] All of these duties were carried out on a random basis so as to confuse and terrorize slaves and increase the effectiveness of the system.

[64] It might seem that the violence towards slaves would be viewed as counterproductive by the slaveowners. However, it did serve the purpose of instilling fear in the entire slave population and therefore it achieved its primary goal of reducing the number of escape attempts.

[65] See for example, Turtle (1991).

[66] Slaves were not only aware of the slave patrols, they were afraid of them. Slave patrols were largely unrestrained by law and would often beat, torture, and kill slaves even when the slaves had passes or were in their homes.

[67] The patrollers were fined for failure to carry out their assigned tasks. The draftee might be compensated for his efforts in some cases (i.e., selling unclaimed slaves) and some draftees were economic beneficiaries of the slave economy even when they did not own any slaves. It has also been noted by many authors that the poor whites had been duped (or threatened) into accepting the slave owners' racist ideology and therefore might have been more accepting of the system. Their low opportunity cost may also help explain their apparent willingness to go along with the patrol requirements. Cairnes, in fact, described the poor whites as near-savages who relied largely on hunting and gathering and were prone to irregular violence. Based on these attributes, the poor whites were ideally suited to patrol duty. See Yanochik (1993) for more detailed information on the slave patrols.

[68] Rogers (1918, p. 54).

[69] See Hurd (1862), and Cobb (1858).

[70] From John Locke's *Fundamental Constitutions of Carolina* as quoted in Sirmans (1962, p. 463). In other words, if slaveowners had had more personal control over their property,

more slaves would have been freed and the character of slavery would have been much different.

[71] This growth in part may be due to the window of opportunity between periods when it was illegal to manumit slaves.

[72] Rogers (1918, pp. 53–57). Only 1,467 slaves manumitted in 1850 and approximately 3,000 in 1860, with about 20,000 manumissions taking place during the decade.

[73] South Atlantic states here do not include Alabama, Mississippi, Tennessee, Louisiana, Arkansas, and Texas.

[74] The South Atlantic states include Delaware, Maryland, Virginia, North and South Carolina, and Georgia the only states with consistent data for the entire period.

[75] I denote extreme abolitionists as those who would go to any extreme (including war) to emancipate slaves in other nations. The term radical abolitionist is reserved for those abolitionists who detest slavery in its less obvious forms such as conscription, confiscation, eminent domain, and taxation.

[76] When speaking of the American case, Cairnes (1862, p. 170) suggested that the Union merely invade and eliminate slavery west of the Mississippi and leave slavery in the remaining states to strangle itself.

How is Fiat Money Possible? —or, The Devolution of Money and Credit

Hans-Hermann Hoppe

Fiat money is the term for a medium of exchange which is neither a commercial commodity, a consumer, or a producer good, nor title to any such commodity: i.e., irredeemable paper money. In contrast, *commodity* money refers to a medium of exchange which is either a commercial commodity or a title thereto.

There is no doubt that fiat money is *possible*. Its theoretical possibility was recognized long ago, and since 1971, when the last remnants of a former international gold (commodity) standard were abolished, all monies, everywhere, have in fact been nothing but irredeemable pieces of paper.

The question to be addressed in this paper is rather *how* is a fiat money possible? More specifically, can fiat money arise as the natural outcome of the interactions between self-interested individuals; or, is it possible to introduce it without violating either principles of justice or economic efficiency?

It will be argued that the answer to the latter question must be negative, and that no fiat money can ever arise "innocently" or "immaculately." The arguments advancing this thesis will be largely constructive and systematic. However, given the fact that the thesis has frequently been disputed, along the way various prominent counterarguments will be criticized. Specifically, the arguments of the *monetarists*, especially Irving Fisher and Milton Friedman, and of some *Austrian* "free bankers," especially Lawrence White and George Selgin, in ethical and/or economic support of either a total or a fractional fiat money will be refuted.

The Origin of Money

Man participates in an exchange economy (instead of remaining in self-sufficient isolation) insofar as he prefers more goods over

less and is capable of recognizing the higher productivity of a system of division of labor. The same narrow intelligence and self-interest is sufficient to explain the emergence of a—and ultimately only one—commodity money and a—and ultimately only one, world-wide—monetary economy.[1] Finding their markets as buyers and sellers of goods restricted to instances of double coincidence of wants (A wants what B has *and* B wants what A has), each person may still expand his own market and thus profit more fully from the advantages of extended division of labor if he is willing to accept not only directly useful goods in exchange, but also goods with a higher degree of marketability than those surrendered. For even if they have no direct use-value to an actor, the ownership of relatively more marketable goods implies by definition that such goods may in turn be more easily resold for other, directly useful goods in later exchanges, and hence that their owner has come closer to reaching an ultimate goal unattainable through direct exchange.

Motivated only by self-interest and based on the observation that directly traded goods possess different degrees of marketability, some individuals begin to demand specific goods not for their own sake but for the sake of employing them as a medium of exchange. By adding a new component to the pre-existing (barter) demand for these goods, their marketability is still further enhanced. Based on their perception of this fact, other market participants increasingly choose the same goods for their inventory of exchange media, as it is in their own interest to select such commodities as media of exchange that are *already* employed by others for the same purpose. Initially, a variety of goods may be in demand as common media of exchange. However, since a good is demanded as a medium of exchange—rather than for consumption or production purposes—in order to facilitate future purchases of directly serviceable goods (i.e., to help one buy more cheaply) and simultaneously widen one's market as a seller of directly useful goods and services (i.e., help one sell more dearly), the more widely a commodity is used as a medium of exchange, the better it will perform its function. Because each market participant naturally prefers the acquisition of a more marketable and, in the end, universally marketable medium of exchange to that of a less or non-universally marketable one, "there would be an inevitable tendency for the less marketable of the series of goods used as media of exchange to be one by one rejected until at last only a single commodity remained, which was universally employed as a medium of

exchange; in a word, money."[2]

With this, and historically with the establishment of the international gold standard in the course of the nineteenth century (until 1914), the end desired through any one market participant's demand for media of exchange is fully accomplished. With the prices of all consumer and capital goods expressed in terms of a single commodity, demand and supply can take effect on a world-wide scale, unrestricted by absences of double coincidence of wants. Because of its universal acceptability, accounting in terms of such money contains the most complete and accurate expression of any producer's opportunity costs. At the same time, with only one universal money in use—rather than several ones of limited acceptability—the market participants' expenditures (of directly serviceable goods) on holdings of only indirectly useful media of exchange are optimally economized; and with expenditures on indirectly useful goods so economized, real wealth, i.e., wealth in the form of stocks of producer and consumer goods, is optimized as well.

According to a long—Spanish-French-Austrian-American—tradition of monetary theory,[3] money's originary function—arising out of the existence of uncertainty—is that of a *medium of exchange*. Money *must* emerge as a *commodity* money because something can be demanded as a medium of exchange only if it has a pre-existing barter demand (indeed, it must have been a highly marketable barter commodity), and the competition between monies *qua* media of exchange inevitably leads to a tendency of converging toward a *single* money—as the most easily resold and readily accepted commodity.

In light of this, several popular notions of monetary theory are immediately revealed as misguided or fallacious.

What about the idea of a commodity reserve currency? Can bundles (baskets) of goods or titles thereto be money?[4] No, because bundles of different goods are by definition less easily saleable than the most easily saleable of its various components, and hence commodity baskets are uniquely *unsuited* to perform the function of a medium of exchange (and it thus is no mere accident that no historical examples for such money exist).

What about the—Friedmanite—idea of freely fluctuating "national monies" or of "optimal currency areas?"[5] It must be regarded as absurd, except as an intermediate step in the development of an inter-national money. Strictly speaking, a monetary system with rival monies of freely fluctuating exchange rates is still a system of partial barter, riddled with the problem

of requiring double coincidence of wants in order for exchanges to take place. The lasting existence of such a system is dysfunctional of the very purpose of money: of facilitating exchange (instead of making it more difficult) and of expanding one's market (rather than restricting it). There are no more "optimal"—local, regional, national or multi-national—monies or currency areas than there are "optimal trading areas." Instead, as long as more wealth is preferred to less and under conditions of uncertainty, just as the only "optimal" trading area is the whole world market, so the only "optimal" money is *one* money and the only "optimal" currency area the entire globe.

What about the idea, central to monetarist thought since Irving Fisher, that money is a "measure of value" and of the notion of monetary "stabilization?"[6] It represents a tangle of confusion and falsehood. First and foremost, while there exists a motive, a purpose for actors wanting to own media of exchange, no motive, purpose or need can be discovered for wanting to possess a measure of value. Action and exchange are expressive of *preferences*: each person values what he acquires more highly than what he surrenders—*not* of identity or equivalency. No one ever needs to *measure* value. It is easily explained why actors would want to use cardinal numbers—to count—and construct measurement instruments—to measure space, weight, mass and time: In a world of quantitative determinateness, i.e., in a world of scarcity, where things can render strictly limited effects only, counting and measuring are the prerequisite for successful action. But what imaginable technical or economic need could there possibly be for a measure of *value*?

Second, setting these difficulties aside for a moment and assuming that money indeed measures value (such that the money price paid for a good represents a cardinal measure of this good's value) in the same way as a ruler measures space, another insurmountable problem results. Then the question arises "what is the value of this measure of value?" Surely it must have value just as a ruler must have value, otherwise no one would want to own either one. Yet it would obviously be absurd to answer that the value of a unit of money—one dollar—is one. One what? Such a reply would be as nonsensical as answering a question concerning the value of a yardstick by saying "one yard." The value of a cardinal measure cannot be expressed in terms of this measure itself. Rather, *its* value must be expressed in ordinal terms: It is better to have cardinal numbers and measures of length or weight than merely to have ordinal measures at one's

disposal. Likewise it is better if, because of the existence of a medium of exchange, one is able to resort to cardinal numbers in one's cost-accounting, rather than having to rely solely on ordinal accounting procedures, as would be the case in a barter economy. But it is impossible to express in cardinal terms *how much* more valuable the former techniques are as compared with the latter. Only ordinal judgments are possible. It is precisely in this sense, then, that ordinal numbers—ranking, preferring—must be regarded as more fundamental than cardinal ones and value be considered an irreducibly subjective, non-quantifiable magnitude.

Moreover, if it were indeed the function of money to serve as a measure of value, one must wonder why the demand for such a thing should ever systematically exceed one per person. The demand for rulers, scales, and clocks, for instance, exceeds one per person only because of differences in location (handiness) or the possibility of their breaking or failing. Apart from this, at any given point in time and space, no one would want to hold more than one measurement instrument of homogeneous quality, because a *single* measurement instrument can render *all* possible measurement services. A second instrument of its kind would be useless.

Third, in any case, whatever the *characteristicum specificum* of money may be, money is a *good*. Yet if it is a good, then it falls under the law of marginal utility, and this law *contradicts* any notion of a stable- or constant-valued good. The law follows from the proposition that every actor, at any given point in time, acts in accordance with his subjective preference scale and chooses to do what he expects—rightly or wrongly—to satisfy him more rather than less, and that in so doing he must invariably employ quantitatively definite—limited—units of qualitatively distinct goods as means and thus, by implication, must be capable of recognizing unit-additions and -subtractions to and from his supply of means. From this incontestably true proposition it follows (1), that an actor always prefers a larger supply of a good over a smaller one, i.e., he ranks the marginal utility of a larger sized unit of a good higher than that of a smaller sized unit of the same good; and (2), that any increment to the supply of a good by an additional unit—of any unit-size that an actor considers and distinguishes as relevant—will be ranked lower (valued less) than any same-sized unit of this good *already* in one's possession, as it can only be employed as a means for the removal of an uneasiness deemed less urgent than the least

urgent one *up-to-now* satisfied by the same sized unit of this good, i.e., the marginal utility of a given-sized unit of a good decreases (increases) as the supply of such units increases (decreases). Each change in the supply of a good, then, leads to a change in this good's marginal utility. Any change in the supply of a good A, as perceived by an actor X, leads to X's re-evaluation of A. X attaches a *different* value-rank to A now. Hence, the search for a stable or constant-valued good is obviously illusory from the outset, on a par with wanting to square the circle, for every action involves exchange, and every exchange alters the supply of some good. It either results in a diminution of the supply of a good (as in pure consumption), or it leads to a diminution of one and an incrementation of another (as in production or interpersonal exchange). In either case, as supplies are changed in the course of any action, so are the values of the goods involved. To act is to purposefully *alter* the value of goods. Hence, a stable-valued good—money or anything else—must be considered a constructive or praxeological impossibility.

Finally, as regards the idea of a money—a dollar—of constant purchasing power, there is first the fundamental problem that the purchasing power of money *cannot be measured* and that the construction of price indices—any index—is scientifically arbitrary, i.e., as good or bad as any other. (What goods are to be included? What relative weight should be attached to each of them? What about the problem that individual actors value the same things differently and are concerned about different commodity baskets, or that the same individual evaluates the same basket differently at different times? What is one to do with changes in the quality of goods or with entirely new products?).[7] Moreover, what is so great about "stable" purchasing power anyway (however that term may be arbitrarily defined)? To be sure, it is obviously preferable to have a "stable" money rather than an "inflationary" one. Yet surely a money whose purchasing power per unit *increased* —"deflationary" money—would be preferable to a "stable" one.

What about the thesis that in the absence of any legal restrictions money—non-interest bearing cash—would be completely replaced by interest bearing securities?[8] Such displacement is conceivable only in equilibrium, where there is no uncertainty and hence no one could gain any satisfaction from being prepared for future contingencies as these are per assumption ruled out of existence. Under the omnipresent human condition of uncertainty, however, even if all legal restrictions on

free entry were removed, a demand for non-interest bearing cash —as distinct from a demand for equity or debt claims (stocks, bonds or mutual fund shares)—would necessarily remain in effect. For whatever the specific nature of these claims may be, they represent titles to *producer* goods, otherwise they *cannot* yield interest. Yet even the most easily convertible production factor must be less saleable than the most saleable one of its final products, and hence, even the most liquid security can never perform the same service of preparing its owner for future contingencies as can be provided by the most marketable *final* non-interest bearing product: money. All of this could be different only if it were assumed—as Wallace in accordance with the Chicago school's egalitarian predispositions tacitly does—that all goods are equally marketable. Then, by definition there is no difference between the salability of cash and securities. However, then all goods must be assumed to be identical to each other, and if this were the case neither division of labor nor markets would exist.

From Commodity Money to Fiat Money: The Devolution of Money

If money must arise as a commodity money, how can it become fiat money? Via the development of money substitutes (paper titles to commodity money)—but only fraudulently and only at the price of economic inefficiencies.

Under a commodity money standard such as the gold standard until 1914, money "circulated" on the one hand in the form of standardized bars of bullion and gold coins of various denominations trading against each other at essentially fixed ratios according to their weight and fineness. On the other hand, to economize on the cost of storing (safekeeping) and transacting (clearing) money, in a development similar to that of transferable property titles—including stock and bond certificates —as means of facilitating the spatial and temporal exchange of *non*-money goods, side by side with money proper also gold certificates—property titles (claims) to specified amounts of gold deposited at specified institutions (banks)—served as a medium of exchange. This coexistence of money proper (gold) and money substitutes (claims to money) affects neither the total supply of money—for any certificate put into circulation an equivalent amount of gold is taken out of circulation (deposited)—nor the interpersonal income and wealth distribution. Yet without a

doubt the coexistence of money *and* money substitutes and the possibility of holding money in either form and in variable combinations *of* such forms constitutes an added convenience to individual market participants. This is how intrinsically worthless pieces of paper can acquire purchasing power. If and insofar as they represent an unconditional claim to money and if and insofar as no doubt exists that they are valid and may indeed be redeemed at any time, paper tickets are bought and sold *as if* they were genuine money—they are traded against money at par. Once they have thus acquired purchasing power and are *then* deprived of their character as claims to money (by somehow suspending redeemability), they may *continue* functioning as money. As Mises writes: "Before an economic good begins to function as money it must already possess exchange-value based on some other cause than its monetary function. But money that already functions as such may remain valuable even when the original source of its exchange-value has ceased to exist."[9]

However, would self-interested individuals *want* to deprive paper tickets of their character as titles to money? Would they *want* to suspend redeemability and adopt intrinsically worthless pieces of paper as money? Paper money champions like Milton Friedman claim this to be the case, and they typically cite a savings-motive as the reason for the substitution of fiat for commodity money: A gold standard involves social waste in requiring the mining and minting of gold. Considerable resources have to be devoted to the production of money.[10] With essentially costless paper money instead of gold, such waste would disappear, and resources would be freed up for the production of directly useful producer or consumer goods. It is thus a fiat money's higher economic efficiency which explains the present world's universal abandonment of commodity money! But is it so? Is the triumph of fiat money indeed the outcome of some innocuous saving? Is it even conceivable that it could be? Can self-interested individuals really *want* to save as fiat money champions assume that they do?

Somewhat closer scrutiny reveals that this is impossible, and that the institution of fiat money requires the assumption of a very different—not innocuous but sinister—motive: Assume a monetary economy with (at least) one bank and money proper ("outside money" in modern jargon) as well as money substitutes ("inside money") in circulation. If market participants indeed wanted to save on the resource costs of a commodity money (with the ultimate goal of demonetizing gold and monetizing

paper), one would expect that first—as an approximation to this goal—they would want to give up using any outside money (gold). All transactions would have to be carried out with inside money (paper), and all outside money would have to be deposited in a bank and thus taken out of circulation entirely. (Otherwise, as long as genuine money was still in circulation, those individuals making use of gold coins would demonstrate unmistakably—through their very actions—that they did *not* want to save on the associated resource costs.)

But is it possible that money substitutes can thus outcompete—and displace—genuine money as a medium of exchange? No; even many hard money theoreticians have been too quick to admit such a possibility. The reason is that money substitutes are *substitutes* and have one permanent and decisive disadvantage as compared to money proper. Paper notes (claims to money) are redeemable at par only to the extent that a deposit fee has been paid to the depositing institution. Providing safeguarding and clearing services is a costly business, and a deposit fee is the price paid for guarded money. If paper notes are presented for redemption after the date up to which safeguarding fees were paid by the original or previous depositor, the depositing institution would have to impose a redemption charge and such notes would then trade at a discount against genuine money. The disadvantage of money substitutes is that they must be continuously re-deposited and re-issued in order to maintain their character as money—their salability at par—and thus that they function as money only temporarily and discontinuously. Only money proper (gold coins) is permanently suited to perform the function as a medium of exchange. Accordingly, far from inside money ever displacing outside money, the use of money substitutes should be expected to be forever severely limited—restricted essentially to the transaction of very large sums of money and the dealings between regular commercial traders—while the overwhelming bulk of the population would employ money proper for most of their purchases or sales, thus demonstrating their preference for *not* wanting to save in the way fancied by Friedman.[11]

Moreover, even if one assumed for the sake of argument that only inside money is in circulation while all genuine money is stored in a bank, the difficulties for fiat money proponents do not end here. To be sure, in their view matters appear simple enough: All commodity money sits idle in the bank. Wouldn't it be more efficient if all of this idle gold were used instead for

purposes of consumption or production—for dentistry or jewelry—while the function of a medium of exchange were assumed by a less expensive—indeed, practically costless—fiat money? Not at all.

First, the envisioned demonetization of gold certainly cannot mean that a bank thereby assumes ownership of the entire money stock, while the public gets to keep the notes. No one except the bankowner would agree to that! No one would want *such* savings. In fact, this would not be savings at all but an expropriation of the public by and to the sole advantage of the bank. No one could possibly *want* to be expropriated by somebody else. (Yet the expropriation of privately owned commodity money through governments and their central banks is the only method by which commodity money has ever been replaced by fiat money.) Instead, each depositor would want to retain ownership of his deposits and get his gold back.

Then, however, an insurmountable problem arises: Regardless who—the bank or the public—now owns the notes, they represent nothing but irredeemable paper. Formerly, the cost associated with the production of such paper was by no means only that of printing paper tickets, but more importantly that of attracting gold depositors through the provision of safeguarding and clearing services. Now, with irredeemable paper, there is nothing worth guarding anymore. The cost of money production falls close to zero, to mere printing costs. Previously, with paper representing claims to gold, the notes had acquired purchasing power. But how can the bank or the public sell them, i.e., get anyone to accept them, now? Would they be bought and sold for non-money goods at the formerly established exchange ratios? Obviously not. At least not as long as no legal barriers to entry into the note-production business existed; for under competitive conditions, of free entry, if the (non-money) price paid for paper notes exceeded their production costs, the production of notes would immediately be expanded to the point at which the price of money approached its cost of production. The result would be hyperinflation. No one would accept paper money anymore, and a flight into *real values* would set in. The monetary economy would break down completely and society would revert back to a primitive, highly inefficient barter economy. Out of barter then, once again a new (most likely a gold) commodity money would emerge (and the note producers once again, so as to gain acceptability for their notes, would begin backing them by this money). What a way of achieving

savings!

If one is to succeed in replacing commodity money by fiat money, then, an additional requirement must be fulfilled: Free entry into the note-production business must be restricted, and a money *monopoly* must be established. A single paper money producer is also capable of causing hyperinflation and a monetary breakdown. However, insofar as he is legally shielded from competition, a monopolist can safely and knowingly restrict the production of his notes and thus assure that they retain their purchasing power. He then presumably would assume the task of *redeeming* old notes at par for new ones, as well as that of again providing safeguarding and clearing services in accepting note deposits in exchange for his issuance of substitutes of notes—demand deposit accounts and checkbook money—against a depositing fee.

Regarding this scenario, several related questions arise. Formerly, with commodity money every person was permitted to enter the gold mining and coining business freely—in accordance with the assumption of self-interested, wealth-maximizing actors. In contrast, in order for Friedman's "flat money dividend" to come into existence, competition in the field of money production would have to be outlawed and a monopoly erected. Yet how can the existence of a legal monopoly be reconciled with the assumption of self-interest? Is it conceivable that self-interested actors could agree on establishing a flat money monopoly in the same way as they can naturally agree on participating in the division of labor and on using one and the same commodity as a medium of exchange? If not, does this not demonstrate that the cost associated with such a monopoly must be considered higher than all attending resource cost savings?

To raise these questions is to answer them. Monopoly and the pursuit of self-interest are incompatible. To be sure, a motive why someone might want to become the money monopolist exists. After all, by not having to store, guard and redeem a precious commodity, the production costs are dramatically reduced and the monopolist could thus reap an extra profit; by being legally protected from all future competition, this monopoly profit would immediately become "capitalized," i.e., reflected permanently in an upward valuation of his assets, and on top of his inflated asset values he then would be guaranteed a normal rate of (interest) return. Yet to say that such an arrangement would be advantageous to the monopolist is not to say that it would be advantageous to anybody else, and hence

that it could arise naturally. In fact, there is no motive for anyone wanting *anyone but himself* to be this monopolist, and accordingly no agreement on the selection of any particular monopolist would be possible. The position of a monopolist can only be arrogated—enforced against the will of all excluded non-monopolists. By definition, a monopoly creates a distinction between two classes of individuals of different legal quality: between those—privileged—individuals who are permitted to produce money, and those—subordinate—ones who, to the exclusive advantage of the former, are prohibited from doing the same. Such an institution *cannot* be supported in the same voluntary way as the institutions of the division of labor and a commodity money. It is *not*, as they are, the "natural" result of mutually advantageous interactions, but that of an unilaterally advantageous act of expropriation (abrogation). Accordingly, instead of relying for its continued existence on voluntary support and cooperation, a monopoly requires the threat of physical violence.[12]

Moreover, the incompatibility of self-interest and monopoly does not end once the monopoly has been established but continues as long as the monopoly remains in operation. It cannot but operate inefficiently and at the expense of the excluded non-monopolists. First, under a regime of free competition (free entry), every single producer is under constant pressure to produce whatever he produces at minimum costs, for if he does *not* do so, he invites the risk of being outcompeted by new entrants who produce the product in question at lower costs. In contrast, a monopolist, shielded from competition, is under no such pressure. In fact, since the cost of money production includes the monopolist's own salary as well as all of his non-monetary rewards, a monopolist's "natural" interest is to *raise* his costs. Hence, it should be expected that the cost of a monopolistically provided paper money would very soon, if not from the very outset, *exceed* those associated with a competitively provided commodity money.

Furthermore, it can be predicted that the price of monopolistically provided paper money will steadily increase, i.e., the purchasing power per unit money, and hence its quality will continuously fall. Protected from new entrants, every monopolist is always tempted to raise price and lower quality. Yet this is particularly true of a money monopolist. While other monopolists must consider the possibility that price increases (or quality decreases) due to an elastic demand for their product

may actually lead to reduced revenues, a money monopolist can rest assured that the demand for his particular product—the common medium of exchange—will be highly inelastic. Indeed, short of a hyperinflation, when the demand for money disappears entirely, a money monopolist is practically always in a position in which he may assume that his revenue from the sale of money will increase even as he raises the price of money (reduces its purchasing power). Equipped with the exclusive right to produce money and under the assumption of self-interest, the monopoly bank should be expected to engage in a steady increase of the money supply, for while an increased supply of paper money does not add anything to social wealth—the amount of directly useful consumer and producer goods in existence—but merely causes inflation (lowers the purchasing power of money), with each additional note brought into circulation the monopolist can increase *his* real income (at the expense of lowering that of the non-monopolistic public). He can print notes at practically zero cost and then turn around and purchase *real* assets (consumer or producer goods) or use them for the repayment of *real* debts. The real wealth of the non-bank public will be reduced—they own less goods and more money of lower purchasing power. However, the monopolist's real wealth will increase—he owns more non-money goods (and he always has as much money as he wants). Who, in this situation, except angels, would *not* engage in a steady expansion of the money supply and hence in a continuous depreciation of the currency?

It may be instructive to contrast the theory of fiat money as outlined above to the views of Milton Friedman, as the outstanding modern champion of fiat money.

While the younger Friedman paid no systematic attention to the question of the origin of money, the older Friedman recognizes that, as a matter of historical fact, all monies originated as commodity monies (and all money substitutes as warehouse claims to commodity money), and he is—justly—skeptical of the older Friedrich A. Hayek's proposal of competitively issued fiat currencies.[13] However, misled by his positivist methodology, Friedman fails to grasp that money (and money substitutes) *cannot* originate in any other way, and accordingly, that Hayek's proposal *must* fail.

In contrast to the views developed here, throughout his entire work Friedman maintains that a commodity money in turn would be "naturally" replaced by a—more efficient, resource cost saving—fiat money regime. Amazingly, however, he offers no

argumentative support for this thesis, evades all theoretical problems, and whatever argument or empirical observation he does offer *contradicts* his very claim. There is, first off, no indication that Friedman is aware of the fundamental limitations of replacing outside money by inside money. Yet if outside money cannot disappear from circulation, how, except through an act of expropriation, can the link between paper and a money commodity be severed? The continued use of outside money in circulation demonstrates that it is *not* regarded as an inferior money; and the fact that expropriation is needed for the decommoditization of money would demonstrate that fiat money is not a natural phenomenon!

Interestingly, after evading the problem of explaining how the suspension of redeemability can possibly be considered natural or efficient, Friedman explicitly recognizes—quite correctly—that fiat money cannot, for the reasons given above, be provided competitively but requires a monopoly. From there he proceeds to assert that "the production of fiat currency is, as it were, a natural monopoly."[14] However, from the fact that fiat money requires a monopoly, it does not follow that there is anything "natural" about such a monopoly, and Friedman provides no argument whatsoever as to how any monopoly can possibly be considered the natural outcome of the interactions of self-interested individuals. Moreover, the younger Friedman in particular appears to be almost completely ignorant of classical political economy and its anti-monopolistic arguments: the axiom that if you give someone a privilege he will make use of it, and hence the conclusion that every monopolistic producer will be inefficient (in terms of costs as well as of price and quality). In light of these arguments it has to be regarded as breathtakingly naive on Friedman's part first to advocate the establishment of a governmental money monopoly, and then to expect this monopolist not to use its power, but to operate at the lowest possible costs and to inflate the money supply only gently (at a rate of 3–5% per year). This would assume that, along with becoming a monopolist, a fundamental transformation in the self-interested nature of mankind would take place.

It is not surprising that the older Friedman, having had extensive experience with his own ideal of a world of pure fiat currencies as it came into existence after 1971, and looking back on his own central—resource cost savings—argument for a monopolistically provided fiat money of nearly four decades earlier, cannot but acknowledge that his predictions turned out

patently false.[15] Since abolishing the last remnants of the gold commodity money standard, he realizes, inflationary tendencies have dramatically increased on a world-wide scale; the predictability of future price movements has sharply decreased; the market for long-term bonds (such as consols) has been largely wiped out; the number of investment and "hard money" advisors and the resources bound up in such businesses have drastically increased; money market funds and currency futures markets have developed and absorbed significant amounts of real resources which otherwise—without the increased inflation and unpredictability—would not have come into existence at all or at least would never have assumed the same importance that they now have; and finally, it appears that even the direct resource costs devoted to the production of gold accumulated in private hoards as a hedge against inflation have increased.[16] But what conclusion does Friedman draw from this empirical evidence? In accordance with his own positivist methodology according to which science is prediction and false predictions falsify one's theory, one should expect that Friedman would finally discard his theory as hopelessly wrong and advocate a return to commodity money. Not so. Rather, in a remarkable display of continued ignorance (or arrogance), he emphatically concludes that none of this evidence should be interpreted as "a plea for a return to a gold standard. . . . On the contrary, I regard a return to a gold standard as neither desirable nor feasible."[17] Now as then he holds onto the view that the appeal of the gold standard is merely "nonrational, emotional," and that only a fiat money is "technically efficient."[18] According to Friedman, what needs to be done to overcome the obvious shortcomings of the current fiat money regime is find "some anchor to provide long-term price predictability, some substitute for convertibility into a commodity, or, alternatively, some device that would make predictability unnecessary. Many possible anchors and devices have been suggested, from monetary growth rules to tabular standards to the separation of the medium of exchange from the unit of account. As yet, no consensus has been reached among them."[19]

From Deposit and Loan Banking to Fractional-Reserve Banking: The Devolution of Credit

Banks perform two strictly separate tasks, only one of which has been considered so far.[20] On the one hand, they serve as

depositing institutions, offering safekeeping and clearing services. They accept deposits of (commodity) money and issue claims to money (warehouse receipts; money substitutes) to their depositors, redeemable at par and on demand. For every claim to money issued by them they hold an equivalent amount of genuine money on hand, ready for redemption (100 percent reserve banking). No interest is paid on deposits. Rather, depositors pay a fee to the bank for providing safekeeping and clearing services. Under conditions of free competition—free entry into the banking industry—the deposit fee, which constitutes a bank's revenue and possible source of profit, tends to be a minimum fee; and the profits—or rather. The interest returns—earned in banking tend to be the same as in any other, non-banking industry.

On the other hand, originally entirely separate institutionally from deposit institutions, banks also serve as intermediaries between savers and investors—as loan banks. In this function they first offer and enter into time-contracts with savers. Savers loan money to the bank for a specified—shorter or longer—period of time in exchange for the banks' contractual obligation of future repayment plus some additional interest return. From the point of view of savers, they exchange present money for a promise of future money: the interest return constituting their reward for performing the function of waiting. Having thus acquired temporary ownership of savings from savers, the bank then reloans the same money to investors (including itself) in exchange for the latters' obligation of future repayment and interest. The interest differential—the difference between the interest paid to savers and that charged to borrowers—represents the price for intermediating between savers and investors and constitutes the loan bank's income. As for deposit banking and deposit fees, under competitive conditions the costs of intermediation also tend to be minimum costs, and the profits from loan banking likewise tend to be the same as those that can be earned elsewhere.

Neither deposit banking nor loan banking as characterized here involve an increase in the money supply or a unilateral income or wealth redistribution. For every newly issued deposit note an equivalent amount of money is taken out of circulation (only the *form* of money changes, not its quantity), and in the course of loan banking the same sum of money simply changes hands repeatedly. All exchanges—between depositors and depositing institution as well as between savers, the

intermediating bank and investors—are mutually advantageous.

In contrast, fractional reserve banking involves a deliberate confusion between the deposit and the loan function. It implies an increase in the money supply, and it leads to a unilateral income redistribution in the bank's favor as well as to economic inefficiencies in the form of boom-bust business cycles.

The confusion of both banking functions comes to light in the fact that under fractional reserve banking, either depositors are being paid interest (rather than having to pay a fee), and/or savers are granted the right of instant withdrawal (rather than having to wait with their request for redemption until a specified future date). Technically, the possibility of a bank's engaging in such practices arises out of the fact that the holders of demand deposits (claims to money redeemable on demand, instantly, at par) typically do *not* exercise their right simultaneously, such that all of them approach the bank with the request for redemption at the same time. Accordingly, a deposit bank will typically hold an amount of reserves (of money proper) in excess of actual daily withdrawals. It becomes thus feasible for the bank to loan these "excess" reserves to borrowers, thus earning the bank an interest return (which the bank then may partially pass on to its depositors in the form of interest paying deposit accounts).

Proponents of fractional reserve banking usually claim that this practice of holding less than 100 percent reserves represents merely an innocuous money "economizing," and they are fond of pointing out that not only the bank, but depositors (receiving interest) and savers (receiving instant withdrawal rights) profit from the practice as well. In fact, fractional reserve banking suffers from two interrelated fatal flaws and is anything but innocuous and all-around beneficial. First off, it should be noted that anything less than 100 percent reserve deposit banking involves what one might call a legal impossibility. For in employing its excess reserves for the granting of credit, the bank actually transfers temporary ownership of them to some borrower, while the depositors, entitled as they are to instant redemption, retain their ownership over the same funds. But it is impossible that for some time depositor *and* borrower are entitled to exclusive control over the same resources. Two individuals *cannot* be the exclusive owner of one and the same thing at the same time. Accordingly, any bank pretending otherwise—in assuming demand liabilities in excess of actual reserves—must be considered as acting fraudulently. Its

contractual obligations *cannot* be fulfilled. From the outset, the bank must be regarded as inherently bankrupt—as revealed by the fact that it could not, contrary to its own presumption, withstand a possible bank run.

Second, in lending its excess reserves to borrowers, the bank increases the money supply, regardless whether the borrowers receive these reserves in the form of money proper or in that of demand deposits (checking accounts). If the loan takes the form of genuine money, then the amount of money proper in circulation is increased without withdrawing an equivalent amount of money substitutes from circulation; and if it takes the form of a checking account, then the amount of money substitutes is increased without taking a corresponding amount of genuine money out of circulation. In either case, there will be more money in existence now than before, leading to a reduction in the purchasing power of money (inflation) and, in its course, to a systematic redistribution of real income in favor of the bank and its borrower clients and at the expense of the non-bank public and all other bank clients. The bank receives additional interest income while it makes no additional contribution whatsoever to the real wealth of the non-bank public (as would be the case if the interest return were the result of reduced bank spending, i.e., savings); and the borrowers acquire real, non-monetary assets with their funds, thereby reducing the real wealth of the rest of the public by the same amount.

Moreover, insofar as the bank does not simply spend the excess reserves on its own consumption but instead loans them out against interest charges, invariably a business cycle is set in motion.[21] The quantity of credit offered is larger than before. As a consequence, the price of credit—the interest charged for loans—will fall below what it otherwise would have been. At a lower price, more credit is taken. Since money cannot breed more money, the borrowers, in order to be able to earn an interest return—and a pure profit on top of it—will have to convert their borrowed funds into investments, i.e., they will have to purchase or rent factors of production—land, labor, and possibly capital goods (produced factors of production)—capable of producing a future output of goods whose value (price) exceeds that of the input. Accordingly, with an expanded volume of credit, more presently available resources will be bound up in the production of *future* goods (instead of being used for present consumption) than otherwise would have been; and in order to complete all investment projects now under way, more time will

be needed than that required to complete only those that would have been begun without the credit expansion. All the future goods which would have been created without the expansion plus those that are newly added on account of the credit expansion must be produced.

However, in distinct contrast to the situation where the interest rate falls due to a fall in the rate of time preference, i.e., the degree to which present goods are preferred over future goods, and hence where the public has in fact saved more so as to make a larger fund of present goods available to investors in exchange for their promise of a return of future goods, no such change in time preference and savings has taken place in the case under consideration. The public has *not* saved more, and accordingly, the additional amount of credit granted by the bank does not represent *commodity credit* (credit covered by non-money goods which the public has abstained from consuming), but it is *fiduciary* or *circulation credit* (credit that has been literally created out of thin air—without any corresponding sacrifice, in the form of non-consumed non-money goods, on the part of the creditor).[22] Had the additional credit been commodity credit, an expanded volume of investment activities would have been warranted. There would have been a sufficiently large supply of present goods that could be devoted to the production of future goods such that all—the old as well as the newly begun—investment projects could be successfully completed and a higher level of future consumption attained. If the credit expansion is due to the granting of circulation credit, however, the ensuing volume of investment must actually prove over-ambitious. Misled by a lower interest rate, investors act *as if* savings had increased. They withdraw more of the presently available resources for investment projects, to be converted into future capital goods, than is warranted in light of actual savings. Consequently, capital goods prices will increase initially relative to consumer goods prices, but once the public's underlying time preference rate begins to reassert itself, a systematic shortage of consumer goods will arise. Accordingly, the interest rate will adjust upward, and it is now consumer goods prices which rise relative to capital goods prices, requiring the liquidation of part of the investment as unsustainable malinvestment. The earlier boom will turn bust, reducing the future standard of living below the level that otherwise could have been reached.

Among recent proponents of fractional reserve banking the cases of Lawrence White and George Selgin[23] deserve a few

critical comments, if for no other reason than that both are critics of Friedmanite monetarism and they hark back, instead, to the tradition of Austrian and in particular Misesian monetary theory.[24] Their monetary ideal is a universal commodity money such as an international gold standard and, based on this, a system of competitive banking which, they claim, would—and should be permitted to do so for reasons of economic efficiency as well as justice—engage in fractional reserve banking and the granting of fiduciary credit.

As to the question of justice, White and Selgin offer but one argument destined to show the allegedly non-fraudulent character of fractional reserves: that outlawing such a practice would involve a violation of the principle of freedom of contract by preventing "banks and their customers from making whatever sorts of contractual arrangements are mutually agreeable."[25] Yet this is surely a silly argument. First off, as a matter of historical fact fractional reserve banks never informed their depositors that some or all of their deposits would actually be loaned out and hence could not possibly be ready for redemption at any time. (Even if the bank were to pay interest on deposit accounts, and hence it *should* have been clear that the bank *must* loan out deposits, this does not imply that any of the depositors actually understand this fact. Indeed, it is safe to say that few if any do, even among those who are not economic illiterates.) Nor did fractional reserve banks inform their borrowers that some or all of the credit granted to them had been created out of thin air and was subject to being recalled at any time. How, then, can their practice be called anything but fraud and embezzlement!

Second, and more decisive, to believe that fractional reserve banking should be regarded as falling under and protected by the principle of freedom of contract involves a complete misunderstanding of the very meaning of this principle. Freedom of contract does not imply that *every* mutually advantageous contract should be permitted. Clearly, if A and B contractually agree to rob C, this would *not* be in accordance with the principle. Freedom of contract means instead that A and B should be allowed to make any contract whatsoever *regarding their own properties*, yet fractional reserve banking involves the making of contracts regarding the property of third parties. Whenever the bank loans its "excess" reserves to a borrower, such a bilateral contract affects the property of third parties in a threefold way. First, by thereby increasing the money supply, the purchasing power of all other money owners is reduced; second, all

depositors are harmed because the likelihood of their successfully recovering their own possessions is lowered; and third, all other borrowers—borrowers of commodity credit—are harmed because the injection of fiduciary credit impairs the safety of the entire credit structure and increases the risk of a business failure for every investor of commodity credit.

In order to overcome these objections to the claim that fractional reserve banking accords with the principle of freedom of contract, White and Selgin then, as their last line of defense, withdraw to the position that banks may attach an "option clause" to their notes, informing depositors that the bank may at any time suspend or defer redemption, and letting borrowers know that their loans may be instantly recalled.[26] While such a practice would indeed dispose of the charge of fraud, it is subject to another fundamental criticism, for such notes would no longer be *money* but a peculiar form of *lottery tickets*.[27] It is the function of money to serve as the most easily resalable and most widely acceptable good, so as to prepare its owner for instant purchases of directly or indirectly serviceable consumer or producer goods at not yet known future dates; hence, whatever may serve as money, so as to be instantly resalable at any future point in time, it must be something that bestows an *absolute* and *un*conditional property right on its owner. In sharp contrast, the owner of a note to which an option clause is attached does *not* possess an unconditional property title. Rather, similar to the holder of a "fractional reserve parking ticket" (where more tickets are sold than there are parking places on hand, and lots are allocated according to a "first-come-first-served" rule), he is merely entitled to participate in the drawing of certain prizes, consisting of ownership- or time-rental services to specified goods according to specified rules. But as drawing rights—instead of unconditional ownership titles—they only possess *temporally conditional* value, i.e., *until* the drawings, and become worthless as soon as the prizes have been allocated to the ticket holders; thus, they would be uniquely unsuited to serve as a medium of exchange.

As regards the second contention: that fractional reserve banking is economically efficient, it is noteworthy to point out that White, although he is undoubtably familiar with the Austrian-Misesian claim that *any* injection of fiduciary credit must result in a boom-bust cycle, nowhere even mentions the problem of business cycles. Only Selgin addresses the problem. In his attempt to show that fractional reserve banking does *not*

cause business cycles, however, Selgin then falls headlong into the fundamental Keynesian error of confusing the demand for money (determined by the utility of money) and savings (determined by time preference).[28]

According to Selgin, "to hold inside money is to engage in voluntary saving"; and accordingly, "an increase in the demand for money warrants an increase in bank loans and investments." For, "whenever a bank expands its liabilities in the process of making new loans and investments, it is the holders of the liabilities who are the ultimate lenders of credit, and what they lend are the real resources they could acquire if, instead of holding money, they spent it."[29] And based on this view of the holding of money as representing saving and an increased demand for money as being the same thing as increased saving, then, Selgin goes on to criticize Mises's claim that *any* issuance of fiduciary media, in lowering the interest rate below its "natural" level, must cause a business cycle as "confused." "No ill consequences result from the issue of fiduciary media in response to a greater demand for balances of inside money."[30]

Yet the confusion is all Selgin's. First off, it is plainly false to say that the holding of money, i.e., the act of not spending it, is equivalent to saving. One might as well say—and this would be equally wrong—that the not-spending of money is equivalent to *not* saving. In fact, saving is not-consuming, and the demand for money has nothing to do with saving *or* not-saving. The demand for money is the unwillingness to buy or rent non-money goods —and these include consumer goods (present goods) *and* capital goods (future goods). Not-spending money is to purchase *neither* consumer goods *nor* investment goods. Contrary to Selgin, then, matters are as follows: Individuals may employ their monetary assets in one of three ways. They can spend them on consumer goods; they can spend them on investment; or they can keep them in the form of cash. There are no other alternatives. While a person must at all times make decisions regarding three margins at once, invariably the outcome is determined by two distinct and praxeologically unrelated factors. The consumption/ investment proportion, i.e., the decision of how much of one's money to spend on consumption and how much on investment, is determined by a person's time preference, i.e., the degree to which he prefers present consumption over future consumption. On the other hand, the source of his demand for cash is the utility attached to money, i.e., the personal satisfaction derived from money in allowing him immediate purchases of directly or

indirectly serviceable consumer or producer goods at uncertain future dates.

Accordingly, if the demand for money increases while the social stock of money is given, this additional demand can only be satisfied by bidding down the money prices of non-money goods. The purchasing power of money will increase, the *real* value of individual cash balances will be raised, and at a higher purchasing power per unit money, the demand for and the supply of money will once again be equilibrated. The relative price of money versus non-money will have changed. But *unless* time preference is assumed to have changed at the same time, *real* consumption and *real* investment will remain the same as before: the additional money demand is satisfied by reducing nominal consumption *and* investment spending in accordance with the same pre-existing consumption/investment proportion, driving the money prices of both consumer as well as producer goods down and leaving real consumption and investment at precisely their old levels. If time preference is assumed to change concomitantly with an increased demand for money, however, then everything is possible. Indeed, if spending were reduced exclusively on investment goods, an increased demand for money could even go hand in hand with an increase in the rate of interest and reduced saving and investment. Yet this, or the equally possible opposite outcome, would not be due to a change in the demand for money but exclusively to a change (a rise, or a fall) in the time preference schedule. In any case, if the banking system were to follow Selgin's advice and *accommodate* an increased demand for cash by issuing fiduciary credit, the social rate of time preference would be falsified, excessive investment would result, and a boom-bust cycle would be set in motion, rendering the practice of fractional reserve banking fraudulent *as well as* economically inefficient.

White's and Selgin's proposal of a commodity money based system of competitive fractional reserve banking—of partial fiat money—is neither just (and hence the term "free banking" is inappropriate), nor does it produce economic stability. It is no fundamental improvement as compared to the monetarist reality of monopolistically issued pure fiat currencies. Indeed, in one respect Friedman's pure fiat money proposal contains a more realistic and correct analysis than White's and Selgin's because Friedman recognizes "what used to be called 'the inherent instability' of fractional reserve banking," and he understands that this inherent instability of competitive fractional reserve

banking will sooner or later collapse in a "liquidity crisis" and then lead to his favored regime—a governmentally provided pure fiat currency—anyway.[31]

Only a system of universal commodity money (gold), competitive banks, *and* 100 percent reserve deposit banking with a strict functional separation of loan and deposit banking is in accordance with justice, can assure economic stability and represents a genuine answer to the current monetarist fiasco.

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[1] See on the following, in particular Carl Menger, *Principles of Economics* (New York: New York University Press, 1981); idem, *Geld*, in Carl Menger, *Gesammelte Werke*, vol. 4, F. A. Hayek, ed. (Tübingen: Mohr, 1970); Ludwig von Mises, *Theory of Money and Credit* (Irvington-on-Hudson, N.Y.: Foundation for Economic Education, 1971); idem, *Human Action: A Treatise on Economics* (Chicago: Regnery, 1966).

[2] Mises, *Theory of Money and Credit*, pp. 32–33.

[3] See Murray N. Rothbard, "New Light on the Prehistory of the Austrian School," in *The Foundations of Modern Austrian Economics*, E. G. Dolan, ed. (Kansas City: Sheed and Ward, 1976); Joseph T. Salerno, "Two Traditions in Modern Monetary Theory," *Journal des Economistes et des Etudes Humaines* 2, no. 2/3 (1991).

[4] On commodity reserve proposals see B. Graham, *Storage and Stability* (New York: McGraw Hill, 1937); F. D. Graham, *Social Goals and Economic Institutions* (Princeton: Princeton University Press, 1942); also F. A. Hayek, "A Commodity Reserve Currency," *Economic Journal* 210 (1943); Milton Friedman, "Commodity-Reserve Currency," *Journal of Political Economy* (1951).

[5] See Milton Friedman, "The Case for Flexible Exchange Rates" in Friedman, *Essays in Positive Economics* (Chicago: University of Chicago Press, 1953); idem, *A Program for Monetary Stability* (New York: Fordham University Press, 1959); also *Policy Implications of Trade and Currency Zones: A Symposium* (Kansas City: Federal Reserve Bank of Kansas City, 1991).

[6] See Irving Fisher, *The Purchasing Power of Money* (New York: Augustus Kelley, 1963); idem, *Stabilizing the Dollar* (New

York: Macmillan, 1920); idem, *The Money Illusion* (New York: Adelphi, 1929); Milton Friedman, "A Monetary and Fiscal Framework for Economic Stability," *American Economic Review* (1948).

[7] Mises, *Theory of Money and Credit*, pp. 187–94; idem, *Human Action*, pp. 219–23.

[8] See N. Wallace, "A Legal Restrictions Theory of the Demand for 'Money'," Federal Reserve Bank of Minneapolis *Quarterly Review* (1983); E. Fama, "Financial Intermediation and Price Level Control," *Journal of Monetary Economics* (1983); for a critique see Lawrence White, "Accounting for Non-Interest-Bearing Currency," *Journal of Money, Credit, and Banking* (1987).

[9] Mises, *Theory of Money and Credit*, p. 111.

[10] See Friedman, "Essays in Positive Economics," p. 210; idem, *A Program for Monetary Stability*, pp. 4–8; idem, *Capitalism and Freedom* (Chicago: University of Chicago Press, 1962), p. 40.

[11] Indeed, historically this has been the case: Traditionally, notes have always been widely distrusted, and their acceptability—as compared to that of genuine money such as gold or silver coins—was severely limited.

In order to increase the popularity of money substitutes two complementary measures were actually required: First, the note-issuing depositing institution had to overvalue deposit notes against genuine money by either charging no depositing fee or by even paying interest on deposits. Secondly, because the guarding of money is actually *not* costless and deposited money *cannot* possibly generate an interest return, the bank, in order to cover its otherwise unavoidable losses, had to engage in fractional reserve banking, i.e., it had to issue and bring into circulation new, additional deposit tickets that, while physically indistinguishable from any other notes, were actually not covered by genuine money.

On the ethical and economic status of the practice of fractional-reserve banking see the section, "From Deposit and Loan Banking to Fractional-Reserve Banking: The Devolution of Credit," below.

[12] It might be argued that a monopoly agreement would be possible (conceivable), if the monopolistic bank of issue were owned by—and its profits distributed to—everyone. Wouldn't everyone, then, not just the monopolist, profit from the savings of substituting paper for gold?

In fact, such an agreement is illusionary. Joint ownership of the monopoly bank would imply that tradeable stock certificates

must be issued and distributed. But who should get how much stock? Bank clients, according to their deposit size? Yet all private holders of notes help save on gold and would want to be included among the bank owners according to the size of their note holdings. And what about the owners and sellers of non-money goods? In showing themselves willing to accept paper instead of gold, they, too, play their part in the resource cost savings. But how in the world is one to determine how many shares to award *them*, when their contribution consists, as it does, of various quantities of heterogeneous consumer and producer goods? Here, at the very latest, it would become impossible to reach agreement.

Moreover, why would any new market participant—any later deposit, note and/or non-money good owner *not* initially endowed with bank stock—want to consent to and support this arrangement? Why should he *pay* for banking stock, while it was distributed to the initial wealth owners free of charge, even though he is now involved in resource cost savings just as much as they were then? Such an arrangement would involve a systematic redistribution of income and wealth in favor of all initial wealth owners and at the expense of all later ones. Yet if new, additional bank stock were issued for each new deposit, note or non-money good owner, such stock would be worthless from the outset and any bank offering it would be a non-starter.

In addition, as will be explained below, regardless of how the ownership problem is resolved, the very operation of the bank will—indeed *must*—have effects on—is not neutral to—the interpersonal income and wealth distribution.

[13] See Milton Friedman and Anna Schwartz, "Has Government Any Role in Money?" *Journal of Monetary Economics* (1986); for Hayek's proposal see his *Denationalization of Money* (London: Institute of Economic Affairs, 1976).

[14] See Friedman, *Essays in Positive Economics*, p. 216; also Friedman and Schwartz, "Has Government Any Role in Money?"

[15] See Milton Friedman, "The Resource Cost of Irredeemable Paper Money," *Journal of Political Economy* (1986).

[16] Monetarists had predicted that, as the result of the demonetization of gold and the transition to a pure fiat money system, the price of gold would *fall*—from the then official rate of $35 per ounce to an estimated non-monetary value of gold of around $6. In fact, the price of gold *rose*. At one point it reached $850 per ounce, and for most of the time it has lingered between $300 and $400. As of this writing the price is $375.

[17] Friedman, “The Resource Cost of Irredeemable Paper Money,” p. 646.

[18] Friedman, *Essays in Positive Economics*, p. 250.

[19] Friedman, “The Resource Cost of Irredeemable Paper Money,” p. 646; also idem, *Money Mischief: Episodes in Monetary History* (New York: Harcourt Brace Jovanovich, 1992), chap. 10.

Among the suggestions for an alternative fiat money “anchor” recently considered by Friedman, the “frozen monetary base rule” deserves a brief comment (see Friedman, “Monetary Policy for the 1980s,” in *To Promote Prosperity*, J. H. Moore, ed. [Stanford: Hoover Institution, 1984]). In one respect this rule represents an advance over his earlier 3 to 5 percent monetary growth rule. His advocacy of the latter rule was based essentially on the erroneous—proto-Keynesian—notion that money constitutes part of social capital, such that an economy cannot grow by 3 to 5 percent unless it is accommodated to do so by a proportional increase in the money supply. In contrast, the frozen monetary base rule indicates a recognition of the old—Humean—insight that any supply of money is equally optimal or, in Friedman’s own words, that money’s “usefulness to the community as a whole does not depend on how much money there is” (Friedman, *Money Mischief*, p. 28). Yet otherwise the proposal represents no advance at all. For how in the world can a monopolist be expected to follow a frozen monetary base rule any more than a less stringent 3 to 5 percent growth rule?

Moreover, even if this problem were solved miraculously, this would still not alter the monopoly’s character as an instrument of unilateral expropriation and income and wealth redistribution. For the monopolist, apart from offering depositing and clearing services (for which his customers would pay him a fee), would also have to perform the function, to customers and non-customers alike, of replacing old, worn-out notes—one-to-one and free of charge—with new, identical ones (otherwise, who would want to replace a permanent commodity money by a perishable fiat money?). Yet while the costs associated with this task may be low, they are definitely not zero. Accordingly, in order to avoid losses and recoup his expenses, the monopolist cannot but *increase* the monetary base—and hence one would essentially be back at the older monetary growth rule.

[20] On the following see in particular Murray N. Rothbard, *The Mystery of Banking* (New York: Richardson and Snyder, 1983); idem, *The Case for A 100 Percent Gold Dollar* (Auburn, Ala.: Ludwig von Mises Institute, 1991); Mises, *Theory of Money*

and Credit; idem, *Human Action*; also Walter Block, "Fractional Reserve Banking: An Interdisciplinary Perspective," in *Man, Economy, and Liberty: Essays in Honor of Murray N. Rothbard*, Walter Block and Llewellyn H. Rockwell, Jr., eds. (Auburn, Ala.: Ludwig von Mises Institute, 1988); J. Koch, *Fractional Reserve Banking: A Practical Critique* (Master's thesis, University of Nevada, Las Vegas, 1992).

[21] On the theory of the business cycle see in particular Ludwig von Mises, *Geldwertstabilisierung und Konjunkturpolitik* (Jena: Gustav Fischer, 1928); idem, *Human Action*, chap. 20; F. A. Hayek, *Prices and Production* (London: Routledge & Kegan Paul, 1931); Murray N. Rothbard, *America's Great Depression* (Kansas City: Sheed & Ward, 1975).

[22] On the fundamental distinction between commodity credit and circulation credit, see Mises, *Theory of Money and Credit*, pp. 263 ff.

[23] See Lawrence White, *Competition and Currency* (New York: New York University Press, 1989); George Selgin, *The Theory of Free Banking* (Totowa, N.J.: Bowman & Littlefield, 1988).

[24] For a critique of White and Selgin as misinterpreting the fundamental thrust of Mises's theory of money and banking see Joseph Salerno, "The Concept of Coordination in Austrian Macroeconomics," in *Austrian Economics: Perspectives on the Past and Prospects for the Future*, Richard Ebeling, ed. (Hillsdale, Mich.: Hillsdale College Press, 1991); idem, "Mises and Hayek Dehomogenized," *Review of Austrian Economics* 6, no. 2 (1993): 113–46.

[25] White, *Competition and Currency*, p. 156, also pp. 55–56; George Selgin, "Short-Changed in Chile: The Truth about the Free-Banking Episode," *Austrian Economics Newsletter* (Winter/Spring, 1990): 5.

[26] White, *Currency and Competition*, p. 157; Selgin, *The Theory of Free Banking*, p. 137.

[27] See Block, "Fractional Reserve Banking: An Interdisciplinary Perspective," p. 30.

[28] For a critique of this error see Rothbard, *America's Great Depression*, pp. 39–43; Hans-Hermann Hoppe, "Theory of Employment, Money, Interest, and the Capitalist Process: The Misesian Case Against Keynes," in *The Economics and Ethics of Private Property*, Hoppe, ed. (Boston: Kluwer, 1993), pp. 119–20, 137–38.

[29] Selgin, *The Theory of Free Banking*, p. 54–55.

[30] Ibid., pp. 61–62.

[31] See Friedman and Schwartz, “Has Government Any Role in Money?”

The Consumption Tax A Critique

Murray N. Rothbard

The Alleged Superiority of the Income Tax

Orthodox neoclassical economics has long maintained that, from the point of view of the taxed themselves, an income tax is "better than" an excise tax on a particular form of consumption, since, in addition to the total revenue extracted, which is assumed to be the same in both cases, the excise tax weights the levy heavily against a particular consumer good. In addition to the total amount levied, therefore, an excise tax skews and distorts spending and resources away from the consumers' preferred consumption patterns. Indifference curves are trotted out with a flourish to lend the scientific patina of geometry to this demonstration.

As in many other cases when economists rush to judge various courses of action as "good," "superior" or "optimal," however, the *ceteris paribus* assumptions underlying such judgments—in this case, for example, that total revenue remains the same—do not always hold up in real life. Thus, it is certainly possible, for political or other reasons, that one particular form of tax is *not likely* to result in the same total revenue as another. The nature of a particular tax might lead to less or more revenue than another tax. Suppose, for example, that all present taxes are abolished and that the same total is to be raised from a new capitation, or head, tax, which requires that every inhabitant of the United States pay an equal amount to the support of federal, state, and local government. This would mean that the existing total government revenue of the United States, which we estimate at 1 trillion, 380 million dollars—and here exact figures are not important—would have to be divided between an approximate total of 243 million people. Which would mean that every man, woman, and child in America would be required to pay to government each and every year, $5680. Somehow, I don't believe that anything like this large a sum could be collectible by the authorities, no matter how many enforcement

powers are granted the IRS. A clear example where the *ceteris paribus* assumption flagrantly breaks down.

But a more important, if less dramatic, example is nearer at hand. Before World War II, Internal Revenue collected the full amount, in one lump sum, from every taxpayer, on March 15 of each year. (A month's extension was later granted to the long-suffering taxpayers.) During World War II, in order to permit an easier and far smoother collection of the far higher tax rates for financing the war effort, the federal government instituted a plan conceived by the ubiquitous Beardsley Ruml of R.H. Macy & Co., and technically implemented by a bright young economist at the Treasury Department, Milton Friedman. This plan, as all of us know only too well, coerced every employer into the unpaid labor of withholding the tax each month from the employee's paycheck and delivering it to the Treasury. As a result, there was no longer a need for the taxpayer to cough up the total amount in a lump sum each year. We were assured by one and all, at the time, that this new *withholding tax* was strictly limited to the wartime emergency, and would disappear at the arrival of peace. The rest, alas, is history. But the point is that no one can seriously maintain that an income tax deprived of withholding power, could be collected at its present high levels.

One reason, therefore, that an economist cannot claim that the income tax, or any other tax, is better from the point of view of the taxed person, is that total revenue collected is often a function of the type of tax imposed. And it would seem, that from the point of view of the taxed person, the less extracted from him the better. Even indifference curve analysis would have to confirm that conclusion. If someone wishes to claim that a taxed person is disappointed at how *little* tax he is asked to pay, that person is always free to make up the alleged deficiency by making a voluntary gift to the bewildered but happy taxing authorities.[1]

A second insuperable problem with an economist's recommending any form of tax from the alleged point of view of the taxee, is that the taxpayer may well have particular subjective evaluations of the form of tax, apart from the total amount levied. Even if the total revenue extracted from him is the same for tax A and tax B, he may have very different subjective evaluations of the two taxing processes. Let us return, for example, to our case of the income as compared to an excise tax. Income taxes are collected in the course of a coercive and even brutal examination of virtually every aspect of every

taxpayer's life by the all-seeing, all-powerful Internal Revenue Service. Each taxpayer, furthermore, is obliged by law to keep accurate records of his income and deductions, and then, painstakingly and truthfully, to fill out and submit the very forms that will tend to incriminate him into tax liability. An excise tax, say on whiskey or on movie admissions, will intrude directly on no one's life and income, but only into the sales of the movie theater or liquor store. I venture to judge that, in evaluating the "superiority" or "inferiority" of different modes of taxation, even the most determined imbiber or moviegoer would cheerfully pay far higher prices for whiskey or movies than neoclassical economists contemplate, in order to avoid the long arm of the IRS.[2]

The Forms of Consumption Tax

In recent years, the old idea of a consumption tax in contrast to an income tax has been put forward by many economists, particularly by allegedly pro-free market conservatives. Before turning to a critique of the consumption tax as a substitute for the income tax, it should be noted that current proposals for a consumption tax would deprive taxpayers of the psychic joy of eradicating the IRS. For while the discussion is often couched in either-or terms, the various proposals really amount to *adding* a new consumption tax on top of the current massive armamentarium of taxing power. In short, seeing that income tax levels may have reached their political limits for the time being, our tax consultants and theoreticians are suggesting a shining new tax weapon for the government to wield. Or, in the immortal words of that exemplary economic czar and servant of absolutism, Jean-Baptiste Colbert, the task of the taxing authorities is to "so pluck the goose as to obtain the largest amount of feathers with the least amount of hissing." We the taxpayers, of course, are the geese.

But let us put the best face on the consumption tax proposal, and deal with it as a complete replacement of the income tax by a consumption tax, with total revenue remaining the same. Our first point is that one venerable form of consumption tax not only retains existing IRS despotism, but makes it even worse. This is the consumption tax first prominently proposed by Irving Fisher.[3] The Fisher tax would retain the IRS, as well as the requirement that everyone keep detailed and faithful records and truthfully estimate his own taxes. But it would add something

else. *In addition* to reporting one's income and deductions, everyone would be required to report his additions to or subtractions from capital assets (including cash) over the year. Then, everyone would pay the designated tax rate on his income minus his addition to capital assets, or net consumption. Or, contrarily, if he spent more than he earned over the year, he would pay a tax on his income plus his reduction of capital assets, again equalling his net consumption. Whatever the other merits or demerits of the Fisherine tax, it would *add* to IRS power over every individual, since the state of his capital assets, including his stock of cash, would now be examined with the same care as his income.

A second proposed consumption tax, the VAT, or value-added tax, imposes a curious hierarchical tax on the "value added" by each firm and business. Here, instead of every individual, every business firm would be subjected to intense bureaucratic scrutiny, for each firm would be obliged to report its income and its expenditures, paying a designated tax on the net income. This would tend to distort the structure of business. For one thing, there would be an incentive for uneconomic vertical integration, since the fewer the number of times a sale takes place, the fewer the imposed taxes. Also, as has been happening in European countries with experience of the VAT, a flourishing industry may arise in issuing phony vouchers, so that businesses can overinflate their alleged expenditures, and reduce their reported value added. Surely a sales tax, other things being equal, is manifestly both simpler, less distorting of resources, and enormously less bureaucratic and despotic than the VAT. Indeed the VAT seems to have no clear advantage over the sales tax, except of course, if multiplying bureaucracy and bureaucratic power is considered a *benefit*.

The third type of consumption tax is the familiar percentage tax on retail sales. Of the various forms of consumption tax, the sales tax surely has the great advantage, for most of us, of eliminating the despotic power of the government over the life of every individual, as in the income tax, or over each business firm, as in the VAT. It would not distort the production structure as would the VAT, and it would not skew individual preferences as would specific excise taxes.

Let us now consider the merits or demerits of a consumption as against an income tax, setting aside the question of bureaucratic power. It should first be noted that the consumption tax and the income tax each carry distinct philosophical

implications. The income tax rests necessarily on the ability-to-pay principle, namely the principle that if a goose has more feathers it is more ripe for the plucking. The ability-to-pay principle is precisely the creed of the highwayman, of taking where the taking is good, of extracting as much as the victims can bear. The ability-to-pay principle is the philosophical embodiment of the memorable answer of Willie Sutton when he was asked, perhaps by a psychological social worker, why he robbed banks. "Because," answered Willie, "that's where the money is."

The consumption tax, on the other hand, can only be regarded as a payment for permission-to-live. It implies that a man will not be allowed to advance or even sustain his own life, unless he pays, off the top, a fee to the State for permission to do so. The consumption tax does not strike me, in its philosophical implications, as one whit more noble, or less presumptuous, than the income tax.

Proportionality And Progressivity: Who? Whom?

One of the suggested virtues of the consumption tax advanced by conservatives is that, while the income tax can be and generally is progressive, the consumption tax is virtually automatically proportional. It is also claimed that progressive taxation is tantamount to theft, with the poor robbing the rich, whereas proportionality is the fair and ideal tax. In the first place, however, the Fisher-type consumption tax could well be every bit as progressive as the income tax. Even the sales tax is scarcely free from progressivity. For most sales taxes in practice exempt such products as food, exemptions that distort individual market preferences and also introduce progressivity of taxation.

But is progressivity really the problem? Let us take two individuals, one who makes $10,000 a year and another who makes $100,000. Let us posit two alternative tax systems: one proportional, the other steeply progressive. In the progressive tax system, income tax rates range from 1 percent for the $10,000 a year man, to 15 percent for the man with the higher income. In the succeeding proportional system, let us assume, everyone, regardless of income, pays the same 30 percent of his income. In the progressive system, the low-income man pays $100 a year in taxes, and the wealthier pays $15,000, whereas in the allegedly fairer proportional system, the poorer man pays $3000 instead of

$100, while the wealthier pays $30,000 instead of $15,000. It is, however, small consolation to the higher-income person that the poorer man is paying the same percentage of income in tax as he, for the wealthier person is being mulcted far more than before. It is unconvincing, therefore, to the richer man to be told that he is now no longer being "robbed" by the poor, since he is losing far more than before. If it is objected that the *total level* of taxation is far higher under our posited proportional than progressive system, we reply that that is precisely the point. For what the higher income person is *really* objecting to is not the mythical robbery inflicted upon him by "the poor;" his problem is the very real amount being extracted from him by the *State*. The wealthier man's real complaint, then, is not how badly he is being treated relative to someone else, but how much money is being extracted from his own hard-earned assets. We submit that *progressivity* of taxes is a red herring; that the real problem and proper focus should be on the *amount* that any given individual is obliged to surrender to the State.[4]

The State, of course, spends the money it receives on various groups, and those who claim that progressive taxation mulcts the rich on behalf of the poor argue by comparing the income status of the taxpayers with those on the receiving end of the State's largess. Similarly, the Chicago school claims that the tax system is a process by which the middle class exploits both the rich and the poor, while the New Left insists that taxes are a process by which the rich exploit the poor. All of these attempts misfire by unjustifiably bracketing as one class the payers to, and recipients from, the State. Those who pay taxes to the State, be they wealthy, middle class or poor, are certainly on net, a *different set* of people than those wealthy, middle-class, or poor, who receive money from State coffers, which notably includes politicians and bureaucrats as well as those who receive favors from these members of the State apparatus. It makes no sense to lump these groups together. It makes far more sense to realize that the process of tax-and-expenditures creates *two* and only two separate, distinct, antagonistic social classes, what Calhoun brilliantly identified as the (net) taxpayers and the (net) tax-consumers, those who pay taxes and those who live off them. I submit that, looked at in this perspective, it also becomes particularly important to minimize the burdens which the State and its privileged tax-consumers place on the productivity of the taxpayers.[5]

The Problem of Taxing Savings

The major argument for replacing an income by a consumption tax is that savings would no longer be taxed. A consumption tax, its advocates assert, would tax consumption and not savings. The fact that this argument is generally advanced by free-market economists, in our day mainly by the supply-siders, strikes one immediately as rather peculiar. For individuals on the free market, after all, each decide their own allocation of income to consumption or to savings. This proportion of consumption to savings, as Austrian economics teaches us, is determined by each individual's rate of time preference, the degree by which he prefers present to future goods. For each person is continually allocating his income between consumption now, as against saving to invest in goods that will bring an income in the future. And each person decides the allocation on the basis of his time preference. To say, therefore, that only consumption should be taxed and not savings, is to challenge the voluntary preferences and choices of individuals on the free market, and to say that they are saving far too little and consuming too much, and therefore that taxes on savings should be removed and all the burdens placed on present as compared to future consumption. But to do that is to challenge free-market expressions of time preference, and to advocate government coercion to forcibly alter the expression of those preferences, so as to coerce a higher saving to consumption ratio than desired by free individuals.

We must, then, ask: by what standards do the supply-siders and other advocates of consumption taxes decide why and to what extent savings are too low and consumption too high? What are their criteria of "too low" or "too much," on which they base their proposed coercion over individual choice? And what is more, by what right do they call themselves advocates of the "free-market" when they propose to dictate choices in such a vital realm as the proportion between present and future consumption?

Supply-siders consider themselves heirs of Adam Smith, and in one sense they are right. For Smith, too, driven in his case by a deep-seated Calvinist hostility to luxurious consumption, sought to use government to raise the social proportion of investment to consumption beyond the desires of the free market. One method he advocated was high taxes on luxurious consumption; another was usury laws, to drive interest rates below the free market level, and thereby coercively channel or

ration savings and credit into the hands of sober, industrious prime business borrowers, and out of the hands of "projectors" and "prodigal" consumers who would be willing to pay high interest charges. Indeed, through the device of the ghostly Impartial Spectator, who, in contrast to real human beings, is indifferent to the time at which he will receive goods, Smith virtually held a zero rate of time preference to be the ideal.[6]

The only coherent argument offered by advocates of consumption against income taxation is that of Irving Fisher, based on suggestions in John Stuart Mill.[7] Fisher argued that, since the goal of all production is consumption, and since all capital goods are only way-stations on the way to consumption, the only *genuine* income is consumption spending. The conclusion is quickly drawn that therefore only consumption income, not what is generally called "income," should be subject to tax.

More specifically, savings and consumption, it is alleged, are not really symmetrical. All saving is directed toward enjoying more consumption in the future. Potential present consumption is foregone in return for an expected increase in future consumption. The argument concludes that therefore any return on investment can only be considered a "double-counting" of income, in the same way that a repeated counting of the gross sales of, say, a case of Wheaties from manufacturer to jobber to wholesaler to retailer as part of net income or product would be a multiple counting of the same good.

This reasoning is correct as far as it goes in explaining the consumption-savings process, and is quite helpful in leveling a critique of conventional national income or product statistics. For these statistics carefully leave out all double or multiple counting in order to arrive at total net product, yet they arbitrarily include in total net income, investment in all capital goods *lasting longer than one year*—a clear example itself of double counting. Thus, the current practice absurdly excludes from net income a merchant's investment in inventory lasting eleven months before sale, but *includes* in net income investment in inventory lasting for thirteen months. The cogent conclusion is that an estimate of social or national income should include only consumer spending.[8]

Despite the many virtues of the Fisher analysis, however, it is impermissible to leap to the conclusion that only consumption should be taxed rather than income. It is true that savings leads to a greater supply of consumer goods in the future. But this fact is known to all persons; that is precisely *why* people save. The

market, in short, knows all about the productive power of savings for the future, and allocates its expenditures accordingly. Yet even though people know that savings will yield them more future consumption, why don't they save *all* their current income? Clearly, because of their time preferences for present as against future consumption. These time preferences govern people's allocation between present and future. Every individual, given his money "income"—defined in conventional terms—and his value scales, will allocate that income in the most desired proportion between consumption and investment. Any *other* allocation of such income, any different proportions, would therefore satisfy his wants and desires to a lesser extent and lower his position on his value scale. It is therefore incorrect to say that an income tax levies an extra burden on savings and investment; it penalizes an individual's *entire* standard of living, present and future. An income tax does not penalize saving *per se* any more than it penalizes consumption.

Hence, the Fisher analysis, for all its sophistication, simply shares the other consumption tax advocates' prejudices against the voluntary free-market allocations between consumption and investment. The argument places greater weight on savings and investment than the market does. A consumption tax is just as disruptive of voluntary time preferences and market allocations as is a tax on savings. In most or all other areas of the market, free market economists understand that allocations on the market tend always to be optimal with respect to satisfying consumers' desires. Why then do they all too often make an exception of consumption-savings allocations, refusing to respect time-preference rates on the market?

Perhaps the answer is that economists are subject to the same temptations as anyone else. One of these temptations is to call loudly for you, him, and the other guy to work harder, and save and invest more, thereby increasing one's own present and future standards of living. A follow-up temptation is to call for the gendarmes to enforce that desire. Whatever we may call this temptation, economic science has nothing to do with it.

The Impossibility of Taxing Only Consumption

Having challenged the merits of the goal of taxing only consumption and freeing savings from taxation, we now proceed to deny the very *possibility* of achieving that goal, i.e., we maintain that a consumption tax will devolve, willy-nilly, into a

tax on income and therefore on savings as well. In short, that even if, for the sake of argument, we should *want* to tax only consumption and not income, we should not be able to do so.

Let us take, first, the Fisher plan, which, seemingly straightforward, would exempt saving and tax only consumption. Let us take Mr. Jones, who earns an annual income of $100,000. His time preferences lead him to spend 90 percent of his income on consumption, and save-and-invest the other 10 percent. On this assumption, he will spend $90,000 a year on consumption, and save-and-invest the other $10,000. Let us assume now that the government levies a 20 percent tax on Jones's income, and that his time-preference schedule remains the same. The ratio of his consumption to savings will still be 90:10, and so, after-tax income now being $80,000, his consumption spending will be $72,000 and his saving-investment $8,000 per year.[9]

Suppose now that instead of an income tax, the government follows the Irving Fisher scheme, and levies a 20 percent annual tax on Jones's *consumption*. Fisher maintained that such a tax would fall only on consumption, and not on Jones's savings. But this claim is incorrect, since Jones's entire savings-investment is based solely on the possibility of his *future* consumption, which will be taxed equally. Since future consumption will be taxed, we assume, at the same rate as consumption at present, we cannot conclude that savings in the long run receives any tax exemption or special encouragement. There will therefore be no shift by Jones in favor of savings-and-investment due to a consumption tax.[10] In sum, any payment of taxes to the government, whether they be consumption or income, necessarily reduces Jones's net income. Since his time preference schedule remains the same, Jones will therefore reduce his consumption *and* his savings proportionately. The consumption tax will be shifted by Jones until it becomes equivalent to a lower rate of tax on his own income. If Jones still spends 90 percent of his net income on consumption, and 10 percent on savings-investment, his net income will be reduced by $15,000, instead of $20,000, and his consumption will now total $76,000, and his savings-investment $9,000. In other words, Jones's 20 percent consumption tax will become equivalent to a 15 percent tax on his income, and he will arrange his consumption-savings proportions accordingly.[11]

We saw at the beginning of this paper that an excise tax skewing resources away from more desirable goods does not necessarily mean we can recommend an alternative, such as an income tax. But how about a general sales tax, assuming that one

can be levied politically with no exemptions of goods or services? Wouldn't such a tax burden be only on consumption and not income?

In the first place, a sales tax would be subject to the same problems as the Fisher consumption tax. Since future and present consumption would be taxed equally, there would again be shifting by each individual so that future as well as present consumption would be reduced. But, furthermore, the sales tax is subject to an extra complication: the general assumption that a sales tax can be readily shifted forward to the consumer is totally fallacious. In fact, the sales tax cannot be shifted forward at all!

Consider: all prices are determined by the interaction of supply, the stock of goods available to be sold, and by the demand schedule for that good. If the government levies a general 20 percent tax on all retail sales, it is true that retailers will now incur an additional 20 percent cost on all sales. But how can they raise prices to cover these costs? Prices, at all times, tend to be set at the maximum net revenue point for each seller. If the sellers can simply pass the 20 percent increase in costs onto the consumers, why did they have to wait until a sales tax to raise prices? Prices are *already* at highest net income levels for each firm. Any increase in cost, therefore, will have to be absorbed by the firm; it cannot be passed forward to the consumers. Put another way: the levy of a sales tax has not changed the stock already available to the consumers; that stock has *already* been produced. Demand curves have not changed, and there is no reason for them to do so. Since supply and demand have not changed, neither will price. Or, looking at the situation from the point of the demand and supply of money, which help determine general price levels, the supply of money has remained as given, and there is also no reason to assume a change in the demand for cash balances either. Hence, prices will remain the same.

It might be objected that, even though shifting forward to higher prices cannot occur immediately, it can do so in the longer run, when factor and resources owners will have a chance to lower their supply at a later point in time. It is true that a partial excise can be shifted forward in this way, in the long run, by resources leaving, let us say, the liquor industry and shifting into other untaxed industries. After a while, then, the price of liquor can be raised by a liquor tax, but *only* by reducing the future supply, the stock of liquor available for sale at a future date. But such "shifting" is not a painless and prompt passing on

of a higher price to consumers; it can only be accomplished in a longer run by a reduction in the supply of a good.

The burden of a *sales* tax cannot be shifted forward in the same way, however. For resources cannot escape a sales tax as they can an excise tax: by leaving the liquor industry and moving to another. We are assuming that the sales tax is general and uniform; it cannot therefore, be escaped by resources except by fleeing into idleness. Hence, we cannot maintain that the sales tax will be shifted forward in the long run by *all* supplies of goods falling by something like 20 percent (depending on elasticities). General supplies of goods will fall, and hence prices rise, only to the relatively modest extent that labor, seeing a rise in the opportunity cost of leisure because of a drop in wage incomes, will leave the labor force and become voluntarily idle (or more generally will lower the number of hours worked).[12]

In the long run, of course, and that run is not *very* long, the retail firms will not be able to absorb a sales tax; they are not unlimited pools of wealth ready to be confiscated. As the retail firms suffer losses, their demand curves for all intermediate goods, and then for all factors of production, will shift sharply downward, and these declines in demand schedules will be rapidly transmitted to all the ultimate factors of production: labor, land, and interest income. And since all firms tend to earn a uniform interest return determined by social time preference, the incidence of the fall in demand curves will rest rather quickly on the two ultimate factors of production: land and labor.

Hence, the seemingly common-sense view that a retail sales tax will readily be shifted forward to the consumer is totally incorrect. In contrast, the initial impact of the tax will be on the net incomes of retail firms. Their severe losses will lead to a rapid downward shift in demand curves, *backward* to land and labor, i.e., to wage rates and ground rents. Hence, instead of the retail sales tax being quickly and painlessly shifted forward, it will, in a longer-run, be painfully shifted backward to the incomes of labor and landowners. Once again, an alleged tax on *consumption*, has been transmuted by the processes of the market into a tax on *incomes*.

The general stress on forward shifting, and neglect of backward-shifting, in economics, is due to the disregard of the Austrian theory of value, and its insight that market price is determined *only* by the interaction of an already produced stock, with the subjective utilities and demand schedules of consumers for that stock. The market supply curve, therefore, should be

vertical in the usual supply-demand diagram. The standard Marshallian forward-sloping supply curve illegitimately incorporates a time dimension within it, and it therefore cannot interact with an instantaneous, or freeze-frame, market demand curve. The Marshallian curve sustains the illusion that higher cost can directly raise prices, and not only indirectly by reducing supply. And while we may arrive at the same conclusion as Marshallian supply-curve analysis for a particular excise tax, where partial equilibrium can be used, this standard method breaks down for general sales taxation.

Conclusion: The Amount vs. the Form of Taxation

We conclude with the observation that there has been far too much concentration on the *form*, the type of taxation, and not enough on its total amount. The result has been endless tinkering with *kinds* of taxes, coupled with neglect of a far more critical question: *how much* of the social product should be siphoned away from the producers? Or, how much income should be retained by the producers and how much income and resources coercively diverted for the benefit of non-producers?

It is particularly odd that economists who proudly refer to themselves as advocates of the free market have in recent years led the way in this mistaken path. It was allegedly free market economists for example, who pioneered in and propagandized for, the alleged Tax Reform Act of 1986. This massive change was supposed to bring us "simplification" of our income taxes. The result, of course, was so simple that even the IRS, let alone the fleet of tax lawyers and tax accountants; has had great difficulty in understanding the new dispensation. Peculiarly, moreover, in all the maneuverings that led to the Tax Reform Act, the standard held up by these economists; a standard apparently so self-evident as to need no justification; was that the sum of tax changes be "revenue neutral." But they never told us what is so great about revenue neutrality. And of course, by cleaving to such a standard, the crucial question of total revenue was deliberately precluded from the discussion.

Even more egregious was an early doctrine of another group of supposed free-market advocates, the supply-siders. In their original Laffer-curve manifestation, now happily consigned to the dustbin of history, the supply-siders maintained that the tax rate that maximizes tax revenue is the "voluntary" rate, and a rate

that should be diligently pursued. It was never pointed out in what sense such a tax rate is "voluntary," or what in the world the concept of "voluntary" has to do with taxation in the first place. Much less did the supply-siders in their Lafferite form ever instruct us why we must all uphold maximizing government revenue as our beau ideal. Surely, for free-market proponents, one might think that *minimizing* government depredation of the private product would be a bit more appealing.

It is with relief that one turns for a realistic as well as a genuine free-market approach to Jean-Baptiste Say, who contributed considerably more to economics than Say's Law. Say was under no illusion that taxation is voluntary nor that government spending contributes productive services to the economy. Say pointed out that, in taxation, "The government exacts from a taxpayer the payment of a given tax in the shape of money. To meet this demand, the taxpayer exchanges part of the products at his disposal for coin, which he pays to the tax-gatherers." Eventually, the government spends the money on its own needs, so that "in the end . . . this value is consumed; and then the portion of wealth, which passes from the hands of the taxpayer into those of the tax-gatherer, is destroyed and annihilated." Note, that as in the case of the later Calhoun, Say sees that taxation creates two conflicting classes, the taxpayers and the tax-gatherers. Were it not for taxes, the taxpayer would have spent his money on his own consumption. As it is, "The state . . . enjoys the satisfaction resulting from that consumption."

Say proceeds to denounce the "prevalent notion, that the values, paid by the community for the public service, return it again . . . ; that what government and its agents receive, is refunded again by their expenditures." Say angrily comments that this "gross fallacy . . . has been productive of infinite mischief, inasmuch as it has been the pretext for a great deal of shameless waste and dilapidation." Oh the contrary, Say declares, "the value paid to government by the taxpayer is given without equivalent or return; it is expended by the government in the purchase of personal service, of objects of consumption."

Say goes on to denounce the "false and dangerous conclusion" of economic writers that government consumption increases wealth. Say noted bitterly that "if such principles were to be found only in books, and had never crept into practice one might suffer them without care or regret to swell the monstrous heap of printed absurdity." But unfortunately, he noted, these

notions have been put into "practice by the agents of public authority, who can enforce error and absurdity at the point of a bayonet or mouth of the cannon."[13] Taxation, then, for Say is

> the transfer of a portion of the national products from the hands of individuals to those of the government, for the purpose of meeting the public consumption of expenditure . . . It is virtually a burthen imposed upon individuals, either in a separate or corporate character, by the ruling power . . . for the purpose of supplying the consumption it may think proper to make at their expense.[14]

But taxation, for Say, is not merely a zero-sum game. By levying a burden on the producers, he points out, taxes, over time, cripple production itself. Writes Say:

> Taxation deprives the producer of a product, which he would otherwise have the option of deriving a personal gratification from, if consumed . . . or of turning to profit, if he preferred to devote it to an useful employment . . . [T]herefore, the subtraction of a product must needs diminish, instead of augmenting, productive power.

J. B. Say's policy recommendation was crystal clear and consistent with his analysis and that of the present paper. "The best scheme of [public] finance is, to spend as little as possible; and the best tax is always the lightest."[15] What conclusion can be more fitting for April 15?

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[1] In 1619, Father Pedro Fernandez Navarrete, "Canonist Chaplain and Secretary of his High Majesty," published a book of advice to the Spanish monarch. Sternly advising a drastic cut in taxation and government spending, Father Navarrete recommended that, in the case of sudden emergencies, the king rely solely on soliciting voluntary donations. Alejandro Antonio

Chafuen, *Christians for Freedom: Late Scholastic Economics* (San Francisco: Ignatius Press, 1986), p. 68.

[2] It is particularly poignant, on or near any April 15, to contemplate the dictum of Father Navarrete, that "the only agreeable country is the one where no one is afraid of tax collectors," Chafuen, *Christians for Freedom*, p. 73. Also see Murray N. Rothbard, "Review of A. Chafuen, *Christians for Freedom: Late Scholastic Economics*," *International Philosophical Quarterly* 28 (March 1988): 112–14.

[3] See, for example, Irving and Herbert N. Fisher, *Constructive Income Taxation* (New York: Harper, 1942).

[4] For a fuller treatment, and a discussion of who is being robbed by *whom*, see Murray N. Rothbard, *Power and Market: Government and the Economy*, 2nd ed. (Kansas City: Sheed Andrews & McMeel, 1977), pp. 120–21.

[5] See Murray N. Rothbard, *Man, Economy, and State: A Treatise on Economic Principles*, 2nd ed. (Los Angeles: Nash, 1970), 2, pp. 791–92; idem, *Power and Market*, pp. 84–88, 14–16. Cf. John C. Calhoun, *A Disquisition on Government* (New York: Liberals Arts Press, 1953), pp. 16–18.

[6] See the illuminating article by Roger W. Garrison, "West's 'Cantillon and Adam Smith': A Comment," *Journal of Libertarian Studies* 7 (Fall 1985): 291–92.

[7] See Rothbard, *Power and Market*, pp. 98–100.

[8] We omit here the fascinating question of how *government's* activities should be treated in national income statistics. See Rothbard, *Man, Economy, and State*, 2, pp. 815–20; idem, *Power and Market*, pp. 199–201; idem, *America's Great Depression*, 4th ed. (New York: Richardson & Snyder, 1983), pp. 296–304; Robert Batemarco, "GNP, PPR, and the Standard of Living," *Review of Austrian Economics* 1 (1987): 181–86.

[9] We set aside the fact that, at the lower amount of money assets left to him, Jones's time preference *rate*, given his time preference schedule, will be higher, so that his consumption will be higher, and his savings lower, than we have assumed.

[10] In fact, per note 9, *supra*, there will be a shift *in favor of* consumption because a diminished amount of money will shift the taxpayer's time preference rate in the direction of consumption. Hence, paradoxically, a pure tax on consumption will and up taxing savings *more* than consumption! See Rothbard, *Power and Market*, pp. 108–11.

[11] If net income is defined as gross income minus amount paid in taxes, and for Jones, consumption is 90 percent of net

income, a 20 percent consumption tax on $100,000 income will be tantamount to a 15 percent tax on this income. Rothbard, *Power and Market*, pp. 108–11. The basic formula is that *net income*,

$$N = G / (1 + tc)$$

where G = gross income, t = the tax rate on consumption, and c, consumption as percent of net income, are givens of the problem, and N = G - T by definition, where T is the amount paid in consumption tax.

[12] Rothbard, *Power and Market*, pp. 88–93. Also see the notable article by Harry Gunnison Brown, "The Incidence of a General Sales Tax," in *Readings in the Economics of Taxation*, R. Musgrave and C. Shoup, eds. (Homewood, Ill.: Irwin, 1959), pp. 330–39.

[13] Jean-Baptiste Say, *A Treatise on Political Economy*, 6th ed. (Philadelphia: Claxton, Remsen & Haffelfinger, 1880), pp. 412–15. Also see Murray N. Rothbard, "The Myth of Neutral Taxation," *Cato Journal* 1 (Fall 1981): 551–54.

[14] Say, *Treatise*, p. 446.

[15] Ibid., p. 449.

Mises and Hayek on Calculation and Knowledge

Leland B. Yeager

Calculation versus Knowledge

Several Austrian economists have recently introduced an emphatic distinction between calculation problems and knowledge problems besetting socialism. F. A. Hayek, they suggest, has shoved aside or perverted the analysis that Ludwig von Mises got straight in the first place. Especially now that experience in Eastern Europe bears out the arguments of Mises and Hayek, it is important to face the issue of the supposed tension between their positions.

"While Mises saw calculation as *the* problem of socialism," says Jeffrey Herbener (1991, p. 43), "Hayek views it as a knowledge problem." "Mises demonstrated that even with *perfect* information, the central planners in socialism cannot rationally calculate how to combine resources to render efficient production."

According to Joseph Salerno, "Mises unswervingly identified the unique and insoluble problem of socialism as the impossibility of calculation—not, as in the case of F. A. Hayek, as an absence of an efficient mechanism for conveying knowledge to the planners" (Postscript 1990, p. 59, in a section entitled "Mises vs. the Hayekians"). The "Hayekian position criticizing the relative inefficiency of nonmarket mechanisms for discovery, communication, and use of knowledge in the allocation of productive resources" is "categorically different" from the Misesian critique (Ibid., p. 64).

"For Hayek, the major problem for the socialist planning board is its lack of *knowledge*," says Murray Rothbard. Hayek's "argument for the free economy and against statism rests on an argument from ignorance." For Mises, however, the central problem is not "knowledge." Even if the planners had perfect knowledge of consumers' value priorities, of resources, and of technologies, "they *still* would not be able to calculate, for lack of a price system of the means of production. The problem is not

knowledge, then, but calculability." The "role of the *appraising entrepreneur*, driven by the quest for profits and the avoidance of losses, . . . cannot be fulfilled by the socialist planning board, for lack of a market in the means of production. Without such a market, there are no genuine money prices and therefore no means for the entrepreneur to calculate and appraise in cardinal monetary terms" (Rothbard 1991 in a section on "Fallacies of Hayek and Kirzner," pp. 65–68).

An Untenable Distinction

I question the supposed distinction between calculation and knowledge problems. Mises's own writings, writings of several other interpreters, and my own long acquaintance with the ideas of both Mises and Hayek warrant this question. Beyond citing actual words, I appeal to a heuristic principle of textual interpretation. A writer should be accorded the presumption—defeasible, to be sure—that his arguments cohere in their main lines and are not downright preposterous.

Hayek studied under Mises, though only informally. He once worked for him in a temporary Austrian government office and later was a member of Mises's private seminar. He testifies to the great impact that Mises's *Socialism* had on his own thinking (Foreword to Mises 1981). Hayek's essays on socialist calculation and on the use of knowledge in society (several of them collected in his books of 1935 and 1949) develop and elaborate on insights that were at least implicit in Mises's formulations.

Most briefly, for Mises "[t]he problem of socialist economic calculation is precisely this: that in the absence of market prices for the factors of production, a computation of profit or loss is not feasible" (Mises 1963, p. 705).

But what is the problem that genuine prices help solve? In large part, on my reading of both Mises and Hayek, it is lack of the information (as well as of the incentives) that prices would convey. I cannot believe Mises was merely saying that *if* the socialist planners possessed in some remarkable way all the information normally conveyed by genuine market prices, they still would be stymied by inability to perform *calculations* in the narrow arithmetical sense, an inability that advances in supercomputers might conceivably overcome. Such a reading of Mises's arguments would caricature and trivialize them.

Economic Calculation

Let us review what economic calculation means and what functions prices perform. (To remind readers briefly of familiar points, I omit elaborations and qualifications that might be necessary to forestall objections; see Yeager and Tuerck 1966, chap. 2.)

Ultimately, additional units of any product cost foregoing other products or benefits that might have been chosen instead. Technology and the scarcity of resources pose the need to choose among alternative patterns of production as rival and practically unlimited desires compete for those resources. The other side of the same coin is choosing how to allocate scarce resources among different lines of production.

How might a definite plot of city land be used most advantageously—as a wheat field, a parking lot, a site for a swimming pool or hotel or office or apartment building, or what? By the logic of the price system, this resource goes under the control of whoever will pay the most. In bidding for its use, business firms estimate how much it can contribute, however indirectly, to producing goods and services that consumers want and will pay for. How much value it can contribute depends not only on physical facts of production but also on the selling price of each of the possible final products, and this price depends in turn partly on opportunities to produce the product in other ways. Wheat grown on cheaper land elsewhere would keep anyone who wanted to use city land to grow wheat from affording to bid highest for it. Not only natural resources but also capital, labor, and entrepreneurial ability thus move into lines of production where they contribute most to satisfying consumer needs and wants, satisfactions being measured by what consumers will pay for them.

Another example concerns public transportation in a particular city. (Compare Mises's example of building a railroad; 1990, pp. 24–25). Should it be supplied by buses burning gasoline, by electric streetcars, in some different way, or not at all? The economically efficient answer depends on more than technology and the physical availability of inputs. It depends also on substitutabilities and complementarities among inputs, on alternative uses of those inputs, and on consumers' subjective appraisals of various amounts of the various outputs of those alternative uses, as well as on appraisals of various amounts of various kinds of public and private transportation. The economically efficient answer even to the relatively simple question of local transportation depends, in short, on

unimaginably wide ranges of information conveyed, in abbreviated form, by prices.

Ideally, in a competitive economy, the price of each product measures not only how consumers appraise it at the margin but also what the total is of the prices of the additional resources necessary to supply an additional unit of it. These prices, in turn, measure what those resources contribute at the margin to values of output in their various uses (as ultimately appraised by consumers) and so measure the values other outputs sacrificed by not using the resources for them instead. Prices therefore tell the consumer how much worth of other things must be forgone to supply him with each particular product. With necessary alternatives brought to his attention in this way, each consumer ideally leaves no opportunity unexploited to increase his expected total satisfaction by diverting any dollar from one purchase to another. In this sense consumers choose the pattern of production and resource-use that they prefer. Ideally, their bidding sees to it that no Unit of a resource goes to satisfy a less intense effective demand to the denial of a more intense one.

Mises asks whether central planners, in the absence of and replacing a genuine market, could achieve such a result. This result goes beyond physical meshing of activities as portrayed by a self-consistent input-output table, Even mere physical consistency is itself almost impossible to achieve in the absence of genuine markets and prices, as Soviet experience illustrates (tractors idle for lack of spare parts, food rotting for lack of transport, and so forth). But correct economic calculation is a still more demanding task.

This distinction is close to the surface throughout Mises's discussions of economic calculation. It is evident in his distinction between "technical rationality" and "economic rationality" and in his remark that "technical calculation" is not enough to achieve "general and technological expediency" (1920/1990, p. 48). (Georg Halm says more about economic versus mere technical considerations in Hayek 1935, pp. 173, 187. Compare Hoff 1981, p. 295: "The question . . . is not whether factories can be built and efficiently conducted, but whether the factors of production could have been put to a more advantageous use by employing them elsewhere.")

Economic calculation takes physical relations info account, and far more besides. It takes into account the available quantities of various resources and possibilities of expanding them, the technology of input-output relations, and the physical

complementarities and substitutabilities of various resources in various lines of production. But it also takes into account the subjectively perceived unpleasantnesses and amenities of different kinds of work, changes in the perceived disutilities of work and in the utilities of goods and services as their amounts increase, and complementarities and substitutabilities of various goods and services perceived by consumers. Ideally, the result of successful economic calculation—which, to repeat, takes all sorts of subjective as well as physical considerations into account—is a state of affairs in which no further rearrangement of patterns of production and resource use could achieve an increase of value to consumers from any particular good at the mere cost of a lesser sacrifice of value from some other good. (A fuller discussion would introduce the concept of Pareto optimality at this point and explain why some distributional principle is also necessary to narrow a multiplicity of optima down to one. The leading distributional principle in a free-market economy, much modified, is that persons receive the values that the services of themselves and their property command on the market.)

What Mises Meant

Mises's central message, as it comes across to me, is an explanation of why a central planning authority could not accomplish its task and why it must be accomplished, if at all, on a decentralized basis. Mises explains the indispensable role of genuine prices established on genuine markets where traders exchange privately owned goods and services, including capital goods and other productive resources.

Was Mises conceding that information might conceivably somehow be made available to a central planning board in complete and utter detail, including the quantities and supply functions of all productive resources at all locations, all production functions in actual or even potential use, and all utility functions of all persons? Was he supposing, furthermore, that all the mathematical forms and all the parameters of all these functions are precisely known, so that these quantities and functions already imply the marginal productivities of all factors, the marginal technical rates of substitution among all factors and all products, and the marginal utilities of and marginal subjective rates of substitution between all goods and services for all productive units and all persons at each of all conceivable quantitatively specific patterns of production and resource

allocation? Was Mises conceding that the planners might conceivably assemble all of this unimaginably detailed information? Was he balking only at the next step, denying that they could use all of it to calculate a pattern of production and resource allocation that would in some sense be optimal? Was Mises conceding everything about the centralized availability of information and then balking only at the possibility of dumping it all into a computer and performing a vast exercise in programming? Does his whole argument boil down to a contention about arithmetic?

No, of course not. Mises would have thought it preposterous that the planners could even arrive at the threshold of the massive exercise in arithmetic. He was referring to *economic* calculation. The whole sweep of his writings about socialism shows that he was concerned to illuminate the immensity of the problem of achieving an economically rational pattern of production and resource allocation, a problem that market processes do tend to solve. He understood why central planners could not adequately replace them.

Statics or Dynamics?

A subsidiary question concerns whether Mises saw the problem of economic calculation as besetting only a dynamic world, one in which the functions of entrepreneurship must be performed (or botched) somehow or other, or as a problem that, although still more complicated in a dynamic world, would be hugely complicated enough even in a static world. Mises did like to emphasize that changes of all sorts are continually occurring and that the prices to be taken into consideration are not merely "current" prices (which are data of very recent economic history) but also future prices, as best they can be conjectured by entrepreneurial insight. He understood the role of speculation in the broadest sense, including the function undertaken by capitalists and entrepreneurs who speculate not only on prices but also on innovations in markets, products, and production methods and who, instead of merely playing games, are staking their own careers and fortunes. He knew that business firms, far from just being given (as they typically are just postulated in the textbooks), are continually appearing, disappearing, merging, and splitting; these reorganizations are essential features of a dynamic economy.

On the second suggested interpretation, Mises perceived the

calculation problem *even* for a static world, a problem that initial discussion in a static context would shed light on. Apparent support for each interpretation occurs in writings of Mises himself and of commentators such as Rothbard and Salerno.

A passage in *Socialism* suggests how to resolve or dissolve the issue:

> [U]nder stationary conditions the problem of economic calculation does not really arise. . . . all the factors of production are already used in such a way as, under the given conditions, to provide the maximum of the things which are demanded by consumers. That is to say, under stationary conditions there no longer exists a problem for economic calculation to solve. The essential function of economic calculation has *by hypothesis* already been performed. There is no need for an apparatus of calculation. . . . the problem of economic calculation is of economic dynamics: it is no problem of economic statics. (1922/1981, p. 120; compare Mises 1920/1990, p. 25)

Mises evidently means this: In a static economy, *by definition*, everything rotates around in the same old ruts. No need or scope exists for recalculating those ruts; breaking out of them would violate the assumption of a static state. But a static state does presuppose that economic calculation has already been performed. (It would have had to take account of the vast changes entailed by the very shift from capitalism to socialism.) Even from a background of unchanging "wants, resources, and technology," calculation is necessary to arrive at the pattern of production and resource allocation that thereafter, by the very definition of "static economy," need not and cannot be recalculated.

In short, a dynamic world immensely complicates the task of economic calculation that would be hugely complicated even in —meaning even to arrive at—a static state.

Mises's Words Supporting My Interpretation

Many passages in Mises's writings recognize the knowledge aspect of the calculation problem. Already in 1920 (1920/1990, pp. 17–18) he wrote that "administrative control over economic goods . . . entails a kind of intellectual division of labor, which

would not be possible without some system of calculating production and without economy." Well, intellectual labor involves knowledge, and division of labor means leaving at least some knowledge, and action on it, decentralized. It is noteworthy that Hayek draws explicit attention to the original German version of this passage (in a talk of 1936 reprinted in Hayek 1949, p. 50 and footnote).

Again in 1920 Mises mentioned the task of gaining a "complete picture" of economic complexities. Technical calculation is not enough to

> guide us in those judgments which are demanded by the economic complex as a whole. Only because of the fact that technical considerations can be based on profitability can we overcome the difficulty arising from the complexity of the relations between the mighty system of present-day production on the one hand and demand and the efficiency of enterprises and economic units on the other; and can we gain the complete picture of the situation in its totality, which rational economic activity requires. (1920/1990, pp. 48–49)

An intellectual grasp of the whole would be possible in a small household economy, Mises recognizes, but not in a large and complex social economy. Deciding how "to place the means at the service of the end . . . can only be done with some kind of economic calculation. The human mind cannot orientate itself properly among the bewildering mass of intermediate products and potentialities of production without such aid. It would simply stand perplexed before the problems of management and location" (1920/1990, p. 19). As these words suggest, "economic calculation" means something more than an arithmetical exercise, however massive.

Human Action tells us that "knowledge provided by the natural sciences," "the mere information conveyed by technology," is insufficient for "the economic problem: to employ the available means in such a way that no want more urgently felt should remain unsatisfied because the means for its attainment were employed—wasted—for the attainment of a want less urgently felt. . . . What acting man wants to know is how he must employ the available means for the best possible—the most economic—removal of felt uneasiness" (1963, pp. 206–7). Again, Mises indicates that knowledge of wants, resources,

and technology must be available to decisionmakers.

Another passage in *Human Action* (1963, p. 696, partly quoted in Salerno 1990, pp. 45–46) seems at first to resist my interpretation. Mises supposes that the director of the socialist economy has already made up his mind about ultimate ends or priorities. Somehow, miraculously, everyone agrees. The director has complete and perfect information about technology and available manpower and material resources. Many experts and specialists stand ready to answer all his questions correctly. "Their voluminous reports accumulate in huge piles on his desk." Now he must choose among an infinite variety of projects in such a way that no more urgent want remains unsatisfied because the necessary means have been diverted to satisfying less urgent wants. Yet despite the vast knowledge available to him, he is unequal to the task.

It might seem, then, that the director's frustration traces to a calculation problem, not a knowledge problem. Yet does the distinction hold? The director cannot even reach the threshold of a comprehensive calculation because he cannot assimilate, all together, all the information that is available to him, in a restricted sense of the word, "in huge piles on his desk." Nor could any committee acting as a single body comprehensively assimilate it all.

If the information is to be used, it must be used in *decentralized* decisions, with prices conveying information to each decisionmaker about parts of the economy beyond his immediate purview. This, it seems to me, explains Mises's repeated insistence on genuine market prices, including prices of capital and intermediate goods. He repeatedly returned to thinking of *decentralized* decisionmaking and of the indispensable functions (including the informative function) of prices in that context. Except in a most abstract way, he could not keep on conceiving—nor can I—of a central planner or planning board having obtained all the necessary information and having *assimilated* it into a form ready for feeding into a computer for a vast programming exercise.

Nevertheless, if all relevant knowledge *could* be gathered and assimilated and all other preparations made and if the vast comprehensive calculation *could* be performed, then the immense list of results spewed from the computer would not only prescribe all input and output quantities in detail but also indicate shadow prices of all the inputs and outputs. (A modest acquaintance with linear programming makes this point about

shadow prices clear.) It would not be necessary to know the prices in advance (and the calculated prices, unlike the calculated quantities, would be of mere academic interest to the planners).

One might object that the shadow prices emerging from such a calculation would not be identical with genuine prices determined in genuine markets (nor would the associated quantities be identical with market results). This is true, but three possible replies are worth noting. First, the vast information fed into the computer might in principle include psychological data on the persons who would otherwise have been entrepreneurs and other participants in genuine markets. This data would bear on how they would have behaved in response to the opportunities and incentives confronting them in real markets. (On the other hand, it is really only a fiction convenient for economic theorists that people have preexisting and fully developed preference functions or "indifference maps" even before experience in actual markets activates them.) Second, socialists presumably do not desire results identical to those of a market economy anyway. Third, the very objection points to some of the advantages of keeping decisionmaking and the use of knowledge decentralized. It shows further recognition that the problem facing socialism would not be one of mere arithmetic.

The necessary preparations for the vast central calculation, let alone the calculation itself, could *not* be accomplished; they are, to use Mises's word, "impossible." It seems perverse, then, to interpret Mises as nevertheless conceding the possibility of all those preparations and of balking only at the possibility of the calculation itself. He was denying the possibility of *economic* calculation, not merely of *arithmetical* calculation. (Parenthetically, even if we imagine successful mobilization of the data and accomplishment of the arithmetical exercise, vast problems would remain of implementing the results and monitoring everyone's obedience to instructions. Even if the information-conveying function of genuine market prices could somehow be replaced, the incentive function would remain to be somehow performed.)

I submit, then, that even Mises's passage most amenable to the Herbener-Salerno-Rothbard interpretation does not bear out that interpretation on closer examination.

Still, one might ask, if the knowledge aspect was always implicit in his formulation, why didn't Mises make it fully

explicit? But how can one know what facts and logical implications, though obvious and as good as explicit to oneself, have escaped other thinkers? One can hardly foresee all of others' misconceptions before they become evident in debate. As Hayek says,

> Mises's arguments were not always easily apprehended. Sometimes personal contact and discussion were required to understand them fully. Though written in a pellucid and deceptively simple prose, they tacitly presuppose an understanding of economic processes—an understanding not shared by all his readers. . . . When one reads Mises's opponents, one gains the impression that they did not really see why [economic] calculation was necessary. . . . As a result [of the discussion], Mises became increasingly aware that what separated him from his critics was his wholly different intellectual approach to social and economic problems, rather than mere differences of interpretation of particular facts. (1922/1981, p. xxii)

Even so, Mises did make himself clear to quite a few readers, as I shall illustrate.

Support from Readers

Perhaps testimony from my own past self is permissible.[1] I have long had an enthusiastic interest in Mises's arguments about socialist calculation and in the ensuing debates. I first happened onto his *Omnipotent Government* and *Bureaucracy* in 1946 or 1947. I eagerly awaited *Human Action* in 1949 (having already had access to its not readily available German precursor for a couple of hours). I gave a paper on the calculation debate at a faculty seminar at Texas A & M College (now University) in November 1949. For some time, before finally choosing a different topic, I considered writing my Columbia Ph.D. dissertation on a related problem of socialism. During several years of teaching a course in general-equilibrium theory at the University of Virginia, I used Mises's argument and the whole socialist-calculation debate to illuminate general interdependence and the various tasks to be accomplished somehow or other in any economic system. The conventional wisdom about Oskar Lange's having refuted Mises's argument

never deceived me.

And I never understood that argument to be about calculation in the narrow arithmetical sense. I always understood Mises to be referring to the informational and other functions of prices that do get performed in a genuine market economy and that could not be performed or adequately replaced in a socialist economy. I always understood Hayek to be elaborating on ideas that were clearly implicit if not always totally explicit in Mises's work; I never dreamed that the issue might arise of a clash between their positions.

Hayek has long recognized Mises's concern with the use of knowledge—"of all the relevant facts." Mises, he says, provided

> the detailed demonstration that an economic use of the available resources was only possible if . . . pricing was applied not only to the final product but also to all the intermediate products and factors of production, and that no other process was conceivable which would take in the same way account of all the relevant facts as did the pricing process of the competitive market. (Hayek 1935, p. 33)

Georg Halm stated Mises's argument as follows: The socialist authority would know various things, "*but it would not know how scarce capital was*. For the scarcity of means of production must always be related to the demand for them, whose fluctuations give rise to variations in the value of the good in question" (1935, pp. 162–63, also quoted in Rothbard 1991, p. 62).

Oskar Lange, whom Mises's arguments prodded to invent a sketch of "market socialism," interpreted Mises as having traced the impossibility of rational socialist planning largely to inaccessibility of necessary "data." Lange countered that "The administrators of a socialist economy will have exactly the same knowledge, or lack of knowledge, of the production functions as the capitalist entrepreneurs have" (1938, pp. 60–61).

Lange thought he had refuted Mises by showing that an artificial market would render calculation possible, says Jacek Kochanowicz (introduction to Mises 1990, pp. xi–xii). Presumably following Mises on what calculation meant, then, Lange did not interpret it as merely accomplishing a task in arithmetic.

Incidentally, Lange (1938, p. 61) accused Mises of confusing two senses of the term "prices," "the exchange ratios of

commodities on a market" and the wider sense of "terms on which alternatives are offered." Not so: Mises did not need the distinction. He did not believe it possible to obtain meaningful prices of either kind except through genuine market processes.

Solomon Fabricant recognizes the role of knowledge in Mises's argument. "[I]n a free society, as was pointed out above all by Mises and Hayek, individuals have the authority and the incentives to use the particular knowledge which they—and only them—possess to adapt most economically to the incessant changes that go on in a dynamic world. This stock of knowledge includes detailed information that no central authority could ever hope to gather, digest and apply in formulating its plans and making its decisions" (1976, pp. 30–31; one footnote is not quoted here).

Trygve Hoff mentions knowledge in interpreting Mises's argument: Without prices for the means of production, "the central authority will lack the necessary data to determine how and in what combination the Various means of production can be put to the optimum use. . . . Without prices for means of production the central authority will have no data for determining whether the contribution and the sacrifice are greater or smaller than the result" (Hoff 1938/1981, pp. 202–3; further remarks about "data" occur on pp. 223 and 288).

Karen Vaughn attributes to Mises the "vehement assertion that the information necessary for economic calculation could be obtained only through market-determined prices." In 1935, Hayek "expanded upon Mises's original contention that economic calculation is impossible without market prices to provide relevant information." "Following Hayek and Mises, Hoff notes that . . . [a] central planning board necessarily lacks . . . vital market information" indicated by prices (Vaughn* introduction to Hoff 1938/1981, pp. xi, xvi, xxx).

Don Lavoie, writing before Rothbard, Salerno, and Herbener had tried to distinguish between the positions of Mises and Hayek, repeatedly says that they were expounding the same position. Hayek elaborated on some of Mises's points, especially ones about knowledge and on the necessity of genuine rivalrous markets for capital goods and other factors of production so that the factor prices established there could convey essential information. Contrary to the standard account of the socialist-calculation debate, Mises and Hayek did not shift their ground. They did change their emphasis to respond to suggestions for market socialism after the socialists, or some of them, had shifted

their ground.

It would be tedious to quote all the passages in which Lavoie recognizes the essential identity of Mises's and Hayek's positions. I refer the reader, in particular, to pages 15 n., 21, 24, 26, chapter 3 (entitled "Mises's Challenge: the Informational Function of Rivalry"), pages 87, 89, 91–92, 102, 114–15, 123, 145, 160–61, 173 n., 177–78, arid 180. Consider, however, these two passages: "The entrepreneurial market process . . . generates the continuously changing structure of knowledge about the more effective ways of combining the factors of production. This knowledge is created in decentralized form and dispersed through the price system to coordinate the market's diverse and independent decisionmakers. There is no way, Mises claimed, in which this knowledge can be generated without rivalry" (Lavoie 1985, p. 24). Hayek's improvements of Mises's argument "should be understood as essentially an elaboration of the meaning that Mises originally attached to his own words" (Lavoie 1985, p. 26).

Lavoie makes a useful distinction between economic *calculation*, the problem that Mises addressed, and mere *computation*, the arithmetical aspect (1985, pp. 91, 119, 122, 128, 133, 144, 160, 168 n., 182, and passim).

Yuri Maltsev hails Mises's demonstration of 1922 that

> Socialist planning . . . is *logically impossible* because the system cannot provide the knowledge required to determine which production projects are desirable and feasible and which are not. Only the market, with what Mises called its "intellectual division of labor," can generate that knowledge and put it in a usable form. (Foreword to Boettke 1990, pp. xii–xiii)

Peter Boettke repeatedly notices the role of knowledge in Mises's argument; for example:

> Implicit in Mises's logical chain of reasoning is the recognition that no one mind or group of minds could possess the necessary knowledge to plan the economic system. . . . Mises states this knowledge problem in his original challenge. . . . [A]s Mises notes, market exchange and production within a monetary economy provide for the discovery and dissemination of the knowledge necessary [for coordinating computations]. (Boettke 1990, p. 23,

and compare pp. 24, 26, 28, 123, 170–71, 195)

Joseph Persky (1991, p. 229) reads Mises as "emphasiz[ing] that a collectivist state would have great difficulty in gathering and acting on relevant information; therefore, under socialism, even well-intentioned bureaucrats would lack a meaningful system of values on which to calculate."

Robert L. Heilbroner, who had long expressed sympathy for socialism, has recently acknowledged that Mises was right all along. The few economists who early predicted disaster from central planning were led, Heilbroner says, by "Ludwig von Mises and Friedrich Hayek. . . . Their diagnosis was based on the inability of a planned system to generate the *information* needed to bring into being, or to maintain in being, a properly interlocking economic system. This information is automatically generated by a market mechanism that every day 'informs' its individual participants whether their activities are wanted by other participants or not, but no substitute for this information network, or for the motivation to put the information to work, exists in a system in which a cumbersome bureaucracy tries to play the role of a competitive marketplace" (Heilbroner 1991, p. 114, emphasis in original).

Perhaps surprisingly, Murray Rothbard also lends support to my interpretation. "The fact that in a changeless world of perfect knowledge and general equilibrium a Social Planning Board could 'solve' equations of prices and production was for Mises a worse than useless demonstration. Clearly, as Hayek would later develop at length, if complete knowledge of economic reality is assumed to be 'given' to all, including a Planning Board, there is no problem of calculation or, indeed, any economic problem at all, whatever the economic system. The Mises demonstration of the impossibility of economic calculation under socialism and of the superiority of private markets in the means of production applied only to the real world of uncertainty, continuing change, and scattered knowledge" (Rothbard 1976, p. 68).

Rothbard cites Mises's refutation of Oskar Lange's idea (1938) that a socialist planning board could arrive at correct prices, even of capital goods, through trial and error. He mentions "signals," clearly implying they convey information: "the process of trial and error works on the market because the emergence of profit and loss conveys vital signals to the entrepreneur, whereas such apprehensions of genuine profit and loss could not be made in the absence of a real market for the

factors of production" (Rothbard 1976, p. 71).

Admittedly, Rothbard seems to have changed his mind later. Yet as recently as in his 1991 article (p. 52, emphasis supplied here), he paraphrases Mises as asking the following about the socialist planners:

> How would they *know* what products to order their eager slaves to produce, at what stage of production, how much of the product at each stage, what techniques or raw materials to use in that production and how much of each, and where specifically to locate all this production? How would they *know* their costs, or what process of production is or is not efficient?

Rothbard continues recognizing the knowledge aspect of the problem:

> Mises points out that while the government may be able to know what ends it is trying to achieve, and what goods are most urgently needed, it will have no way of knowing the other crucial element required for rational economic calculation: valuation of the various means of production, which the capitalist market can achieve by the determination of money prices for all products and their factors. (1991, p. 63)

Even a perfectly knowledgeable person, says Salerno (1990, Postscript, p. 53) "would be unable to even achieve a full intellectual 'survey' of the [planning] problem in all its complexity." But doesn't this mean: unable to pull together all the scattered relevant knowledge? Salerno notes, approvingly, that Mises recognized the necessity of an "intellectual division of labor" (Ibid., p. 54). This is another allusion to the impossibility of centralizing all the scattered relevant knowledge.

Even if the planners had various other knowledge, the central planners would be unable "to ever know or guess the 'opportunity cost' of any social production process" (Ibid., p. 55).

Conclusion

Just what was Mises's position? Salerno briefly but correctly restates it: "without private ownership of the means of

production, and catallactic competition for them, there cannot exist economic calculation and rational allocation of resources under conditions of the social division of labor. In short, socialist economy and society are impossible" (Ibid., p. 66). This formulation leaves room to be amplified. It does *not* focus merely on immense arithmetic difficulties at the stage of calculation in the strictest sense of the term, conceding that the planners might accomplish their task right up to that stage. I challenge readers who insist on distinguishing between calculation and knowledge problems to find passages in which Mises can reasonably be interpreted as making that distinction and expressing concern only with calculation but not with knowledge.

To deny that Hayek was elaborating on what Mises said about economic calculation and to maintain that Hayek was saying something distinct and even incompatible is to truncate and misrepresent what Mises did say To cut away all aspects of his message on which Hayek elaborated is to trivialize his message, quite inaccurately, into a proposition about arithmetical exercises.

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[1] I thank—or blame—Roger Garrison for persuading me to shift this personal testimony from the end to the beginning of this section.

Reply to Leland B. Yeager on "Mises and Hayek on Calculation and Knowledge"

Joseph T. Salerno

In this article on "Mises and Hayek on Calculation and Knowledge," Leland Yeager argues against the view recently propounded by Murray Rothbard, Jeffrey Herbener, and myself that calculation and knowledge constitute separate and distinct problems of economic organization and that Ludwig von Mises attributed the impossibility of socialism exclusively to its inability to solve the former problem. In rebuttal, Yeager alleges that calculation, as this term is used by Salerno, Rothbard, and Herbener (henceforward, SRH) refers narrowly to a trivial arithmetic operation and that it is, therefore, preposterous and a violation of a putative principle of hermeneutics, i.e., "a heuristic principle of textual interpretation," to identify, as SRH do, calculation in this sense as the crux of Mises's critique of socialist central planning.

Yeager seeks to buttress his hermeneutical case by arguing that if the knowledge problem is solved, i.e., if the central planners are miraculously endowed with knowledge of all previously discovered production functions currently used or potentially useful, in addition to exhaustive and minutely detailed information regarding the quantities, qualities, and locations of existing resources and the global set of consumer value scales (comprehensively defined to include leisure and time preferences as well as preferences for the various types of labor), then all that remains to be done to effect a rational or "Pareto optimal" allocation of resources is to address a relatively tractable problem in linear programming that can be solved using a supercomputer. Yeager thus claims to be logically confirmed in his conclusion that, in dismissing the knowledge problem from consideration, SRH are construing the calculation problem in a limited and trifling sense that "trivializes and caricatures" Mises's critique of socialism.

There is not much to say about Yeager's main allegation, except that it is wholly beside the point, because it rests on a

gross misinterpretation of the meaning explicitly attached to the term "calculation problem" by SRH. It is true that as SRH use the term "economic calculation" it encompasses and culminates in arithmetic computations undertaken to identify the most valuable employments of scarce resources in an economy characterized by specialization and division of labor, e.g., the profit calculations of entrepreneurs operating in a market economy. However, it does not follow that, for SRH, *the* calculation problem as Mises conceived it refers narrowly to the mathematical techniques employed for manipulating the given quantitative data; it refers, instead, to the origination and meaningfulness of the data themselves. It is, in short, a problem of "appraisement" and not of "arithmetic."

As SRH have repeatedly emphasized, the Misesian demonstration of the logical impossibility of socialism is not predicated on the central planners' incapacity to perform tasks that can conceivably be carried out by individual human minds (e.g., discovery of factual and technical knowledge, mathematical computations, managerial monitoring, and prevention of labor shirking, etc.). Rather, it is concerned with the lack of a genuinely competitive and social market process in which each and every kind of scarce resource receives an objective and quantitative price appraisement in terms of a common denominator reflecting its relative importance in serving (anticipated) consumer preferences. This social appraisement process of the market transforms the substantially qualitative knowledge about economic conditions acquired individually and independently by competing entrepreneurs, including their estimates of the incommensurable subjective valuations of individual consumers for the whole array of final goods, into an integrated system of objective exchange ratios for the myriads of original and intermediate factors of production. It is the elements of this coordinated structure of monetary price appraisements for resources in conjunction with appraised future prices of consumer goods which serve as the data in the entrepreneurial profit computations that must underlie a rational allocation of resources.

That appraisement and not arithmetic constitutes the essence of the calculation problem is clearly indicated in numerous passages from the works of Salerno and Rothbard cited by Yeager. Unfortunately, Yeager ignores these key passages. For example, in one of my articles (Salerno 1990a, pp. 54–56) quoted by Yeager, I identify the crucial bearing of

entrepreneurial competition in resource markets on the problem of economic calculation:

> In this competitive process, each and every type of productive service is objectively appraised in monetary terms according to its ultimate contribution to the production of consumer goods. There thus comes into being the market's monetary price structure, a genuinely "social" phenomenon in which every unit of exchangeable goods and services is assigned a socially significant cardinal number and which has its roots in the minds of every single member of society yet must forever transcend the contribution of the individual human mind.
>
> Since the social price structure is continually being destroyed and recreated at every moment of time by the competitive appraisement process operating in the face of ceaseless change of the economic data, there is always available to entrepreneurs the means of estimating the costs and revenues and calculating the profitability of any thinkable process of production.
>
> Once private property in the nonhuman means of production is abolished, however, as it is under socialism, the appraisement process must grind to a halt. . . . In the absence of competitive bidding for productive resources by entrepreneurs, there is no possibility of assigning economic meaning to the amalgam of potential physical productivities embodied in each of the myriad of natural resources and capital goods in the hands of the socialist central planners. . . .
>
> A society without monetary calculation, that is, a socialist society, is therefore quite literally a society without an economy.

Later in the same work (Salerno 1990a, pp. 62–63), I portray the Misesian case against market socialism in similar terms:

> From the Misesian point of view . . . the shortcomings of the prices of market socialism do not stem from the fact that such prices are supposed to be treated as "parametric" by the managers. . . .

> The problem is precisely that such prices are *not* genuinely parametric from the point of view of all members of the social body. The prices which emerge on the free market are meaningful for economic calculation because and to the extent that they are determined by a social appraisement process, which, though it is the inevitable outcome of the mental operations of all consumers and producers, yet enters as an unalterable fact in the buying and selling plans of every individual actor.

It is obvious from the foregoing passages that I conceive appraisement as neither knowledge nor arithmetic, but as something new under the sun, introduced into the world only when the institutional prerequisites of a market economy are fulfilled. The social process of appraising thus transcends the purely individual operations of knowing and computing at the same time that it complements them in creating the indispensable conditions for rational choosing by entrepreneurs and resource owners cooperating in the division of labor. In fact, in another work cited by Yeager, I specifically refer to Mises's distinction between "cardinal numbers and their arithmetic properties [which] are 'eternal and immutable categories of the human mind'" and "economic calculation [which] is 'only a category inherent in acting under special conditions'" (Salerno 1990b, p. 45).

In explicating what I take to be Mises's view, then, I clearly do not contend that the advent of socialism suddenly and mysteriously renders men unable to perform arithmetic operations. Rather, it is and always has been my contention that socialism abolishes the *quantitative appraisement* of means without which man's computational skills and his knowledge of particular facts and general technical rules would be completely useless in guiding production within the framework of the social division of labor. As I conclude in the latter article "It is because socialism lacks the means to calculate, therefore, that Mises emphatically denies that men 'are free to adopt socialism without abandoning economy in the means of production'. . . . In fact Mises conceived *the* social advantage of the price system to be that it made practicable human society itself by providing the cardinal numbers for computing the costs and benefits of purposive action undertaken within the social division of labor" (Salerno 1990b, p. 48).

I also indicate that Mises's concept of "the intellectual division of labor" refers to the necessity of the existence of independent intellects and wills—of capitalist-entrepreneurs, laborers, landowners, and consumers—for the quantitative appraisement of the means of social action (Salerno 1990b, pp. 41–42). In contrast, Yeager construes Mises's concept as an embryonic version of Hayek's "division of knowledge." Thus, Yeager (p. 97) draws the wrong conclusion from his important insight that "intellectual labor involves knowledge, and division of labor means leaving at least some knowledge, and action on it, decentralized." A price system is not required because useful knowledge is dispersed, as Yeager infers from this insight; rather, knowledge must be decentralized (among competing entrepreneurial forecasters and appraisers) in order for a system of prices to come into being which meaningfully indicates the relative scarcities of useful resources. Or, to put it more starkly, dispersed knowledge is not a bane but a boon to the human race; without it, there would be no scope for the intellectual division of labor, and social cooperation under division of labor would, consequently, prove impossible. Thus, a world exactly like our own but ruled by a perfectly beneficent and "empathie" overlord, who, in Star Trekian fashion, could, fully and instantaneously, mentally assimilate his subjects' subjective valuations and knowledge, would be unable to develop a sophisticated structure of capital and production for lack of a means of appraisement.

Rothbard, also, in his articles referred to by Yeager, is pellucidly clear that the calculation problem identified by Mises goes far beyond a piddling arithmetic problem. As well, it involves far more than the difficulty of acquiring qualitative information about previously prevailing market conditions. As Rothbard (1991, p. 66) writes:

> The problem is not knowledge . . . but calculability. [T]he *knowledge* conveyed by present—or immediate "past"—prices is consumer valuations, technologies, supplies, etc. of the immediate or recent past. But what acting man is interested in, in committing resources into production and sale, is *future* prices, and the present committing of resources is accomplished by the entrepreneur, whose function is to *appraise*—to anticipate—future prices, and to allocate resources accordingly. It is precisely this central and vital role of the *appraising*

> *entrepreneur*, driven by the quest for profits and the avoidance of losses, that cannot be fulfilled by the socialist planning board, for lack of a market in the means of production. Without such a market, there are no genuine money prices and therefore no means for the entrepreneur to calculate and appraise in cardinal monetary terms.

In a second article quoted from by Yeager, Rothbard (1992, p. 20) nicely epitomizes the SRH interpretation of economic calculation: "the prices provided by the market, especially the prices of means of production, are a *social* process, available to all participants, by which the entrepreneur is able to appraise and estimate future costs and prices. In the market economy, *qualitative* knowledge can be transmuted, by the free price system, into rational economic calculation of *quantitative* prices and costs, thus enabling entrepreneurial action on the market."

Given the weighty textual evidence I have adduced above to counter his claim that SRH construe the calculation problem as one of arithmetic, Yeager appears to be transgressing against his own hermeneutical principle of refraining from attributing preposterous and incoherent positions to one's opponents without having fully and sympathetically engaged their arguments. Nevertheless, I do not believe that it would be fair or accurate to ascribe Yeager's palpable misreading of SRH's position to unrestrained eagerness to seize a polemical advantage or to shoddy scholarship. Rather, I believe that the source of Yeager's erroneous characterization of our position lies in his static view of the function of prices and economic calculation. This view is revealed in the logical argument he advances to deny any but the most trivial distinction between knowledge and calculation, an argument intended to bolster his textually unsupported claim that SRH equate calculation and arithmetic.

In the section on "Economic Calculation," which precedes and introduces his own rendering of "What Mises Meant," Yeager (pp. 92–95) delineates his view of the functions performed by prices. Proceeding in a Hayekian vein, Yeager characterizes market prices as a substitute for the perfect knowledge that is assumed by neoclassical theorists to be possessed by all market participants. However, as I have argued elsewhere (Salerno 1993, pp. 126–29), for prices to perform such a knowledge-disseminating function, it is necessary for the economy to already subsist in a quasi-static state or what I have dubbed

"proximal equilibrium" (PE), wherein genuine uncertainty and the need for entrepreneurial appraisement are absent and current prices are an approximately correct guide to future prices. Indeed, this is the view taken by Hayek (1978, p. 82) himself, who writes that "the function of prices is precisely to communicate, as rapidly as possible, signals of changes of which the individual cannot know but to which his plans must be adjusted. This system works because on the whole current prices are fairly reliable indications of what future prices will probably be." Elsewhere, Hayek (1940, pp. 27–28) argues that "real conditions . . . do to some extent so approximate [towards a state of equilibrium], and . . . the functioning of the existing economic system will depend on the degree to which it approaches such a condition."

Yeager does not shrink from the PE implications of the Hayekian description of the function of prices. Indeed, he embraces them wholeheartedly, arguing that economic calculation employing knowledge-laden prices functions "ideally" to maintain the economic system in competitive long-run equilibrium characterized by a Pareto-optimal allocation of resources. Yeager's argument is encapsulated in the following four statements extracted from his section on "Economic Calculation" (Yeager, pp. 92–95):

> "*Ideally*, in a competitive economy, the price of each product measures not only how consumers appraise it at the margin but also what the total is of the prices of the additional resources necessary to supply an additional unit of it [i.e., $P_i = MC_i$]."
>
> "Each consumer *ideally* leaves no opportunity unexploited to increase his expected total satisfaction by diverting any dollar from one purchase to another [i.e., $MU_1/P_1 = MU_2/P_2 = \ldots = MU_n/P_n$, implying perfect arbitrage of individual commodity prices and the overall purchasing power of money]."
>
> "*Ideally*, [consumers'] bidding sees to it that no unit of a resource goes to satisfy a less intense effective demand to the denial of a more intense one [i.e., $P^F_j = MVP_j$]."
>
> "*Ideally*, the result of successful economic calculation . . . is a state of affairs in which no further rearrangement of patterns of production and

> resource use could achieve an increase of value to consumers from any particular good at the mere cost of a lesser sacrifice of value from some other good [i.e., $P_i = AC_i$]. (A fuller discussion would introduce the concept of Pareto optimality at this point.)"[1]

Yeager's repetition of the term "ideally" in this context, which I have emphasized, is apparently intended to connote that the outcome of the "real" economic process only approximates the "ideal" of Pareto optimality.[2] Yeager goes on to impute this static conception of the function of economic calculation to Mises, despite his recognition that "Mises did like to emphasize that changes of all sorts are continually occurring and that the prices to be taken into consideration are not merely 'current' prices (which are the data of very recent economic history) but also future prices, as they best can be understood by entrepreneurial conjecture" (Yeager, p: 96). After this grudging admission, however, Yeager (p. 97) proceeds to relegate such dynamic considerations, in the fashion of classical economics, to the status of "frictions" or "disturbing causes" that "immensely complicate" but do not alter the main task of economic calculation, which is to point the way to the ideal resource allocation of the static state.

We can now explain why Yeager refuses to distinguish between calculation and knowledge and why he misses the significance of the distinction drawn by SRH. With the economy always in PE and current prices therefore conveying to producers virtually complete knowledge about relevant economic conditions in the present and the future, the only function that remains for entrepreneurs is to robotically compute revenue and cost functions and allocate resources so as to equate MR and MC. Since the acquisition and use of knowledge is thus presented as the essence of economic calculation, should the central planners somehow or other get hold of the same knowledge in the absence of a price system, the entrepreneurial computation problem could be easily solved by the methods of linear programming, which would yield the identical (Pareto-optimal) allocation of resources. This is the implication of Hayek's statement that the price system "brings about the solution which (it is just conceptually possible) might have been arrived at by one single mind possessing all the information which is in fact dispersed among all the people involved in the process" (Hayek 1972, p.

86).

For Yeager, Hayek, and equilibrium theorists of all stripes, then, an appraisement process is not necessary because, in the words of general equilibrium (GE) theorist J. R. Hicks (quoted in Walsh and Gram 1980, pp. 241, 179),

> the price mechanism is something that is inherent. It did not have to be . . . brought in from outside. . . . It has been made apparent [by linear programming theorists], not only that a price system is inherent in the problem of maximizing production from given resources but also that something like a price system is inherent in any problem of maximizing production against restraints. The imputation of prices (or "scarcities") to the factors of production is nothing else but a measurement of the intensities of the restraints; such intensities are always implicit—the special property of a competitive [price] system is that it brings them out and makes them visible. . . . If we take the famous definition, given so many years ago by Lord Robbins—'the relationship between ends and scarce means that have alternative uses'—economics, in that sense, is well covered by linear theory.

This reasoning, of course, also underlies the position taken by neoclassically-trained market socialists such as Oskar Lange. In a posthumously published reflection on his contribution to the socialist calculation debate, Lange (1974, p. 137) wrote:

> The market process with its cumbersome *tatonnements* appears old-fashioned. Indeed, it may be considered as a computing device of the pre-electronic era.
>
> The market mechanism and trial and error procedure proposed in my [original] essay really played the role of a computing device for solving a system of simultaneous equations. The solution was found by a process of iteration which was assumed to be convergent. . . .
>
> The same process can be implemented by an electronic analogue machine which simulates the iteration process implied in the *tatonnements* of the market mechanism. Such an electronic analogue

> (servo-mechanism) simulates the working of the market. This statement, however, may be reversed: the market simulates the electronic analogue computer. In other words, the market may be considered as a computer *sui generis* which serves to solve a system of simultaneous equations.

Thus market-oriented PC theorists, such as Hayek and Yeager, and neoclassical/socialist GE theorists are brothers under the skin. The former, who according to Yeager include Mises, ultimately do not gainsay the claim of the latter that the price system is "in" the data and that the market performs essentially the same function as an equation-solving computer. All of Hayek's subtle argumentation in his classic triad of articles on knowledge (Hayek 1972a; Hayek 1972b; Hayek 1972c) amounts only to the denial that all the relevant dam could ever be assembled in one place and, to use Yeager's term, "assimilated" by one mind preparatory to being fed into the computer.[3] Thus is Yeager (p. 99) led to conclude, in agreement with Hicks and Lange, that "if all relevant knowledge *could* be gathered and assimilated and all other preparations made and if the vast comprehensive calculation *could* be performed, then the immense list of results spewed from the computer would not only prescribe all input and output quantities in detail but also indicate shadow prices of all inputs and outputs."

It is because of his PE mindset, then, that Yeager is unable to perceive what is to SRH the very pith of Mises's calculation argument: first, that the market creates a social appraisement process which is *not* implicit in the informational parameters of the equation system and which depends crucially on an intellectual division of labor featuring the qualitative *understanding* of competing entrepreneurs; and, second, that this process is indispensable for converting the multidimensional knowledge of the economic data, regardless of who possesses this knowledge or where it is located, into a unitary structure of meaningful resource and product prices.

That Yeager's attempt to portray Mises as a PE theorist is untenable and that SRH's view of Mises as a dynamic appraisement theorist is indeed the correct one is compellingly evinced by Mises's definitive response in *Human Action* to the. proposed mathematical solution to socialist calculation. Here Mises (1966, pp. 710–15) makes it crystal clear that the static prices mathematically imputed from perfect knowledge of the

economic data would not lead to a dynamically efficient allocation of resources. The latter can only be achieved by the entrepreneurially appraised prices that are generated by the historical market process.

In arriving at this conclusion Mises first considers a situation in which the central planner is endowed with perfect knowledge of the existing economic data. Mises points out, however, that such data would include a stock of intermediate or capital goods, which, in a world of unrelenting change and uncertainty and of consequent entrepreneurial error, is necessarily maladapted to the primary data of wants, technology, and "original" resources, i.e., permanent and/or nonreproducible labor and land. Nonetheless, the existing inventories of nonpermanent, reproducible items that constitute this disequilibrium capital stock are cast as "parameters" in the system of simultaneous equations. Solving this system would therefore yield a static or Pareto-optimal allocation of resources and a related shadow price system. But this static solution cannot possibly elucidate the series of steps that must be initiated today to progressively and efficiently transform the structure of capital goods through a sequence of further disequilibrium states towards its (presently unknown) equilibrium configuration.

Indeed, thirty years after Mises elaborated this argument, dissident GE theorists were just beginning to catch a glimpse of its significance. Thus, as Vivian Walsh and Harvey Gram (1980, pp. 182–83) frankly and perceptively noted at the time:

> The intended interpretation of neoclassical allocation theory depends fundamentally on the meaning attached to the parameters that enter into its structural relationships. . . . In a model of neoclassical allocation theory it is of no importance to distinguish inputs on the basis of the process by which they came into being. . . . Indeed, the *only* historical fact that has any bearing on the analysis is that a given quantity of resources has come into existence and is now available at a point in time to be used in ways that may or may not have been anticipated when these resources were produced. . . . Thus the categories land, labor, and "capital" are only descriptive; they have *no analytical significance* in static allocation models. . . . [N]eoclassical theory does not deny the reproducibility of the

> means of production. It simply takes no account of this reproducibility in its analysis of prices and quantities. . . . Thus, the flow of services of a diesel engine may enter as a factor input into certain technical processes, but it is immaterial to the. theory's treatment of production that the engine itself is the result of a previous investment of resources as opposed to a free gift of nature dropping, as it were, from Heaven![4]

Now, Mises's calculation argument focuses on a situation characterized by the absence of competitive appraisement of current resource prices based on entrepreneurial forecasting of the successive changes in the data that occur during the extended transition to the final equilibrium. In these circumstances, there is absolutely no possibility of determining whether and to what extent current productive services should be devoted to, e.g., maintaining existing railroad diesel engines, initiating a highway expansion project, constructing a new truck assembly factory, converting military cargo planes to civilian uses, etc. The shadow prices generated by the Lange-Hicks-Yeager linear programming "solution" are therefore incapable of providing the guiding light of economic calculation. And it is this alone which can save human actors from blindly toppling over into the abyss of irrationality and arrant wastefulness when choosing among social (i.e., nonautarkic) production processes.

Let us even grant further, as Mises (1966, pp. 713–14) does, that the central planner is miraculously inspired with an exact image of the final equilibrium state that is perfectly adjusted to the primary data of the problem. Without recourse to a social appraisement process, the planner would still be unable to calculate a transition plan that economically utilizes the services of the current capital stock. Of course, dynamic appraisement is even more important in the real world. Here, exogenous changes in the data continually deflect the economy from any temporal progression toward a given equilibrium. Thus, all entrepreneurial actions and innovations are guided by anticipated future prices reflecting, according to Mises (1966, p. 711), "only the first steps of a transformation" of market conditions in the direction of equilibrium.

It is instructive to consider the series of rhetorical questions posed by Yeager (p. 96) midway into his article. These are designed to drive home his point that Mises could not possibly

have been contending about arithmetic. But once it is finally understood that Mises's arguments about calculation referred neither to arithmetic nor to knowledge but to appraisement, it also becomes quite clear that these questions do not merit the answer Yeager seeks to elicit. Representative of Yeager's queries are: "Was Mises conceding that the planners might conceivably assemble all of this unimaginably detailed information [about the economic data]? Was he balking only at the next step, denying that they could use all of it to calculate a pattern of production and resource allocation that would in some sense be optimal?" To these questions I reply with a resounding "Yes, indeed!" Mises did concede, for the sake of argument only, that planners possessed perfect information.[5] But he emphatically denied that this information would be of any use to them in efficiently allocating resources.

I conclude with Mises's own words (which are difficult to explain away without invoking some problematic hermeneutical principle[6]): "It was a serious mistake to believe that the state of equilibrium could be computed, by means of mathematical operations, on the basis of the knowledge of conditions in a nonequilibrium state. It was no less erroneous to believe that such knowledge of the conditions under a hypothetical state of equilibrium could be of any use for acting man in his search for the best possible solution of the problems with which he is faced in his daily choices and activities" (Mises 1966, pp. 714–15).

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Page references to Professor Yeager's article refer to pages in this volume. I would like to thank two anonymous referees for many thoughtful suggestions on stylistic and substantive matters that contributed significantly to improving this article.

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[1] The meaning of the symbols in my interpolations in this citation are as follows:

P = price of product
MC = marginal cost
MU = marginal utility
P^F = price of factor of production
MVP = marginal value product
AC = average cost
i = ith product where i = 1, . . ., n and n = total number of products
j = jth factor where j = 1, . . ., m and m = total number of factors

[2] For a fuller treatment of the function of the price system, Yeager refers the reader to a discussion in another one of his works. There, Yeager (1966, pp. 13–30) cites the usual static neoclassical reasons involving externalities and monopoly for the failure of the market to achieve the ideal allocation of resources, but he tends to downplay their practical significance. However, he does not even hint at the dynamic considerations that prevent actual, moment-to-moment market prices from ever coming close to fulfilling their PE role as "signals of opportunity cost," which are supposed to accurately guide market participants to a Pareto-optimal pattern of resource use.

[3] In his article on "Economics and Knowledge," Hayek (1972a, pp. 41–42 n. 6) sought, among other objectives, to "dynamize" the concept of equilibrium and give it empirical applicability by dissolving the link between equilibrium conceived as a coinciding of subjective expectations held by

diverse individuals and the concept of the "stationary state" based on the constancy of the underlying objective data. It is now generally known that Hayek's article was intended in part as a critique of Mises, whose praxeological approach to economic theory included a (strictly subsidiary) role for the mental construct of a stationary state or "evenly rotating economy." This is of great doctrinal significance in light of the fact that Hicks's attempted dynamic recasting of GE theory in *Value and Capital*, which, Hicks (1968, p. vi) has revealed, was largely based on ideas "conceived at the London School of Economics during the years 1930–35," was prompted by precisely the same considerations. In fact, Hicks (1968, p. 117) specifically criticized "the method of the Austrians" for its "concentration on the case of a Stationary State." Moreover both Hicks (1968, pp. 119–21) and Hayek (1972a, p. 41 n. 6) credit Alfred Marshall with pointing the way to the proper use of the equilibrium technique. Thus Hayekian PE and modern GE theory have common roots. For an illuminating discussion of the seminal influence of Hayek's work on Hicks's initial endeavors in GE theory, see E. Roy Weintraub (1991, pp. 30–31).

[4] Hicks's earlier theory of the "Traverse" was an abortive attempt by a GE theorist to come to terms with, or escape from, a similar insight. Wrote Hicks (1972, pp. 183–84): "[I]n the real world changes in technology are incessant; there is no time for an economy to get into equilibrium (if it was. able to do so) with respect to January's technology, before that of February is upon it. It follows that at any actual moment, the existing capital cannot be that which is appropriate to the existing technology. . . . Every actual situation differs from an equilibrium situation by reason of the inappropriateness of its capital stock." Despite this recognition, however, Hicks apparently found it would be "very inconvenient" to abandon GE theory in order to "analyze the transition from one out-of-equilibrium position to another, so Hicks's Traverse is a traverse from one growth equilibrium to another" (Collard 1993, p. 343). Needless to say, Hicks's theory of the adjustment path, worked out on the assumption of a "fixprice" policy and a change in technology that does hot influence relative prices, is unable to illuminate how monetary calculation guides entrepreneurs in choosing the most valuable uses (from the point of view of their current prices or future market conditions) for the perennially inappropriate capital stock. For a polite but devastating critique of Hicks, see Lachmann (1977).

[5] It should be emphasized that Mises did recognize a separate and "practical" knowledge problem confronting socialism. But he hastened to make it clear that it was not this problem that rendered a socialist economy a logical impossibility. Thus Mises (1966, p. 715) concluded his chapter in *Human Action* on the "The Impossibility of Economic Calculation under Socialism" with the following sentence: "There is therefore no need to stress the point that the fabulous number of equations which one would have to solve each day anew for a practical utilization of the [mathematical] method would make the whole idea absurd *even if it really were a reasonable substitute for the market's economic calculation*" [my emphases]. Mises then refers the reader in a footnote to Hayek's knowledge-based critique of the .mathematical solution in the volume on *Collectivist Economic Planning* (Hayek 1975, pp. 207–14).

[6] Yeager (pp. 100–5) devotes over one-third of the text of his article to supporting his interpretation of Mises's calculation argument with appeals to similar interpretations advanced by other notable Hayekians on the contemporary scene as well as to his own past intellectual experience in coming to terms with Mises's writings. But it is precisely this now conventional explication of Mises's calculation arguments which rapidly became entrenched among Hayekians after the work of Don Lavoie—that SRH take issue with, because they believe it represents a palpable conflation of Hayek's and Mises's thought. Thus, it is difficult to see what these appeals add to Yeager's case beyond an argument from authority. For a critique of the unwarranted "homogenization" of Mises and Hayek by some contemporary Austrian economists, see Salerno (1993).

The Philosophy of Austrian Economics

The Philosophical Origins of Austrian Economics. By David Gordon. Auburn, Alabama: Ludwig von Mises Institute, 1993.

Barry Smith

This is a useful, clearly written study of the philosophical origins of Menger's theorizing in economics. As the author points out in his conclusion: philosophy has been an accompanying presence at every stage in the development of Austrian economics. Moreover, "Action, that leitmotif of praxeology, has in the Austrian tradition received a distinctly Aristotelian analysis. Austrian economics and a realistic philosophy seem made for each other." Gordon packs considerable material into a short span, and inevitably some simplifications arise. Thus in defending a view according to which Austrian economics arose in reaction to the "Hegelianism" of the German Historical School, he ignores the differences which existed between the views of Knies, Roscher, Schmoller and other members of the German school, as he ignores also recent scholarship which points to hitherto unnoticed similarities between the work of some of these thinkers and that of Menger.

Underlying Gordon's treatment of nineteenth-century philosophical thinking in the German-speaking world is the idea of a division into two camps. On the one hand (and here I, too, am guilty of some simplification in expounding Gordon's views) is the camp of German philosophy, which Gordon sees as being Hegelian, anti-science, and organicist. On the other hand is the Austrian camp, which he sees as Aristotelian, pro-science, and individualist in its methodology. The members of the Historical School are placed in the former camp and are described as having embraced a Hegelian position inimical to the development of economic science. Menger, in contrast, falls squarely in the latter camp, and is presented as having shown the way towards a genuinely scientific theory of the "principles" of economics, a theory capable of being applied at all times and to

all cultures.

The simplification involved in this two-camp hypothesis can be seen already in the fact that Brentano, normally and correctly regarded as the Austrian philosopher (and as the philosophical representative of Austrian Aristotelianism) *par excellence*, was in fact born in Germany, and his Aristotelianism was decisively influenced by the thinking of the German metaphysician F. A. Trendelenburg. What is more, Hegel himself was seen by his contemporaries as having been responsible precisely for a *revival* of Aristotelianism, and Aristotelian elements are quite clearly present in the thinking of those whom he influenced (not least, as Meikle and others have shown, in that of Marx).

Interestingly, the two schools of Brentanian philosophy and of Mengerian economics were in a number of ways intertwined—to the extent that the Brentano school was dubbed the "second" Austrian school of value by analogy with the "first" school of Menger. It is difficult to establish the degree to which Brentano influenced Menger (the history of philosophy is, as Gordon himself points out, not an apodictic science), and in my own writings on this matter I have preferred to leave this question open. Gordon writes (p. 27) that Brentano revived the study of Aristotle in Austria; this, too, is a simplification: a certain institutionalized Aristotelianism had survived in Austria (a Catholic country), as it had not survived in those Protestant parts of the German-speaking world influenced by Kant and by the Kantian criticism of all "metaphysics." Both Menger and Brentano were able to flourish in Austria in part because of this Aristotelian background, but all of this makes still more urgent the question as to the precise difference between the "Aristotelianism" of Hegel, Marx, the German Historical economists, and the "Aristotelianism" of the Austrians.

Both groups embraced a suspicion of mathematics. And both groups embraced a form of essentialism: they saw the world as being structured by "essences" or "natures" and they awarded a central role to the necessary laws governing these. (The propositions expressing universal connections amongst essences are called by Menger "exact laws." It is such laws which constitute a scientific theory in the strict sense, as Menger sees it. The general laws of essence of which such a theory would consist are moreover subject to no exceptions. In this respect they are comparable to the laws of geometry or mechanics, and contrasted with mere statements of fact and with inductive hypotheses.)

Both groups held that we can know *what the world is like* in virtue of its conformity to laws, so that the laws are in some sense intelligible, a matter of what is accessible to reason. And both held further that general essences do not exist in isolation from what is individual. Thus they each embraced a variety of immanent realism: they were interested in essences and laws as these are manifested in *this* world, and not in any separate realm of incorporeal Ideal Forms of the sort which would absorb the attentions of philosophers of a Platonistic bent.

Both groups would thus stand opposed to the positivism which has been dominant in philosophical circles for the bulk of the present century and serves as the unquestioned background of almost all contemporary theorizing among scientists themselves. For positivists the world consists of elements that are associated together in accidental and unintelligible ways; all intelligible structures and all necessities are the result of thought-constructions introduced by man, and the necessities involved can accordingly be exposed without remainder as matters of logic and definition. The positivist sees only one sort of structure *in re*, the structure of accidental association. The two groups of Aristotelians, in contrast, see also non-trivial yet intelligible and law-governed worldly structures, of a sort that one can understand. Hence where the positivist sees only one sort of change—accidental change (for example of the sort which occurs when a horse is run over by a truck)—the Aristotelian sees in addition intelligible or law-governed change, as, for example, when a foal grows up into a horse (or when a state-managed currency begins to lose its value in relation to other goods). The presence of intelligible change implies, moreover, that there is no "problem of induction" for either group of Aristotelians. When we understand a phenomenon as the instance of a given species, then this understanding relates also to the characteristic patterns of growth and evolution of the phenomenon in the future and to its characteristic modes of interaction with other phenomena.

In what respects, then, do the German and Austrian Aristotelians differ? First, we mention one minor point (which plays too central a role in Gordon's exposition): the two groups differ in their respective estimations of the role and potentialities of scientific theory, and offer different accounts of the relations between history and philosophy, and also between both of these and "exact" and empirical science. Yet these differences are a matter of emphasis only. Thus Marx himself embraces the assumption that science is able to penetrate through the

ideological obfuscations by which the commonsensical mind (as he conceives things) is of necessity affected. Other German philosophers saw philosophy itself as a science, indeed as a rigorous science in something like the Mengerian sense.

The first major difference between the two groups concerns the account they give of the degree to which the laws of a science such as economics are *strictly universal*. For Menger and Brentano (as for Aristotle before them) strict universality is the necessary pre-supposition of any scientific theory in the genuine science. Such universality is however denied by Marx, for whom laws are in every case specific to *a given social organism*.[1]

The second such difference concerns the issue of methodological *individualism*—a feature which is of course characteristic of Menger and his school. Note, however, that Menger was opposed not only to the holism or collectivism of the sort that was propounded by (among others) Marx, but also, at the opposite extreme, to atomistic doctrines of social organization. For methodological individualism deals with individuals not as isolated, independent atoms, but as nodes in different sorts of complex, cross-leaved relational systems. Society and its institutions (including the market) are not merely additive structures; they share some of the qualities of organisms. The behavior of such structures is, for the methodological individualist, to be understood in the last analysis entirely in terms of complex systems of desires, reasons, and motivations on the parts of individuals; but the institutional structures themselves are for all that real, and the desires, reasons, and motivations—and thus also the actions—of the constituent members of such structures exist and have the texture and content that they have only in virtue of the existence of the given institutional surroundings. We may recall, in this connection, Aristotle's view of the city-state as an organic entity: these and other organicist elements in Aristotle's thinking were, I want to suggest, taken over by Menger, too, though mediated through the latter's theory of the essential laws governing the world of economic and other social phenomena. Economics is methodologically individualist when its laws are seen as being made true in their entirety by patterns of mental acts and actions of individual subjects, but economic phenomena are then grasped by the theorist precisely as the results or outcomes of *combinations and interactions* of the thoughts and actions of individuals.

The third major difference turns on the fact that, from the

perspective of Menger, the theory of value is to be built up exclusively on "subjective" foundations, which is to say exclusively on the basis of the corresponding mental acts and states of human subjects. Thus value for Menger—in stark contrast to Marx—is to be accounted for exclusively in terms of the satisfaction of human needs and wants. Economic value, in particular, is seen as being derivative of the valuing acts of ultimate consumers, and Menger's thinking might most adequately be encapsulated as the attempt to defend the possibility of an economics which would be at one and the same time both theoretical (dealing in universal principles) and subjectivist in the given sense. Among the different representatives of the philosophical school of value theory in Austria (Brentano, Meinong, Ehrenfels, etc.) subjectivism as here defined takes different forms.[2] All of them share with Menger however the view that value exists only in the nexus of human valuing acts.

Finally, the two groups differ in relation to the question of the existence of (graspable) laws of historical development. Where Marx, in true Aristotelian spirit, sought to establish the "laws of the phenomena," he awarded principal importance to the task of establishing *laws of development*, which is to say, laws governing the transition from one "form" or "stage" of society to another. He *treats the social movement as a process of natural history governed by laws*,[3] and he sees the social theorist as having the capacity to grasp such laws and therefore also in principle to sanction large-scale interferences in the social organism which is the state. Marx himself thereby saw social science as issuing in highly macroscopic laws, for example to the effect that history must pass through certain well-defined "stages." The Aristotelianism of the Austrians is in this respect more modest: it sees the exact method as being restricted to essences and to simple and rationally intelligible essential connections only, in ways which set severe limits on the capacity of theoretical social science to make predictions. It is in this connection that the methodological individualism of the Austrians has been criticized by Marxists as a form of atomism, though such criticisms assume too readily that methodological individualism trades in mere "sums."

What, now, of the German historical economists? As already noted, Aristotelian doctrines played a role also in German economic science, not least as a result of the influence of Hegel. Thus for example, Roscher, as Streissler has shown, developed a

subjective theory of value along lines very similar to those later taken up by Menger. Such subjectivism was accepted also by Knies. Moreover, Knies and Schmoller agreed with the Austrians in denying the existence of laws of historical development. In all of these respects, therefore, the gulf between Menger and the German historicists is much less than has normally been suggested. The German historicists are still crucially distinguished from the Austrians, however, in remaining wedded to an inductivistic methodology, regarding history as providing a basis of fact from out of which mere empirical generalizations could be extracted. (Schmoller, especially, attacked the idea of universal laws or principles of economics.) For an Aristotelian such as Menger, in contrast, sheer enumerative induction can never yield that sort of knowledge of exact law which constitutes a scientific theory. For this, reason and insight are indispensable to the science of economics as the Austrian conceives it; and (as Mises has stressed) a knowledge of the science of human action is in fact an indispensable presupposition of that sort of fact-gathering which is the task of the historian.

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[1] Cf. S. Meikle (1985), p. 6, n. 4.

[2] See, on this, the papers collected in Grassl and Smith, eds. (1986).

[3] Passage cited by Marx himself in the "Afterword" to the second German edition of volume 1 of *Capital* and adopted as a motto to Meikle 1985.

Second Thoughts On *The Philosophical Origins of Austrian Economics*.

David Gordon

Professor Barry Smith's characteristically erudite remarks about my pamphlet provide me with a welcome opportunity to offer some additions and corrections. I have no major disagreement with Smith's comments, but he has at one place ascribed to me a much more ambitious thesis than I intended.

He thinks I wish to divide "nineteenth-century philosophical thinking in the German-speaking world" (p. 125)[1] into two camps: German, which I see as "Hegelian, anti-science, and organicist" and Austrian, which in contrast is "Aristotelian, pro-science and individualist" (p. 125–26). Against this view, Smith maintains that Hegel, Marx, and the German Historical School display marked affinities with the Austrians: both groups, in particular, count as Aristotelian.

I meant to advance a much more limited conjecture than this: Hegel's stress upon organic unity may have influenced the aversion toward a universal science of economics found among Schmoller, Sombart and other members of the German Historical School. I also had a little to say about Hegel's politics, but I did not intend a full characterization of Hegel's philosophy, much less nineteenth-century German and Austrian philosophy as a whole.

Smith's emphasis on the Aristotelian elements in Hegel seems to me entirely well taken and supported by longstanding scholarly opinion. As an example, one outstanding British authority on Hegel, G. R. G. Mure, in his *Introduction to Hegel* (Clarendon Press: Oxford, 1940) devotes his first few chapters entirely to Aristotle before so much as mentioning Hegel. But I venture to suggest that the similarities between Aristotle and Hegel leave my suggestion untouched. For Hegel, "the Truth is the Whole" in a way that inhibits the elaboration of separate sciences. Like Aristotle, Hegel favored teleological explanation; but if, as Hegel thought, everything is organically related to everything else, how can one develop a distinct discipline of

economics with universal laws?

Or so at least it seemed to me in 1988, when I gave the lecture on which the pamphlet is based. I did not then know that an important study had challenged the view of Hegel's doctrine of internal relations which I presented. R. P. Horstmann, in *Ontologie und Relationen* (Koenigstein: Atheneum, 1984) argues strongly that Hegel did not support a doctrine of internal relations in the style of the British Idealists. Further, Robert B. Pippin, in *Hegel's Idealism* (Cambridge: Cambridge University Press, 1989), sees Hegel as a "conceptual holist" rather than the advocate of a metaphysical thesis.

But it is exactly here that Hegel's philosophy poses a problem for a science of economics. If one believes that our categories generate contradictions that can only be resolved by resort to a "higher" standpoint, and that this overcoming or "sublation" is continually repeated, will it not be difficult to construct independent scientific disciplines? Even, then, if my statements about internal relation in Hegel need to be changed, my suggestion is still in the running.

To turn to a few details, Smith with complete justice notes that my picture of the German Historical School ignores the views of the earlier Historical School (his term, "simplifications" is much too kind). My remarks on the group should be taken as limited to the later Historical School, as I note at page 43 of the pamphlet. When I gave the lecture, I did not know the material on the earlier group to which Smith refers.

Smith notes that Brentano was "decisively influenced by the thinking of the German metaphysician, F. A. Trendelenburg" (p. 126). Certainly, this makes it difficult to assert a complete polarity between German and Austrian philosophy; but, once more, this is not my thesis. I do not think that Trendelenburg's influence can be used to show a similarity between Hegel and Brentano, since Tredelenburg, far from being a Hegelian, sharply criticized Hegel's *Logic*. But Smith does not use Trendelenburg for this purpose.

I think it doubtful that the "presence of intelligible change implies . . . that there is no problem of induction for either group of Aristotelians" (p. 127). It is of course right that if one grasps a law-governed change, one is not restricted to induction by simple enumeration. But does this solve the problem of induction? Does it logically follow from the existence of an intelligible change at a particular time that the law will continue to hold in the future? Or are these doubts merely an undue Humean skepticism? (I am

not sure whether Smith intends only to give the view of the Aristotelians or also to endorse it.)

Smith's review has a fundamental failing I have so far ignored: he is entirely too easy on me. Before I turn from Smith to my own corrections, however, may I say that I hope the rumor is true that Smith has forthcoming a book on the philosophy of the Austrian School. He is one of the world's foremost authorities on nineteenth and twentieth century Austrian philosophy.

And now for my "second thoughts." At page 7, it would be better to say that Sombart knew Mises rather than that the two economists were friends.[2] At pages 10–11 I describe the doctrine of internal relations in a grossly mistaken way. A supporter of internal relations thinks that any property of an entity is essential to it. But it does not follow from this that any change in a property will affect every other *property* of an entity. Someone might hold that internal relations connect only properties and substances, not properties by themselves. (A more exigent version of the doctrine *would* hold that every property is internally related to every other property of the substance it modifies. A still more demanding version would hold every property is internally related to every other property of *any* substance). And the first sentence on p. 10 should read: "the person who has met the President is an *essentially* different person from the one who has not."

At p. 27, when I claim that for Aristotle "[e]mpirical science exists as a placeholder for true science, which must work through deduction," this wrongly suggests that a deductive science for Aristotle is non-empirical. "Empirical" must be understood in the sense of "mere empirical hypotheses" of the preceding paragraph. For Aristotle, the evident principles of a deductive science come from observation of the world.

Much more serious is the confused discussion of self-evident axioms on pp. 27–28. The regress argument of the *Nicomachean Ethics* is used to establish the existence of a highest end. I should have explicitly stated that the regress argument that I discuss is a generalization of the argument of the *Ethics*, not given there in the form in which I present it. An objection to my discussion which I overlooked is this: I claim that a science can have several basic axioms: justification need not proceed from a *single* self-evident axiom. But if there are several axioms, can't they be combined into a single axiom through conjunction? I ought to have specified that the argument is restricted to axioms that are not logical parts of other axioms. Further, it is not clear that the

discussion is needed: has anyone claimed that a science is derived from a single axiom? Perhaps Mises hints at it; but even he allows subsidiary postulates.[3]

The discussion of the verification principle at p. 36 is seriously mistaken, and I am greatly indebted to Matthew Hoffman for pointing this out to me. First, I ought to have made clearer that I make two assumptions *not* part of the verification principle, on which my argument depends: if a statement is verifiable, its negation is verifiable; and any logical consequence of a verifiable proposition is verifiable. The argument then proceeds as follows: "From p, we derive (p or q). But suppose that p is false—then we have:

p or q
not-p
∴ q

By hypothesis, p is verifiable; then (p or q) and (not-p) are verifiable, by our assumptions. Then q is verifiable, since it is a logical consequence of verifiable propositions." This should be substituted for the erroneous argument at p. 36.

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[1] All references to *The Philosophical Origins of Austrian Economics* (Auburn, Ala.: Ludwig von Mises Institute, 1993) and to Barry Smith's review, which appears in this volume, are by page number in parenthesis in the text.

[2] I am grateful to Ralph Raico for this point.

[3] I am grateful to Ralph Raico for this objection.

The Federal Reserve: Then and Now

Roger W. Garrison

A good friend of mine has two sons who, in their youth, were unusually mischievous. On one occasion, when my friend had just replenished his liquor supply in preparation for a cocktail party that evening, his sons decided that a liquor cabinet was a pretty good substitute for a chemistry set. They broke the seals and poured from one bottle directly into the next: scotch into rum; rum into gin; gin into scotch. And they added a little créme de menthe all around. When their father discovered the deed (not in time to save the evening guests from some innovative cocktails), he issued punishment in the form of reduced allowances and increased yard duties. The two boys accepted the punishment gracefully and promised never to do that again. "You know," my friend told me, "I believe them. They'll never do *that* again. The next time, it'll be something else."

And so it is with the Federal Reserve. Mischievous by its very nature, it rarely does the very same thing twice. Fed-watchers, always looking for a precise pattern in monetary aggregates, hoping to get an exact fix on the Federal Reserve's *modus operandi*, are almost sure to be disappointed. The enduring capacity of the Federal Reserve to exert a powerful influence on the course of economic events derives importantly from its adaptability. New trends in fiscal policy and modifications in the regulatory environment can change the nature and significance of Federal Reserve actions in ways that are difficult to perceive until after the fact.

In recent years, difficulties in perceiving just how the Federal Reserve is affecting the course of the economy have translated into doubts that the Federal Reserve has a significant effect—doubts even that money has much to do with the cyclical variation of employment and output. So-called real theories of the business cycle account for each departure from trend-line growth in terms of some real shock to the economy—which typically means a change in technology or in resource availability.[1] In turn, the focus on macroeconomically significant real shocks, which are relatively few and far between

in comparison to monetary shocks, has caused many modern macroeconomists to believe that business cycles themselves are far less troubling than was once thought.[2] To similar effect, the increasing reliance on an analytical framework that reduces all macroeconomic phenomena to considerations of aggregate demand and aggregate supply has led textbook writers to emphasize the temporariness of cyclical variation rather than the pervasive discoordination and painful recovery that characterize boom and bust.[3]

Such treatments of cyclical variations and of the relationship between monetary and fiscal policy are fundamentally flawed. While important changes in the fiscal and institutional environment underlie the comparison between the Federal Reserve then (1920s-1930s) and the Federal Reserve now (1980s-1990s), the Federal Reserve's power to create money must figure importantly in the accounts of both periods. Understanding just how, though, requires an analysis that makes use of a level of aggregation much lower than that of conventional macroeconomics.

From Textbook Macroeconomics to Macroeconomic Realities

Macroeconomic policy is conventionally divided into two categories: monetary policy, which is formulated and implemented by the Federal Reserve, and fiscal policy, which is the net effect of the many spending and taxing decisions made by Congress. Macroeconomic textbooks typically introduce monetary and fiscal policies in separate chapters and then deal with the interplay between the two by constructing multi-quadrant graphs in which the money supply, government spending, and the level of taxation, each represented in separate quadrants, have a combined economy wide effect on the rate of interest and the level of income.

There is a certain logic to this policy decomposition. Inflating, spending, and taxing in the conventional macroeconomic framework have their own separate short-run effects on the interest rate and income level: expansionary monetary policy causes incomes to rise and interest rates to fall; expansionary fiscal policy (increased government spending or decreased taxation) causes both incomes and interest rates to rise. The effect of coordinated monetary and fiscal policy is simply the sum of the individual effects. Economic expansion

driven by both the Federal Reserve and the federal budget, for instance, has a double-barreled effect on the level of income while leaving the rate of interest unchanged.[4]

Yet the relevance of such textbook treatments of policy hinges on several critical assumptions. By expanding the money supply, policymakers intend to affect output and employment rather than prices and wages. Any hopes for these intended real effects—as opposed to purely nominal effects—must be based on the assumption that prices and wages are somehow stuck above their market-clearing levels at the outset of the expansion and that the new money lent at lower interest rates is used only to mobilize otherwise idle resources. If, instead, pre-expansion prices and wages are fully adjusted to their market-clearing levels, then the effects of monetary expansion are only temporary. In the long run, real incomes return to their pre-expansion levels as prices and wages adjust upward; real interest rates return to their pre-expansion levels as rising prices and wages build an inflationary premium into the structure of nominal interest rates. Similarly, expansionary fiscal policy, which increases real rates of interest, has only a temporary effect on incomes under conditions of flexible prices and wages. These assumptions and qualifications are acknowledged—though sometimes cryptically—in most modern macroeconomic textbooks.

But these treatments employ an exceedingly high level of aggregation, whereby "income" summarily measures both the total output produced in exchange for that income and the spending power capable of buying that output. This aggregation causes the phrase "temporary effects of fiscal and monetary policy" to seem innocuous or benign, seriously understating the actual effects of policy. The conventional wisdom is that policy in the form of such "stimulus packages" may temporarily push the activities of producing, earning, and spending beyond levels that can be sustained. At worst, the dynamics of policy-induced changes in macroeconomic magnitudes give scope for political chicanery as incumbent administrations resort to fiscal and monetary stimulants just prior to elections.[5]

According to an increasingly common view, cyclical movements in income and output—whether attributable to policy actions or to real factors—are considered harmful only in that the timing of consumption is slightly less than optimal. This assessment allows for a quantitative estimate of the welfare loss due to temporal suboptimality of approximately one tenth of one

percent of total consumption—which translates into about $8.50 per person per year.[6] Disaggregating the economy's investment sector into policy-relevant patterns of investment, however, reveals that the temporary effects are not so benign. The scope for harm caused by monetary and fiscal stimulants can instead be seen in terms of unsustainable changes in the pattern of investment. Even if the spending power of income earners equals total output in aggregate terms, a systematic, policy-induced mismatch between decisions in the investment sector and the underlying preferences of consumers and wealth holders can lead to severe economic downturns and painful recoveries.

By carefully identifying the relevant aspects of investment patterns in different cyclical episodes, we can identify both theme and variation in the story of boom and bust. We can find both similarities and differences, for instance, in comparing the experience of the 1920s and 1930s with that of the 1980s and 1990s. Further, we can show that the prolonged succession of policy-induced "temporary" effects, which has fundamentally changed the relationship between fiscal and monetary policy, has had permanent effects on the health of the economy.

Variation on a Theme

How strong are the parallels between the boom of the 1920s and the boom of the 1980s? How similar are the economic circumstances of the early 1990s to those of the early 1930s?

It may be tempting to try to account for our current macroeconomic plight by retelling the story of the interwar experience, changing only the dates and a few minor details. But the story doesn't fit that well. Credit conditions as judged by real rates of interest were relatively tight during the 1980s in comparison to credit conditions during the 1920s. And although the overall monetary expansion was actually greater in the more recent episode, the patterns of monetary growth in the two periods differs importantly. In the 1920s, the money growth rate peaked near the end of the decade as the Federal Reserve attempted with increasing resolve to keep the boom going; in the 1980s, the peak growth rate of M1 came at mid-decade, after which monetary growth fell to low single digits while the bull market continued. Adjusting the story by replacing the conventional money or credit aggregates with more narrow ones, such as the monetary base, or with broader ones, such as the Divisia index, does little to improve the fit. And given the intense

Fed-watching in recent decades, it would in fact be surprising to learn that the Federal Reserve had nonetheless ignited and sustained an artificial boom for several years by simply repeating its misdeeds of the 1920s. There is, after all, a kernel of truth in the notion of "rational expectations"—as recognized by Ludwig von Mises years before that term achieved currency in macroeconomic thought.[7]

Parallels can be found not in the strict sense of a replay but in the broader sense of variation on a theme. The story requires a recasting of the characters and some major changes in the plot. The Federal Reserve no longer plays the lead; it plays instead an indispensable supporting role. Banking legislation and fiscal policy are more central to the storyline. In accounts of both periods, however, we can say that unprecedented conditions allowed an artificial boom to go unchecked for a significant period of time. Unprecedented in the 1920s was a strong central bank bent on stimulating growth in a peacetime economy. Unprecedented in the 1980s was a banking industry operating in a dramatically altered regulatory environment and a federal government running deficits measured in the hundreds of billions.

Interest rates in the recent episode play an important role not so much because of considerations of time discount but because of considerations of risk. During the 1920s, the low time discount signaled by artificially depressed interest rates did not accurately reflect people's actual willingness to save; during the 1980s, the low risk premiums built into interest rates did not accurately reflect people's actual willingness to accept the risks of increasingly speculative investments—much less the additional risks attributable to the government's irresponsible fiscal policy. The boom of the 1980s was no less artificial, however, than the one in the 1920s. To see why, we shall have to shift our focus from the easy money provided by the Federal Reserve in the 1920s to the risk-free securities provided by the Treasury in the 1980s. But first let us highlight aspects of the 1920s that have identifiable counterparts in the 1980s.

The Federal Reserve played a leading role in the dramatic boom of the 1920s (and the bust of the 1930s). Artificially cheap credit provided by the Federal Reserve underlay the economic expansion that lasted through mid-1929. This credit expansion, in an economic environment largely devoid of Fed-watchers, drove a wedge between saving and investment. Guided by low rates of interest, investment outstripped saving in aggregate

terms, and—more importantly—investment projects were excessively long-term. As the boom proceeded, low interest rates lured capital into relatively time-consuming production processes. That is, the timing of the output of these production processes was skewed toward the future in comparison to the intertemporal pattern of demand for output. While the intertemporal distortion of output is the essence of so-called real business cycle theory, it is only a symptom, in the view presented here, of a pervasive distortion in the economy's capital structure. The economywide inconsistencies—attributable to Federal Reserve policy—between investment decisions of the business community and the time preferences of consumers made the bust inevitable. The recovery, hampered by policies aimed at re-igniting the boom, consisted of extensive capital liquidation and a general intertemporal restructuring of capital.

Modern textbook treatments of the recent economic boom in comparison to the interwar boom hinge on a sharp distinction between monetary and fiscal policy. The earlier boom was driven by monetary policy; the later one by fiscal policy. It is true that the 1920s were characterized by (relatively) tight fiscal policy and loose monetary policy as each is conventionally measured, and that the 1980s saw a reversal in the relative strengths of the two policy alternatives. But the strict dichotomization between fiscal and monetary policy is badly overdrawn. In the 1980s, the significance of fiscal policy lay not in its augmentation of aggregate demand but in the private-sector risks and uncertainties that were attributable to chronic and dramatic federal budget deficits. This shift in focus directs attention to the Federal Reserve's critical supporting role throughout the decade and to the banking legislation at its beginning.

While irresponsible fiscal policy created additional risks and uncertainties to be borne by the private sector, the Federal Reserve in its capacity to monetize Treasury debt kept the risk premium off Treasury securities. Further, while extensive changes in the regulatory environment faced by the banking industry led banks to take on increasingly riskier portfolios, the Federal Reserve in its capacity of lender of last resort—together with policies of the Federal Deposit Insurance Corporation (FDIC)—kept the risk premium off bank securities and minimized the worries of the banks' depositors. Although the story of the 1980s is institutionally complex, the general nature of the problems in the private sector is relatively simple. The regulatory and policy environment led the business community to take on

risks that were systematically out of line with the risk preferences of private wealth holders. This systematic discrepancy between risks undertaken and risk preferences, which provides the thematic link to the interwar episode, justifies the claim that the 1980s boom was artificial and that the bust was inevitable.

Deficit-Induced Uncertainties

It is not difficult to demonstrate that chronic and dramatic federal budget deficits create uncertainties in the private sector. [8] A numerical example can serve to illustrate. Suppose the government's anticipated rate of spending over the next several years is a trillion dollars per year and that it anticipates collecting $800 billion per year in tax revenues. The difference, the anticipated annual deficit, of $200 billion represents yet-to-be-funded government spending.

The business community understands that the government will appropriate a trillion dollars worth of resources each year. Tax codes stipulate the particular targets of eighty percent of the government's appropriation activities. Production plans can be made in the light of these codified taxing procedures. But there can be no plans that effectively take into account the other twenty percent, the anticipated deficit. In effect, the government is putting the private sector: "We are planning on appropriating another $200 billion worth of resources, but we are not saying just how, just when, and just whose."

The government may continue issuing new Treasury bills while holding the line on the money supply. This would mean continued strains on credit markets, real rates of interest higher than they otherwise would be, and continued trade deficits as the Treasury sells those bills both at home and abroad. Alternatively, the government may rely more heavily on money creation. The Federal Reserve may begin buying Treasury bills at an accelerated rate. This process of debt monetization would take the pressure off credit markets and strengthen export markets. It would reduce the real rate of interest (temporarily) but would build an inflation premium into the entire structure of interest rates. As still another alternative, the government may institute new taxes of some kind or raise tax rates in some yet-to-be-specified way. In the meantime, a $200-billion cloud of "intent to appropriate in some unspecified way" looms large over the private sector.

There is no effective hedge against uncertainty of this kind. There are no probabilistic answers to the question of just how the government will appropriate the additional resources. Should long-term capital be shifted out of export industries because of the currently high foreign-trade deficit and correspondingly weak export markets? Or should it be kept in place by anticipations of —or hopes for—a change in fiscal strategy? Should long-term financial commitments be based on the current credit conditions or on the contingency of some unknown likelihood that the Treasury will borrow more heavily in domestic as opposed to foreign credit markets? Should land, durable assets, and even inventories be bought or sold at prices that reflect current inflation rate? Or should such transactions reflect accelerating inflation based upon some guess about the extent and timing of debt monetization?

Although the government's borrowing at irresponsibly high levels adds to the riskiness of private-sector activities, none of these risks are born by the holders of Treasury securities. This discrepancy between risk created and risk assumed can be directly attributed to the Federal Reserve in its capacity to monetize Treasury debt. Overextended borrowers in the private sector must pay a substantial default-risk premium in order to continue borrowing. Even overextended municipalities pay a default-risk premium as their bonds are downgraded by bond-rating agencies. The power to tax alone is not enough to protect municipal bondholders against default. But the interest rate paid by the federal treasury contains no default-risk premium at all. The Federal Reserve stands ready to monetize the Treasury's debt in circumstances that otherwise would require an outright default. It is true, of course, that *actual* monetization imposes costs in the form of price distortions and a general price inflation, but these costs are imposed on the economy in general —not just the holders of Treasury securities. Since a "monetization risk," unlike a default risk, is born by holders and non-holders alike, there is no monetization-risk premium—separate from the economywide inflation premium—built into the nominal yield on Treasury securities. The very potential for debt monetization is what breaks the link between fiscal irresponsibility and some corresponding risk premium.

The Federal Reserve, then, plays a critical supporting role in the pursuance of fiscal policy. Relieving the holders of Treasury securities of any risk burden increases the attractiveness of those securities and thus eliminates what would otherwise be a binding

market constraint on further Treasury issues. The increasing significance of *potential* debt monetization suggests that the magnitude of the Federal Reserve's influence is not to be detected in *actual* movements of monetary aggregates. The mere fact that the Federal Reserve stands ready to monetize debt gives the Treasury a much longer leash than it would otherwise have.

The Artificial Boom

Textbook treatments of fiscal and monetary policy recognize that the fiscal authority and the Federal Reserve can work together. The Treasury issues debt and the Federal Reserve monetizes it. So long as government borrowing has not been pushed to irresponsible levels, debt issue and monetization have short-run effects on output and incomes that reinforce one another and short-run effects on the interest rate that cancel one another. These effects of policy are derived straightforwardly from standard analysis which focuses on aggregate supply and aggregate demand. But when borrowing becomes excessive, considerations of risk become dominant. Going beyond the circumscribed focus of the textbook, we can recognize that the Treasury creates risk and the Federal Reserve externalizes it.

To say that the Federal Reserve keeps the default-risk premium off Treasury bills is not to say that the risk is actually eliminated. The burden of bearing it is simply shifted from the holders of Treasury securities to others. Borrowing and investing in the private sector becomes more risky than it otherwise would be. Holders of private debt and equity shares must concern themselves not only with all the usual risks and uncertainties of the marketplace but also with the risks and uncertainties attributable to changes in the way the federal deficit is accommodated. Selling Treasury bills in foreign credit markets, in domestic credit markets, or to the Federal Reserve can have major effects on the strength of export markets, on domestic interest rates, and on the inflation rate. The inability of market participants to anticipate the Treasury's borrowing strategy translates into unanticipated changes in the value of private securities.

If the additional risks attributed to federal budget deficits and imposed upon the private sector were allocated in some economically efficient way, there would have been no artificial boom arising from the irresponsible fiscal policy of the 1980s. The willingness to lend and to buy equity shares in the private

sector would have been generally reduced, as wealth holders opted for the artificial security provided by government debt; but the reduction in private-sector activity would have been minimized so long as the additional risks were assumed by those most willing to do so. This result, though, was precluded by institutional factors that hid the private-sector riskiness from those who were (unknowingly) financing risky undertakings. Again, the Federal Reserve plays a strong supporting role, as does the FDIC. Together, they enabled commercial banks and their depositors to finance risky ventures throughout the 1980s while being shielded either permanently or temporarily from the risks. This shield from risk bearing, like the low rate of interest in the 1920s, gave rise to an artificial boom and subsequent bust.

The Depository Institutions Deregulation and Monetary Control Act of 1980 (DIDMCA) dramatically changed the banking industry's ability and willingness to finance risky undertakings. Increased competition from nonbank financial institutions drove commercial banks to alter their lending policy so as to accept greater risks in order to achieve higher yields. The Federal Reserve in its long-established capacity of lender of last resort diminished the banks' concerns about possible problems of illiquidity while the FDIC absolved the banks' depositors of all worries about illiquidity and even about bankruptcy. Riskier loans, then, were only partially reflected in higher borrowing costs and lower share prices. In substantial measure, specific private-sector risks were transformed by DIDMCA, the Federal Reserve, and the FDIC into (1) the generalized risk of inflation in the event of excessive last-resort lending by the Federal Reserve and (2) the risk of a large and unbudgeted liability in the event of excessive last-resort closings by the FDIC. Thus, economic activity in the private sector was spurred on by the lure of higher yields, yet it was largely unattenuated by considerations of risk, which were effectively externalized and diffused.

The artificially low risk premiums stemming from the risk-externalizing effect of potential debt monetization in the 1980s paralleled the artificially low interest rates created by actual monetary expansion in the 1920s. What was without an earlier parallel, however, was the impact of deposit insurance in the post-DIDMCA period.[9] Throughout the 1980s, the FDIC continued to protect depositors while charging the banks a premium that was too low in general and, more significantly, that was unrelated to the riskiness of bank assets. This subsidy to risk-taking may have been significant enough, by itself, to create

an artificial boom. There was no difficulty in finding risks to take. Banks could simply lend more heavily to overextended farmers, third-world countries, oil prospectors, and real estate developers; or they could find new risks such as those created by leveraged buyouts and the dramatic growth of the junk-bond market. It was the financial sector's demand for high-risk, high-yield securities, in fact, that gave junk bonds and other highly leveraged securities their buoyancy.

Although it is possible to think of the FDIC as having its own independent effect throughout the 1980s, FDIC policy was actually an integral part of the fiscal, monetary, and regulatory environment that created and externalized risks. The Treasury created risk; the Federal Reserve and the FDIC externalized it. After all, speculative lending such as for commercial real estate development or for highly leveraged financial re-organizations are risky in large part because of possible changes in such things as the inflation rate, interest rate, trade flows, and tax rates—the very things that can undergo substantial and unpredictable change when the federal budget is dramatically out of balance. The 1980s may best be understood, then, as a decade in which the policy-induced externalization of risk gave rise to a substantial but ultimately unsustainable economic boom.

The Bust

Potential debt monetization can keep Treasury bills risk free for the indefinite future; the reimbursement of depositors of failed banks can continue so long as the FDIC can be recapitalized out of general tax revenues. But the banking industry cannot be shielded from the consequences of excessive risk-taking forever. For almost a decade the banking industry and the speculative activities it supported were able to keep the economic expansion going. Although risk aversion normally characterizes sound banking, high-flying banks in the 1980s were able to indulge in risky lending despite the preferences of their depositors and to escape both market-imposed or government-imposed discipline until the cumulative effects of externalizing risk turned the undue risk-taking into a financial crisis. The Federal Reserve's routine functioning as lender of last resort, the FDIC's *de facto* policy of forbearance in cases of problem banks, and the implicit acceptance of the doctrine of "too big to fail," all help to account for the length of the artificial boom. But neither increased last-resort lending and forbearing nor more overt inflationary

finance, such as was pursued in the 1920s, could keep the boom going indefinitely. As with the artificial boom in the interwar period, an eventual bust was inevitable.

Like the time-consuming production processes that were out of line with time preferences, speculative loan portfolios that were out of line with risk preferences generated an artificial boom in the 1980s that belonged to the same general class as that of the 1920s. However, the distinction between economic activities that are excessively future-oriented and economic activities that are excessively speculative—together with some institutional considerations—allows us to see systematic differences between the 1930s and the 1990s.

First, the downturn at the end of the Bullish Eighties came in the form of a bank-led bust. A high rate of bank failures was experienced well before the general economic contraction. At the end of the Roaring Twenties, by contrast, the bank failures came after the economic contraction had begun. This difference in the timing of events is consistent with differences in the nature of the two expansions. Industrial borrowers in the 1920s were using newly created funds for excessively capital-intensive ventures that, in general, were not otherwise excessively speculative. It is true, of course, that there was heavy speculation in securities markets in the 1920s—much more so then than in the 1980s—but the cause-and-effect relationship in the recent episode was the reverse of that in the earlier one. That is, in the 1920s, monetary expansion, which allowed banks to support heavy industry, also fueled speculation in securities markets. However, because the risks of that speculation were born, in the first instance, by the buyers of the securities, there was no policy-induced externalization of risk to weaken banks even as the expansion continued. In the 1980s, policy-induced speculation, on the part of the banks themselves and their industrial borrowers, eroded bank capital, weakening the banks throughout the boom—so much so that the erosion of their capital base eventually turned boom into bust.

Second, while the idleness of plant, equipment, labor, and other resources that characterized the 1930s has its counterpart in the semi-idleness in the 1990s, the disposition of unprofitable assets is different now, largely because the recent bust was bank-led. During the Great Depression, firms whose revenues did not cover operating costs simply closed their doors. Work on incomplete industrial projects whose present value had turned negative was simply discontinued. Although this form of market

discipline was sometimes delayed by policies aimed at rekindling the boom, eventually resource idleness characterized those sectors of the economy that were most out of line with underlying economic realities, and liquidation could proceed apace.[10] In the current slowdown, many failing firms are first identified as non-performing loans in the portfolios of failed banks. As insolvent banks are closed by the FDIC, the bad loans are transferred to the Resolution Trust Corporation (RTC), which functions as a caretaker until it can sell the assets. In many cases, the physical assets, such as franchised motels or restaurants, are not idled. Instead, the RTC contracts with an operating company to run the business. The contract allows the operating company to earn a profit while minimizing the cost to the RTC of maintaining the assets.

The existence of many such failed-but-still-operating businesses, including firms undergoing bankruptcy proceedings but still operating with the newly evolved debtor-in-possession (DIP) financing, helps to explain why the current recession is a relatively shallow one by conventional measures. What otherwise would be idle capital is partially masked by RTC policy as underemployed capital—analogous to the underemployed labor associated with 1930s-style make-work projects. “Zombie banks,” banks that are allowed to continue operations after their net worth has turned negative, have their counterpart in RTC-owned or DIP-financed “zombie firms.”[11]

While the underemployed capital in zombie firms limited the depth of the recession, it added to the length. Recovery consists of re-employing resources idled by the bust. As confirmed by experience in the early 1990s, it would have been easier to draw resources out of idleness than to draw them away from the RTC. Asset managers of the RTC, trying to avoid spoiling markets that dumping real assets at fire-sale price would entail, stockpiled them instead, creating a huge “overhang” which added significantly to the uncertainties in the private sector. Also, solvent firms and would-be upstarts, who would have to raise their own capital to expand or enter the market, are not eager to compete with bankrupt firms or with privately operated but RTC-owned businesses whose revenues do not have to cover the costs of capital. Considerations of these sorts help to explain why the government’s recent recourse to monetary stimulation in the form of exceedingly low discount rates has met with such little success.

Third, the unemployment currently being experienced has a

distinctly different composition from that of the 1930s. It is widely reported that white-collar workers are disproportionately affected in the current recession as compared to earlier cyclical downturns. The time-preference/risk-preference frame of analysis makes this composition difference readily understandable. The boom in the 1920s involved resources allocated disproportionately to capital-intensive projects, such as steel mills and manufacturing plants. The labor complement to heavy industry tends to be predominantly blue-collar. The boom in the 1980s involved resources allocated to speculative development, such as commercial real estate and financial services. The labor complement to this kind of capital tends to be predominantly white-collar. In both episodes, the composition of unemployment matches the pattern of capital misallocation.

Finally, macroeconomic policy after the bust reveals a critical difference between the current situation and that of the 1930s. When further monetary expansion, which sustained the boom of the 1920s for nearly a decade, could sustain it no longer, both the monetary expansion and the boom came to an end. The public's increased demand for currency relative to checking-account money, coupled with the increased reluctance on the part of commercial banks to lend, swamped the Federal Reserve's efforts to re-inflate.[12] Despite the further padding of the monetary base, the dynamic of the bust itself was an effective check against continued monetary expansion. By contrast, when further deficit spending and risk externalization, which sustained the boom of the 1980s, could sustain it no longer, the boom ended, but the deficit spending and risk externalization escalated. In fact, decreased tax revenues and increased payments of entitlements, both associated with recession, led to still more government borrowing. The dynamic of the bust, then, provided increased scope for the very kind of irresponsible fiscal policy that made the bust inevitable.

How Little "We" Know

The failure at the dawn of the last decade to extend deregulation to the provision of deposit insurance and the absence of any market check against the Treasury's fiscal excesses provide dramatic illustration of the general fallacy of the mixed economy. Privatized profit seeking coupled with socialized risk bearing undergirded both the bull market of the 1980s and the harsher economic realities of the 1990s. The risks assumed by

lenders and borrowers, savers and investors, hedgers and leveragers are rendered inconsistent with the actual risk preferences of wealth holders in the marketplace by the FDIC subsidy to risk bearing and by the Fed-backed Treasury, whose power to issue risk-free debt imposes risks on the private sector.

Researchers at the Federal Reserve are just two steps away from recognizing the problem of deficit-induced uncertainties as evidenced by a recent article entitled "How Little We Know About Deficit Policy Effects."[13] Macroeconomic data as illuminated by several sophisticated modeling and econometric techniques have led two economists at the Minneapolis Federal Reserve Bank to conclude with confidence that "Deficit policies may matter, and then again they may not. Existing studies really don't tell us much about their effects."[14] The first step from this disturbingly limp conclusion to a healthy understanding of the deficit problem is to recognize that the "We" in the title of the article, intended to mean "We Economists," can be extended to mean "We Lenders-Borrowers-Savers-Investors-Hedgers-Leveragers" or simply "We Market Participants." Market participants do not know how deficit accommodation will affect future market conditions, so they have to make guesses. And if they guess wrong, they may lose big. The second step is to recognize that the "We" may also refer to the holders of Treasury securities. Accordingly, the title phrase should be amended to read "How Little We Know *or Care* about Deficit Policy Effects." The potential for debt monetization, as manifested by the Federal Reserve in its standby capacity, has absolved the Treasury's creditors of any inclination to care. Externalizing risk has precluded any possibility that the reluctance of creditors will provide an effective check against the excesses of the Treasury.

The tripling of federal government indebtedness since the beginning of the 1980s' bull market stands as testimony to the capacity of the Treasury to issue its artificially risk-free debt. The banking legislation of 1980 has shown us its capacity for blinding the banking industry and the private sector to the black cloud of debt gathering above it. Together, the actions of the fiscal and monetary authorities have demonstrated once again how public institutions ostensibly devoted to stability and prosperity are, in the end, responsible for crises and decay.

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[1] Real business cycle theorists take the empirically demonstrated links between money and economic activity to be a result of "reverse causation": changes in the money supply are seen as the effect rather than the cause of changes in economic activity. For a critical account of this and other aspects of real business cycle theory, see Mark Rush, "Real Business Cycles," *Federal Reserve Bank of Kansas City Economic Review* 72, no. 2 (February 1987): 20–32.

[2] "Real cycle theorists question . . . the conventional wisdom, which asserts that business cycles harm the economy." Ibid. p. 26. Rather than causing the economy harm, minor changes in the economy's output are understood to be a consequence of an efficient market coping with minor (macroeconomically speaking) changes in underlying realities. (In this context, the Great Depression is seen as something of an "outlier" not well accounted for by this or any other theory of the business cycle.)

[3] Long-run aggregate supply, which reflects resource availabilities and technology, is invariant with respect to the price level and hence is represented by a vertical supply curve. Thus, the real effects of a money-induced change in aggregate demand, as would be measured horizontally, are strictly temporary, lasting only until the price level has become adjusted to the larger money supply.

[4] A typical textbook treatment of macroeconomic policy is contained in William J. Baumol and Alan S. Blinder, *Economics: Principles and Policy*, 5th ed. (New York: Harcourt, Brace, Jovanovich, 1991), chaps. 11 and 13 and *passim*.

[5] For early and non-trivial formulation and application of modern political business cycle theory, see William D. Nordhaus, "The Political Business Cycle," *Review of Economic Studies* 42, no. 130 (April 1975): 169–90 and Edward R. Tufte, *Political Control of the Economy* (Princeton: Princeton University Press, 1978).

[6] Robert E. Lucas, Jr., *Models of Business Cycles* (London: Basil Blackwell, 1987), p. 27. Despite his low estimate of the social cost of cyclical variation of output, Lucas rejects real business cycle theory on the grounds that the candidates for real shocks are too small to account for actual fluctuations. Ibid., p. 71. Textbook authors typically offer no quantitative estimate of

the harm attributable to business cycles, but the fact that Baumol and Blinder's 900-page textbook devotes less than six pages—and nowhere more than two consecutive pages—to the subject of business cycles carries its own message.

[7] Ludwig von Mises, *The Theory of Money and Credit* (New Haven: Yale University Press, 1953; originally published in German in 1912). Mises fully recognized the strategic significance of expectations in his 1953 addendum entitled "Monetary Reconstruction." He expressed the limits to—and the short-run nature of—inflationary finance in terms of Lincoln's Law: You can't fool all the people all the time (see p. 419).

[8] Deficit-induced uncertainties underlie the arguments in Roger W. Garrison, "Public-Sector Deficits and Private-Sector Performance," in *The Crisis in American Banking*, Lawrence H. White, ed. (New York: New York University Press, 1992), pp. 29–54.

[9] For a treatment of the effects of FDIC policy, see Roger W. Garrison, Eugenie D. Short, and Gerald P. O'Driscoll, Jr., "Financial Stability and FDIC Insurance," in *The Financial Services Revolution: Policy Directions for the Future*, Catherine England and Thomas Huertas, eds. (Boston: Kluwer Academic Publishers, 1987), pp. 187–207.

[10] On the role of government in adding to the severity of the Great Depression and delaying recovery, see Gene Smiley, "Can Keynesianism Explain the 1930s?: Reply to Cowen," *Critical Review* 5, no. 1 (Winter 1991): 81–114 and Richard K. Vedder and Lowell E. Gallaway, *Out of Work* (New York: Holmes and Meier, 1993), pp. 74–149.

[11] The term "zombie S&Ls" was coined by Edward J. Kane in the context of the savings-and-loan crisis, which was a precursor to the crisis in the banking industry and subsequent recession. See Edward J. Kane, "Dangers of Capital Forbearance: The Case of the FSLIC and the 'Zombie' S&Ls," *Contemporary Policy Issues* 5, no. 1 (January 1987): 77–83. For a healthy perspective on RTC policy and DIP financing, see Stephen Delos Wilson, *The Bankruptcy of America* (Germantown, Tenn.: Ridge Mills Press, 1992), pp. 81–96 and *passim*.

[12] See Smiley, "Can Keynesianism Explain the 1930s?" p. 88.

[13] Preston J. Miller and William Roberds, "How Little We Know About Deficit Policy Effects," *The Federal Reserve Bank of Minneapolis Quarterly Review* 16, no. 1 (Winter 1992): 1–12.

[14] Ibid., p. 8

Sticky Wages, Efficiency Wages, and Market Processes

Don Bellante

Mainstream macroeconomics is in disarray. Perusal of commonly used textbooks in macroeconomics will confirm that impression without much difficulty. Unfortunately, the same statement could have been made, and often was made, fifteen years ago. While in this sense little has changed in recent years, the disarray is now more fundamental and severe than at any time since the 1930s. Amidst this disarray a variant of Keynesianism identified as Neo- or New Keynesianism emerged in which the workings of labor markets are analyzed to a degree that is uncharacteristic of the orthodox Keynesian tradition. The key element in the New Keynesian analysis of the labor market is the concept of "efficiency wages." In what follows, the concept will be criticized, though criticisms that have been offered by mainstream economists will largely be ignored. Instead, this essay will focus on the criticism that follows from an Austrian perspective on entrepreneurship and the business cycle. It will be argued that the concept of efficiency wages provides an poor answer to the question of why wages are not sufficiently flexible so as to eliminate fluctuations in unemployment, and that from an Austrian perspective the question is not all that relevant.

Historical Background

During the 1960s, when Austrian and other approaches were ignored and the major contention in the popular literature was between the Keynesians and monetarists, there appeared to be a common ground on which to contend. The mainstream perspective on the contention was in accord with Milton Friedman's: namely, "that the basic differences among economists are empirical, not theoretical."[1] Thus a common conceptual framework permitted Keynesians and monetarists, the two mainstream schools, to argue on each other's territory.

No longer does a common conceptual framework exist, even within the mainstream. There are at least three prominent

variants of Keynesianism that are in important respects incompatible with one another: orthodox Keynesianism, Post Keynesianism, and the New Keynesianism.[2] Even within the so-called New Classical school, there are at least two general approaches that are at odds with each other. On the one hand, real business cycle theory emphasizes technological shocks to the supply side as the major cause of economic disturbances, despite the fact that technological shocks of the Schumpeterian sort are positive and thus can not by themselves explain recessions. On the other hand, those New Classical economists whose models are built on "Rational Expectations with Imperfect Information" attribute the business cycle to demand side shocks associated with unanticipated changes in the rate of growth of money, and have to contend with the empirical persistence of recessions beyond any amount of time that could reasonably be expected for the persistence of misinformation about the general price level. Nonetheless, the most significant factor that makes a simple comparison difficult is that some are based on a view of markets which sees them as clearing continuously, whereas others see the inability of markets to clear as the core problem, if not the virtual definition, of recession.

Clearly, Keynes and earlier orthodox Keynesians attempted to explain contractions as if markets, including the labor market, equilibrated without clearing. In almost any other context, equilibration and market clearing are seen as synonymous, but the possibility and likelihood of an "underemployment equilibrium" is the central message of Keynes. The device by which Keynes attempted to rationalize this semantical morass was the contention that the supply curve of labor is a function of nominal, not real, wages and is perfectly elastic at the current wage up to "full employment." Even so, the idea of a labor market in an economywide equilibrium with a genuine excess supply (involuntary unemployment) is nonsensical in terms of the usual definitions of "excess supply" and "equilibrium." This conception of the labor market is perhaps the weakest link in the Keynesian chain of logic. Economists after Keynes dealt with this problem in different ways. Patinkin, for example, argued that Keynes just was not using the usual definitions.[3] But the usual disposition of earlier Keynesians was to attribute the labor market's perceived inability to equilibrate to "sticky wages" while dropping mention of Keynes's attempts at explanation. Unemployment was treated as a residual effect once the equilibrium level of output is determined. The prior question of

why wages should be "sticky" in the first place tended to be ignored, perhaps because Keynes's rationale was embarrassingly inconsistent with rational, optimizing behavior. Keynes, of course, did not indicate any personal embarrassment. He did not see as irrational the supply response of workers to the nominal wage instead of the real wage. His rationalization of this response is spelled out in chapter 19, "Changes in Money Wages," of *The General Theory* (1964, pp. 257–71). To Keynes's way of thinking, workers were more concerned with relative than absolute wages, and the way of maintaining relative wages was never work for less than the current money wage. Changes in the real wage brought about by changes in the purchasing power of money, however, did not disturb the pattern of relative wages, and so would not be resisted.

It is easy to see why Keynes's followers preferred to gloss over or ignore his treatment of the labor market. Nonetheless, this somewhat tortured line of reasoning enabled Keynes to see inflation as a more practical way out of a recession than the passage of time sufficient for markets to re-equilibrate. Further, Keynes did not see the idea of sticky wages as a crucial element in his model, as he strongly argued that even if nominal wages were flexible, reductions in nominal wages would not reduce unemployment.

Owing to Patinkin's pointing out the fallacy in this aspect of Keynes's exposition, orthodox Keynesian textbook treatments of the Keynesian model seem to accept the idea that sticky wages prevent a return to full employment that otherwise would occur, so that inflexibility of nominal wages becomes a crucial underlying but unexplained assumption of the model. The primary purpose of making the assumption of sticky wages was to dismiss out of hand the labor market behavior postulated in the classical model; otherwise, the labor market and the actual processes by which labor markets functioned did not enter into the standard IS-LM model. Likewise, in monetarist models such as Friedman's (1971), the workings of the labor market were not taken into account.

Keynesian wage theory could be and was safely ignored for as long as Keynesian economics totally dominated the academic world. When the Keynesian hegemony began to crack in the 1970s, the behavior of labor markets again became a subject of macroeconomic discussion. From the monetarist side, Friedman (1976) eventually offered a description of the workings of labor markets in which fluctuations in the unemployment rate could be

explained by a lag between the time of a change in the overall price level and workers' perception of that change. The supply of labor would be *temporarily* disturbed, for so long as that misperception remained. Combined with concurrent developments in the theory of search behavior, Friedman's description of the effects of unanticipated inflation suggested an explanation of cycles in unemployment that could be provided without resort to money illusion or disequilibrium in labor markets.

The Friedman perspective eventually both gave rise to, and was superseded by, the New Classical "equilibrium always" approach. Ironically, both the New Classical and primitive Keynesian positions attempted to portray markets strictly in equilibrium terms, despite the protestations of a minority of Keynesians (mostly European) to the effect that Keynes was really a disequilibrium theorist trying to write in language that Classical economists could understand.

Without doubt though, the Keynesian model that most American students find in standard textbooks is an effort at describing the possibility of an economy in equilibrium at less than full employment. So the analytical perspective of both Orthodox Keynesian and New Classical schools remains in fundamental contrast to the Austrian perspective which sees the business cycle as the result of policy-induced disequilibrium, particularly in terms of intertemporal coordination. However, the New Classical school's analysis results in the policy ineffectiveness conclusion, and such unemployment as is associated with business cycles is seen as the result of the intertemporal substitutability of labor. This rather implausible conclusion, particularly in severe depression, leaves the New Classical school with the most elegant but irrelevant model of cyclical activity among mainstream economists. But its irrelevancy has raised optimism among Keynesians that they may reemerge from their eclipse. The New Keynesian economics is their hopeful path to reemergence, and the concept of efficiency wages is seen as rescuing the Keynesian model from non-Keynesian criticisms of their treatment of the labor market.

It is clear that the New Keynesians really believe that they are on to something that effectively rescues the Keynesian paradigm and places it again at the intellectual forefront of macroeconomic reasoning. Viewed by an outsider to this effort at resuscitation, the concept seems like an attempt to revive the Old Keynesian perspective on relative wages being the object of

workers' desires, while dressing that perspective in the garb of more modern jargon. It is not that new a concept, but distorts the previous insights about labor markets from which it borrows. As partial equilibrium microeconomics, the concept yields a few simple insights to those economists who are lulled by the simplistic view of markets fostered by the perfectly competitive model. As a macroeconomic concept, it fails badly because it totally abstracts from the interrelatedness of markets and ignores some of the more significant aspects of competition as a market process. With the concept of efficiency wages, New Keynesians see themselves as having immunized their revision of the Keynesian model from the criticisms that so damaged earlier versions, by putting Keynes's inelegant analysis of the labor market on a sound microeconomic footing. Although it does not logically follow, New Keynesians believe that they have thus per force reestablished the soundness of the case for government management of the economy.

Our argument is that there is a lot of self delusion involved, and it revolves around a concept no more substantial than a soap bubble.

Efficiency Wages: Is That All There Is? [4]

In his textbook summary of New Keynesian economics, Robert J. Gordon has said that "If anything in the microeconomics of labor markets could be called the 'rage of the 80s,' it is efficiency wage theory."[5] Yet the concept, to those who have not joined the New Keynesian equivalent of a tent revival, must surely seem too simple and innocuous to set off a rage. The concept posits a relationship between wages and productivity that over some range is positive. Thus up to some point, raising wages may lower per-unit wage costs. Moreover, it is not so much the absolute wage that affects intensity of effort, the tendency to stay with the firms, and all other desirable consequences of high pay. What matters is the extent to which the wage in the firm in question exceeds opportunities elsewhere, i.e., the market wage, conditioned on the probability of obtaining it.

In the most mechanistic treatments of labor supply, the wage rate affects only the willingness to show up for work and matters such as intensity of effort are ignored for simplicity. In this respect, the efficiency wage argument incorporates more of the real world than those models that implicitly assume that the only

aspect of worker behavior that is affected by the wage rate is the quantity (hours) supplied. Under what circumstances this is a worthwhile incorporation is a distinct question. It is surely a safe guess that all economists believe that the greater the advantages accruing to a worker in her present job, the harder she will try to keep the job, and the less likely she will be to quit it. In most circumstances, this observation is so obvious as to not require explicit mention, and it is quite safe to ignore it in most analyses. But in this obvious relationship, New Keynesians believe that they have found the key to the rescue of Keynes and to the explanation of involuntary unemployment. Simply put, if the firm faces a decrease in demand, it will not take advantage of the seeming opportunity to reduce its wage costs by offering a lower wage, because lowering the wage it offers will actually increase its per-unit-of-output labor costs.

In one sense, this is just one more reason for wages not adjusting so as to continuously providing full employment. But the literature from competing schools of thought has provided a large number of reasons, some of which are mutually exclusive and some of which are not, to explain why adjustment is not instantaneous, or why employers in some situations will find it optimal to pay higher wages than other employers do for seemingly similar labor.

Some of these explanations predate Keynes by more than a century. More will be said on this point later. What then, makes this particular angle so attractive to New Keynesians? Several reasons are usually mentioned. Foremost is the idea that the refusal of employers to cut wages is based on what is seen as rational, profit-maximizing behavior. Second, the outcome is not at all based on money illusion or even temporary informational disequilibrium on the part of workers. It is for this reason that the efficiency wage argument is seen by its proponents as immune both from (a) the worker irrationality complaint leveled against Keynes and early Keynesians, and (b) the persistence problem that seems implausible in the New Classical and Friedmanite explanations that are based on misperceptions of the price level. Indeed, resulting unemployment is not the result of worker decisions at all. Workers' willingness to work at less than the going wage is of no consequence—in general, labor supply conditions do not matter at all. Thus, there can presumably be nothing voluntary about the resulting unemployment.

Last, in at least one formulation, the level of unemployment is not even affected by the shape of the demand curve for labor—

only the average wage level is affected by its shape. This feature is seen as important because to its formulator it seems to resolve a paradox that is a paradox only to him: “This is an attractive property of the model. It is striking that real wages have doubled several times over the last century without having a large impact on average unemployment rates.”[6]

A Few (But Not All) Criticisms of Efficiency Wage Theory

Much criticism of efficiency wage theory has been offered by mainstream economists. Again, it is not the purpose here to give a detailed accounting of those criticisms.[7] One of the remaining real puzzles of efficiency wage theory is with one of its fundamental premises: The model has all firms paying the same high *relative* wage; that is, they all pay a wage that is above the competitive wage. This premise can make sense for one or a few firms, or perhaps even for a large sector of the market, but it cannot make sense for all firms.[8] If they all pay above-market wages, how is the market wage defined? Some strands of efficiency wage theory have an answer (sort of) to this question: The wage w to which workers compare their received wage is the wage rate elsewhere (also w), but discounted by the probability of receiving it, which is one minus the unemployment rate, u. In this manner, the wage w can be uniform across firms and workers still receive a wage premium that will induce them to avoid shirking and to stay with the firm! And in what is a remarkable sleight of hand, Summers (1988, p. 384) is able to make a connection between the productivity enhancing effects of the wage premium and the economy-wide equilibrium level of unemployment. Only in the allegedly implausible case in which the wage does not affect productivity does labor market equilibrium correspond to a zero unemployment rate. The sleight of hand comes from reversing the direction of causation that goes from the unemployment rate (which is first introduced as a given market datum) to the wage premium. In this particular formulation, nothing is done to explain this reversal of causation —it is simply the result of solving an equation for u, the “equilibrium” unemployment rate. Nowhere is a market process described, or hinted at, which will produce what this argument purports to produce; namely, an equilibrium unemployment rate the magnitude of which is positively related to the size of the uniform wage premium’s effect on productivity.

Efficiency wage theory can be criticized on certain grounds if it is seen as one more reason why wages do not adjust so as to continuously eliminate disequilibrium, and along other lines if it is seen as permanently raising the unemployment rate. As an explanation of why wages are not perfectly flexible, it is a mere addition to reasons that have long been known to economists and, for that matter, non-economists with a respectable amount of common sense. All change involves cost, and we live in a world of uncertainty about the consequences of undertaking those changes. All of the other explanations that at various times have been offered, such as implicit contracting, staggered contracts, the effects of specific training, legal and institutional constraints, etc., have more to offer as explanations of sticky wages simply because they do not exclude the actions of workers themselves from consideration of how the labor market works.

In this regard, efficiency wage theory is inferior to the collection of explanations that preceded it. Even if one buys the claim that the efficiency wage theory rests on a firm microeconomic foundation, it still is just one more attempted explanation of wage stickiness. Piled on top of the others, it still does nothing to re-establish the case for demand management—a case which New Keynesians have merely asserted to exist without having demonstrated it. In any event, efficiency wage theory is much ado about very little: It is an open question whether the energy that went into producing the "rage of the 80s" might have been more usefully employed elsewhere.

If efficiency wage theory has a low marginal product as an explanation of wage stickiness, it has a negative marginal product as an explanation of equilibrium unemployment. Here the theory takes no account of likely entrepreneurial responses to efficiency wage theory. To see this point, let us grant for the moment that there are some firms that will pay-higher-than-market wages for reasons consistent with profit maximization. Additionally, let us assume that these firms do not employ all of the labor out there that would like to work at this wage. Are there no entrepreneurs that can find profitable ways to employ the abundantly available workers? And if the "market" wage is depressed by this abundance, won't this also lower the wage that "efficiency wage" employers need to pay in order to maintain the relative wage that is supposedly appropriate? And shouldn't this lowering of the efficiency wage increase optimal employment levels for the firms that pay efficiency wages? Haven't efficiency wage theorists thought about this? Apparently not: Efficiency

wage theory contains a flaw that is often mentioned in criticism of the New Classical school—namely, excessive expository reliance on use of the "representative firm" as if all firms were representative. It is partial equilibrium analysis of a general equilibrium problem.[9]

A small dose of the Austrian appreciation for the interrelatedness of individual decisions and markets would go a long way here. Particularly useful would be an appreciation of how labor markets function in a world of heterogeneous firm technologies and circumstances, and of worker's subjective preferences. In this real world, a sorting and matching of workers and firms takes place along a multi-dimensional spectrum of wages and job conditions that is simply incompatible with the concept of identical "representative" firms paying a uniform wage permanently too high to provide full employment.[10] If efficiency wage theorists have contributed something to the microeconomic analysis of labor markets, it is the identification of yet another source of firm heterogeneity giving rise to equalizing pay differentials, namely variation across firms in the extent to which wage premia substitute for the expenses of monitoring worker effort. This contribution, however, yields no insights into the nature of unemployment or the business cycle.

The Misplaced Emphasis of Mainstream Macroeconomics

It is easy enough to conclude that efficiency wage theory does not provide or even contribute to an appealing answer to the question of why wages do not adjust continuously so as to prevent any deviation from full employment. But New Keynesians as well as their mainstream critics are not asking the most appropriate questions concerning the business cycle. Matters of wage and price flexibility are of secondary importance. Granted, they are not unimportant, but they relate to the problem that Austrians refer to as the secondary contraction and not the primary, causal events that initiate the primary contraction.

Austrians, and Mises in particular, have certainly given due attention to the role of wage stickiness in prolonging the secondary contraction. This attention provides the underpinnings of a telling empirical investigation, focused primarily on the Great Depression, by Lowell Gallaway and Richard K. Vedder (1987). The authors persuasively argue that wages were kept

from achieving equilibrium levels during this period. Of course public policies initiated during this era aimed specifically at preventing the fall of wages to their equilibrium levels and, combined with other New Deal measures, thoroughly impeded recovery. As Gallaway and Vedder documented, these policies were based on the notion that higher than equilibrium wages would actually increase the demand for labor. This notion of the "economy of high wages" had widespread appeal among the business elite of that era, most notably Henry Ford, but the notion is now thoroughly discredited.[11]

Concluding Remarks

It cannot be emphasized enough that analysis of wage stickiness cannot shed light on the nature of business cycles; at best it can provide a partial explanation of the length of the recovery phase. Perhaps too much attention has been given to the matter. In any event, to focus on the wage response issue is to miss the most important aspects of what Mises and other Austrians have had to say about business cycles in general and the Great Depression in particular.

The reason that mainstream economists focus in on the wage stickiness matter is clear enough: Modern mainstream macroeconomics has evolved into a method of analysis conducted as if aggregates actually interact with one another, as if capital were a homogeneous non-specific entity, as if relative prices and wages had no aggregate consequences, as if coordination across economic agents at a point in time were possible if only aggregate prices and wages were sufficiently flexible, and as if intertemporal coordination were no problem at all. With all of the important complexities of the real world thus misperceived, ignored, or assumed away, there is almost nothing else for mainstream economists to examine other than aggregate wage and price levels combined with autonomous shocks in their search for an understanding of the business cycle and unemployment.

Of all of these misperceptions, perhaps the most difficult impediment to understanding is the ignorance of the complexities of the capital structure. If the insights of Mises, Hayek, Rothbard[12] on economic instability, depression, and the impossibility of central management of the economy are to be appreciated, the mainstream's blindness to the nature and significance of the capital structure first must be overcome.

In all likelihood, those who find the New Keynesianism attractive are beyond reach. New Classical economists arrive at their policy ineffectiveness conclusion on the basis of a perfectly competitive, overly simplistic view of an economy in which markets are always in equilibrium. New Keynesians believe that any time they can find evidence that the real world is not perfectly competitive, not always in equilibrium, or otherwise not as simple as the New Classical economists' models portray it, they have somehow re-established a case for government intervention to improve the workings of the economy. Their apparent belief is a *non sequitur* of the first order. The vested interests of the intellectual world will ridicule the effort, but the task for Austrians is to demonstrate to the intellectually non-vested student that it just is not so.

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[1] The quotation is from Friedman (1971, p. 61), although he made similar statements on earlier occasions.

[2] These three variants are described in Bellante (1992).

[3] Patinkin (1965, pp. 634–44 note K).

[4] A brief treatment of efficiency wage theory appears in Yellen (1984). Extensive treatments appear in Weiss (1990) and in Akerlof and Yellen (1986).

[5] Robert J. Gordon (1990a, p. 229).

[6] The formulation and the quotation are from Lawrence H. Summers (1988, pp. 384–85). The larger paradox is that a leading Harvard economist could somehow remain unaware of, or unimpressed by, the usual explanations of the enormous rise

in real wages over this century. These explanations involve the effects of technological improvement and capital growth on equilibrium real wages and thus imply nothing about unemployment, involuntary or otherwise.

[7] Gordon (1990b) presents a fairly detailed critique of the New Keynesian economics with particular emphasis on efficiency wages and related concepts. His criticism focuses on the question of whether or not New Keynesian economics successfully builds a sound microeconomic foundation of wage (and price) stickiness. His judgment is for the most part negative.

[8] Public sector employers, for example, can pay wage rates that exceed those paid in the competitive private sector in order to provide rents to public employees for which they presumably will be grateful and will express that gratitude in the form of political support. Indeed, this possibility is explored in Bellante and Long (1981).

[9] Stated otherwise, failure of some entrepreneurs to use available resources simply creates opportunities for others to do so on more favorable terms. The general equilibrium considerations are similar to those that apply to an economy composed of some unionized and some non-unionized firms: Unions may succeed in raising wages and lowering employment opportunities in unionized sectors. In proportion to their success, wages are lowered and employment is raised elsewhere. Any systematic effects on overall wages and employment are transitory.

[10] This perspective combining the concept of equalizing pay differentials (which dates to Adam Smith) with the subjective value theory of Austrian economics is briefly outlined in Bellante and Porter (1990, pp. 659–62).

[11] Interestingly though, Henry Ford's thoughts on pay have reemerged in the efficiency wage literature (Raff and Summers 1987) and have even found their way into at least one macroeconomics textbook Mankiw (1992, pp. 131–32). In this context, however, there is no mention of the imagined effects of wages on aggregate demand.

[12] Specific reference here is to the works of Mises (1971) and Hayek (1967) on the theory of the cycle in general, and to Rothbard (1983) on the specifics of the depression.

Total Repeal of Antitrust Legislation: A Critique of Bork, Brozen, and Posner

Walter Block

The premise underlying laissez-faire capitalism is that the only actions which should be illegal are those which involve an initiation of aggression against another person or his property. Antitrust law is clearly in violation of this principle, because it prohibits business practices no one even alleges constitute such depredations.

The economists mentioned in the title of this paper are widely and properly celebrated for upholding the virtues of the free marketplace. However, there is one lacunae in their defense: antitrust legislation. Although they have done yeoman work in helping us to understand the beneficial effects of much commercial conduct which is prohibited by these enactments, their critique of this law is less than full. They each see a small but important role for the Antitrust Division of the Justice Department. They advocate reduction in the power and scope of this law, but not, unfortunately, total repeal.

It is as if they are a football team which has succeeded in bringing the pigskin to the three yard line, but can make no further progress. This paper is an attempt to help them over the goal line. To continue our football analogy, the present paper will not comment on the 97 percent of their work which is responsible, in large part, for the scholarly contribution to the cause of keeping antitrust law from being even more intrusive than it now is. In focusing on the 3 percent of disagreement, this paper may give the impression that there are large differences of perspective in public policy conclusions between these authors and their present critic. Nothing could be further from the truth.

Robert Bork

Merger

Robert Bork (1978) maintains that some entrepreneurial choices in the market lead to efficiency, while others merely serve to restrict output. His main thesis is that antitrust has thus far insufficiently distinguished between these two situations. This is important, he contends, because if consumer welfare is to be enhanced, the restriction of output must be prohibited, while wealth enhancing activities must be promoted (or at least allowed.)[1]

This can be shown by a consideration of Bork's "two vectors" hypothesis, representing, at least in the first instance, a merger. This is depicted in Figure 1.

As Bork explains:

> The diagram assumes that the merger reduces the long-run average costs of the two firms from AC_1 to AC_2 but that the increased market power created by the merger results in a restriction of output so that the rate moves from Q_1 to Q_2. We then see that consumers have lost output—for which they would have been willing to pay an amount above cost equal to the area labeled A_1—and have gained in resource savings an amount equal to the area A_2. Obviously, if A_2, the cost savings, is larger than A_1, the dead-weight loss, the merger represents a net gain to all consumers. If A_1 is larger than A_2, a net loss results.
>
> This diagram can be used to illustrate all antitrust problems, since it shows the relationship of the only two factors involved, allocative inefficiency and productive efficiency. The existence of these two elements and their respective amounts are the real issues in every properly decided antitrust case. They are what we have to estimate—whether the case is about the dissolution of a monopolistic firm, a conglomerate merger, a requirements contract, or a price fixing agreement. . .
>
> It must also be remembered that there need not always be a tradeoff [between A_1 and A_2]. In most cases, in my opinion, economic analysis will show that one of the areas does not exist, and a decision of the case is therefore easy. Some phenomena involve only a dead-weight loss and no, or insignificant, cost savings. That is the case with the

garden-variety price-fixing ring. Output is restricted so that Q_2 is to the left of Q_1, creating the area A_1, but there is no downward shift of costs, no line AC_2, and hence no area A_2. (p. 108; material in brackets added by present author)

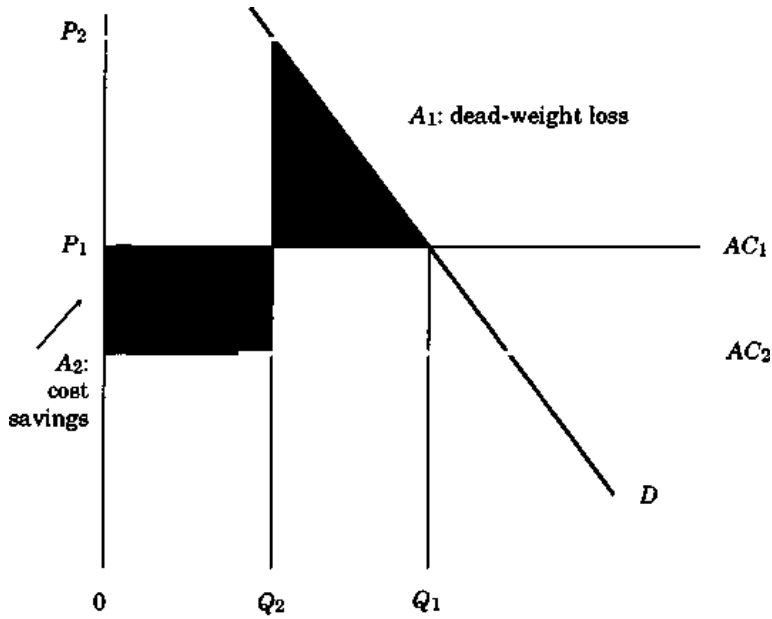

Figure 1

Source: Robert Bork, *The Antitrust Paradox: A Policy at War with Itself* (New York: Basic Books, 1978), p. 107.

One problem with the foregoing is that it pushes the courts into the role of determining whether or not any particular type of industrial organization or contract is or is not "cost saving." But the judiciary has no comparative advantage in making any such determinations.[2] Its members are not selected on the basis of being able to do so. Their salaries and promotions are not in any way tied to success in distinguishing efficient arrangements from inefficient ones. Failures are not punished with demotions. Achievement is not automatically rewarded with promotion, or with the awarding of bigger, more important or precedent setting cases. Why, then, should we expect this behavior from the courts?

Indeed, if Bork himself is to be believed on this issue, jurists, all throughout the history of antitrust, have made findings which show them to be either unconcerned, or incompetent with regard

to this issue. Says the author of this book:

> most of the mergers the Supreme Court strikes down and the "price discriminations" the Robinson-Patman Act is intended to stamp out . . . are examples . . . which involve only efficiency gain and no dead-weight loss. (pp. 108–9)

A second difficulty has to do with the interpretation of the demand curve. In Bork's neoclassical construal, the demand curve is seen as an existing entity. True, this author concedes that "we do not know the location of any of the sides of the triangular area A_1," (one of which is the demand curve), but this is only an inconvenience. "They are what we have to estimate" (p. 108) is the way to get around this annoyance. But this will not do.[3] Demand curves are not "out there," ready to be measured by the modern econometric tools of analysis. Rather, they are, except for one dot (P_2Q_2, in this case), hypothetical alternatives which never come into play. Demand curves answer the question, Suppose that everything else in the universe were exactly the same as it now is, with the one exception that price, instead of being at P_2, is at some other level; then, how much would the customer be willing to buy at that other price. In the event, the price however, was P_2 and the consumer wished to purchase Q_2. That is all we know, or indeed, can know. The other points on this demand curve never come into play at all. They are contrary to fact conditionals. There is no sense in the notion that we can "estimate" them. There is no doubt that economists can look at other instances (other times, places, people) where different quantities of this item were purchased at different prices (and even attempt to control for the fact that the prices and quantities of substitutes and complements have altered, to say nothing of changing incomes, inflation, employment and even the weather) and in that way trace out a "demand curve." But this has little or nothing to do with what is depicted in that diagram. The point is, a demand curve is a unique non-repeatable hypothetical "event." All attempts to "measure" it are thus doomed to failure.

So far, we have been implicitly assuming that it is legitimate to make interpersonal comparisons of utility. It is now time to relax this assumption. In point of fact, this methodology is not tenable. It is perfectly reasonable to maintain that all trade benefits both parties in the *ex ante* sense. This is the reason they engage in such an activity, and this conclusion is part of the

bedrock of the science of economics. It is quite another matter, however, to deduce from the failure of a trade to take place (in the free marketplace, Q_1Q_2 remains unsold, because it is not offered for sale) that had occurred, the buyer's welfare would have exceeded the loss to the seller. This contrary to fact conditional implies that interpersonal comparisons of utility indeed can be made—without offering any evidence or reason for such an assertion—and moreover that the consumer's benefit exceeds the producer's loss. The latter contention would remain unproven even if interpersonal utility comparisons were valid in the first place. And yet, unless this assertion is true, the value of A_1 would be negative, not positive as claimed by Bork. If a "garden-variety price-fixing ring"[4] succeeds in raising prices from P_1 to P_2, there is thus nothing within the strict science of economics that can be used to show that this will reduce social (as opposed to consumer) welfare.

Still another fallacy of the two vectors approach lies behind the very drawing of the cost curves in this diagram, AC_1 and AC_2. There is nothing untoward about using them for textbook illustration purposes only. Bork, however, is attempting to justify antitrust, a legislative enactment which can fine or even jail businessmen for the "crime" of price fixing, on the basis of this analysis. Under such circumstances it is reasonable to look more closely into these cost curves, an integral part of the analysis.

Cost, in economic theory, is not by any means limited to out of pocket expenses, even including implicit rent. These are part of the concept, but in its most sophisticated interpretation, cost is equivalent to the next best opportunity foregone by making any particular choice. As such, cost can only be a subjective notion (Buchanan 1969; Buchanan and Thirlby 1981; Mises 1963). The next best opportunity foregone by the choice to sell Q_1 need not be anywhere close to P_1. In any case, it can never be known by a third party, for example by the Antitrust Division of the Justice Department, the government bureau charged with punishing or incarcerating price fixers.

More radically, the cost of all saleable items is actually zero, and therefore can have no effect in any case. States Rothbard (1962, p. 604):

> there is no such thing as costs (apart from speculation on a higher future price) once the stock has been produced. Costs take place along the path of decisions to produce—at each step along the way

> that investments (of money and effort) are made in factors. The allocations, the opportunities foregone, take place at each step as future production decisions must be taken and commitments made. Once the stock has been produced, however (and there is no expectation of a price rise), the sale is costless, since there are no advantages foregone by selling the product (costs in making the sale being here considered negligible for purposes of simplification). Therefore, the stock will tend to be sold at whatever price is obtainable. There is no such thing, then as "selling below costs" on stock already produced.

One can go even further. Not only is the sale costless when it occurs, it may even occur at less than zero costs. For example, if I have piled up a horde of tomatoes, or shoes, or steel, or tires, and I cannot find a customer for them, then, at least in a strictly private property rights-no trespassing world (Rothbard 1973, p. 1082), I will have to pay for their removal. Under such conditions the costs of the sale will be negative. That is, if the disposal costs are $500 (I have to pay $500 to rid myself of this unwelcome stock), then, *ceteris paribus*, I should be willing to sell it to a customer at any negative price above this level. For example, if I sell at $200, then I make a profit of $300. Even though I have to pay a customer $200 to cart away my merchandise, I am better off by $300 because the private sanitation hauler would have charged me $500.

Sovereignty

Yet another problem arises with regard to the issue of individual versus consumer sovereignty. Let us allow Bork to articulate this thesis in his own words. As far as consumer welfare is concerned, he states it as follows:

> (antitrust) can only increase collective wealth by requiring that any lawful products, whether skis or snowmobiles, be produced and sold under conditions most favorable to consumers. (p. 91)
>
> Productive efficiency, like allocative efficiency, is a normative concept and is defined and measured in terms of consumer welfare. (pp. 104–5)

But this rendition of the goal is problematic. Why should the goal of antitrust be to enhance *consumer* welfare alone? Why, for that matter, should the aim of any public policy be so narrowly defined? If it is taken for granted that some sort of welfare be maximized by legislation, why not attempt to maximize *total* welfare, that is, the welfare derived by *both* producer and consumer.

It is possible to employ a *reductio ad absurdum* in this regard. If we really want to enhance the welfare of consumers only, as opposed to both consumers and producers, all sorts of other enactments become justifiable which would not have been otherwise. For example, if there were any producer's surplus (economic rents earned by manufacturers) then these should be summarily seized, and handed over to consumers. Needless to say, however, no warrant for any such action has ever been given.

This policy, moreover, is internally inconsistent, for it will tend to counteract Bork's own goal of augmenting consumer welfare. We cannot safely ignore people as producers if we are attempting to maximize their well-being as consumers. People are people, and typically play a dual role as both consumers and producers. If we hurt them in one role, they are necessarily hurt in the other as well.

Rothbard's remarks (1962, pp. 560–61) seem to be addressed directly to the Bork hypothesis, although they were written almost two decades beforehand:

> We have seen that in the free market economy people will tend to produce those goods most demanded by the consumers. Some economists have termed this system "consumers' sovereignty." Yet there is no compulsion about this. The choice is purely an independent one by the producer; his dependence on the consumer is purely voluntary, the result of his own choice for the "maximization" of utility, and it is a choice that he is free to revoke at any time. We have stressed many times that the pursuit of monetary return (the consequence of consumer demand) is engaged in by each individual *only to the extent that other things are equal*. These other things are the individual producer's psychic valuations, and they may counteract monetary influences. An example is a laborer or other factor-

> owner engaged in a certain line of work at less monetary return than elsewhere. He does this because of his enjoyment of the particular line of work and product and/or his distaste for other alternatives. Rather than "consumers' sovereignty," it would be more accurate to state that in the free market there is *sovereignty of the individual*: the individual is sovereign over his own person and actions and over his own property. This may be termed *individual self-sovereignty*. To earn a monetary return, the individual producer must satisfy consumer demand, but the extent to which he obeys this expected monetary return, and the extent to which he pursues other, nonmonetary factors, is entirely a matter of his own free choice.
>
> The term "consumers' sovereignty" is a typical example of the abuse, in economics, of a term ("sovereignty") appropriate only to the *political* realm and is thus an illustration of the dangers of the application of metaphors taken from other disciplines. "Sovereignty" is the quality of ultimate political power; it is the power resting on the use of violence. In a purely free society, each individual is sovereign over his own person and property, and it is therefore this self-sovereignty which obtains on the free market. No one is "sovereign" over anyone else's actions or exchanges. Since the consumers do not have the power to coerce producers into various occupations and work, the former are not "sovereign" over the latter.

To this it may be added, in order to bring it into more direct relevance with Bork, that not only do the "consumers not have the power to coerce producers into various occupations and work," but in the free society they do not have the power to coerce the producers to locate at Q_1, as opposed to their preferred point, Q_2. How does Bork describe the distance Q_2Q_1? He claims that this is a quantity of product the consumers are willing to purchase, at a price above the costs of production, and yet, because of nefarious or at least questionable doings on the part of the seller, the customer is disappointed in this desire. The area between Q_2 and Q_1, above the cost curve AC_1 and below the demand curve is defined as A_1, the dead-weight loss. This is the

amount of welfare that could have been enjoyed by the consumer, but is not.

It is only by focusing on the buyer at the expense of the seller that Bork is able to characterize A_1 as a region of dead-weight loss. In order to see this, imagine for a moment that this author had subscribed to the notion of individual, not consumer sovereignty. If so, then how could we most accurately characterize the distance Q_2Q_1? No longer can we depict this merely as an amount of quantity that the consumer wishes, but is unable to buy. For under our present assumptions, there are two sides to this transaction, not just one. Now we can more accurately delineate Q_2Q_1 as a quantity that the consumer wishes to purchase, alright, but also as an amount that *the manufacturer does not wish to sell*. Similarly, our description of A_1 can no longer be one of unambiguous "dead-weight loss." Now, it must be characterized as an amount of welfare contended over by two different parties. If the sale takes place at Q_1, yes, Bork is correct[5]; the consumer will gain this amount of welfare. But the producer will also lose (presumably, he is unwilling to sell any more than Q_2 because past that point, his marginal revenue lies below his marginal cost). So, it is by no means an unambiguous dead-weight loss A_1 which must be set against a clear gain in cost savings of A_2; rather, A_1 is a loss only to one side of the trade, but a gain to the other.

It is possible for the Borkian side of this debate to articulate several objections to the Rothbard perspective on individual versus consumer sovereignty. First, it might be maintained, following Hutt (1940), that producers are themselves consumers. For example, whenever a seller acts in a way other than to maximize money returns, he is really "buying" services from himself. Therefore, the concept of consumers' sovereignty is wide enough to incorporate both producers and consumers.

If we adopt this way of looking at the matter, there are now two sets of consumers. The first, call them the consumer-consumers, are the people for whom Bork drew his demand curve. These are the ones who are purportedly suffering from the output restriction from Q_1 to Q_2. The second, call them the producer-consumers, the ones engaged in this (unwarranted, improper, according to the neoclassical school) restricting of output. These two sets of consumers, according to Bork, are acting incompatibly with one another.

As Rothbard (1962, p. 562) trenchantly states,

> In the aforementioned general sense, "consumption" rules in any case. But the critical question is: *which* "consumer?" The market consumer of exchangeable goods who buys these goods with money, or the market producer of exchangeable goods who sells these goods for money?

The point is, noticing that the producer, too, engages in consumption does not help one bit in determining whether we should force, through the majesty of the law, the producer-consumer to locate at Q_1 instead of Q_2, in behalf of the consumer-consumer. Rather, it sets up an infinite regress.

A second possible objection Bork could resort to was used by Hutt. As Rothbard notes (quoting Hutt), this is to distinguish between

> when a producer withholds his person or property out of a desire to use it for enjoyment *as a consumers' good* . . . in which case it . . . "is a legitimate act, in keeping with rule by the consumer. On the other hand, when the producer acts to withhold his property in order to attain more monetary income than otherwise . . . then he is engaging in a vicious infringement on the consumers' will." (Rothbard 1962, p. 563)

This, too, however, has been answered by Rothbard. He notes that it is not difficult, but rather impossible, to distinguish between these two motives. Secondly, the only reason more profit can be earned at P_2Q_2 than at P_1Q_1 is because of the inelasticity of demand between the two points. But this arises out of consumer (consumer-consumer, that is) choice! If the consumers were unhappy with this state of affairs, they could

> easily make their demand curves *elastic* by *boycotting* the producer and/or by increasing their demands at the "competitive" production level. (Rothbard 1962, p. 564)[6]

Predation

If it is impossible, not merely difficult, to distinguish between psychic income and profitability as motives for "withholding," this applies as well to that between "deliberate aggression" in

order to drive rivals from the market and in order to profit maximize. Here are Bork's views (p. 144) on the subject:

> Predation may be defined, provisionally, as a firm's deliberate aggression against one or more rivals through the employment of business practices that would not be considered profit maximizing except for the expectation either that (1) rivals will be driven from the market, leaving the predator with a market share sufficient to command monopoly profits, or (2) rivals will be chastened sufficiently to abandon competitive behavior the predator finds inconvenient or threatening.

But the employment of the word "predation" is surely another illegitimate abuse of a metaphor taken from another discipline. Predation is what the lion does to the zebra. Strictly speaking, there can be no such activity in the free economy. For there is not even the hint of a charge, in Bork or anywhere else, that the business firms who have in this way gained the attention of the Antitrust Division have initiated violence against their competitors. If "predation" is to be given a commercial implication, it would be reasonable to confine it to such activities as fraud, theft, extortion, or "making him an offer he cannot refuse" in the parlance of a Mafia Godfather. The contrast between this and the acts of the Borkian "predator" are stark indeed. The latter "deliberately aggresses" against his competitors by offering his *customers* a better deal than they can obtain elsewhere. If this is predation, then the consumer, for whom Bork seems to have an unlimited regard, would presumably ask for more of it.

Our author lists three forms of predation. They are price cutting, disruption of distribution patterns, and misuse of government processes. Only the second is important to discuss, and we shall concentrate our remarks on it. This is because of the first, price cutting, Bork spends thousands of words (pp. 144–55) showing that neither economic theory nor economic history give support to the contention[7] that this is an efficacious way of engaging in predatory behavior.[8] As to the third, this is indeed "predation" of the sort mentioned above. Here, Bork properly castigates the initiation of frivolous lawsuits "in order to harm an actual or potential business rival" (p. 159). But the answer is not antitrust; it is the awarding of severe damages to those victimized by this practice. Under this rubric we can also add

false and fraudulent advertising. This, too, is a legitimate role for the forces of law and order; but it cannot be used to justify the continued existence of a Federal Trade Commission, most of whose activities are aimed at suppressing legitimate commercial endeavors.

What, then, is "disruption of distribution patterns?" Bork (p. 156) explains:

> In any business, patterns of distribution develop over time; these may reasonably be thought to be more efficient than alternative patterns of distribution that do not develop. The patterns that do develop and persist we may call the optimal patterns. By disturbing optimal distribution patterns one rival can impose costs upon another, that is, force the other to accept higher costs. This may or may not be a serious cost increase, but if it is (and the matter can only be determined empirically), the imposition of costs may conceivably be a means of predation. The predator will suffer cost increases, too, and that sets limits to the types of cases in which this tactic will be used for predation. There is a further complication, moreover, in that the behavior involved will often be capable of creating efficiencies. Thus, the law cannot properly see predatory behavior in all unilaterally enforced changes in patterns of distribution.

There are several difficulties here. First, Bork must have in mind an exceedingly static world. That is the only situation in which his scenario could even roughly approximate the truth. Pattern persistence, however, is surely impossible in the modern day, under a regime of even limited economic freedom, where people are able to introduce new products (e.g., computers), implement new selling strategies (e.g., supermarkets), initiate new forms of business organization (e.g., franchising). Further, just because a distribution pattern has "persisted" in the past does not mean that it is optimal today, and certainly not tomorrow (Kirzner 1973).

Second, the "further complication" is problematic. If this pattern of disruptive behavior is "often . . . capable of creating efficiencies" how then can we distinguish between those alterations in business procedure which emanate from "predation," and those which come about due to enhanced

efficiency? The empirical determination called for in this regard is no comfort; without any criterion for distinguishing between these phenomena, number crunching for the sake of number crunching will amount to nothing more than a full employment bill for out of work econometricians.

Third, there is no such thing as a "unilateral" change in the market. The market is no more and no less than the concatenation of all voluntary trades which take place in a given area. But all commercial exchange is, by its very nature, bilateral, not unilateral. It takes two to tango, and it takes two to trade.

Fourth, there are no "enforced" changes in patterns of distribution, or of anything else for that matter with regard to the market. If there is any initiation of physical force or violence, it is necessarily not part of the market (Rothbard 1962).

Another disappointment with Bork's treatment of this subject is that he offers only two instances of disruption of distribution patterns that can be predatory, and there are difficulties with each. First is the use of exclusive dealing contracts. But he undermines this example with the concession that (p. 156) "it is far more probable that . . . exclusive dealing is more efficient and has (been) adopted . . . for that reason." Further undermining this case is the statement (p. 157):

> The law can usefully attack this form of predation only when there is evidence of specific intent to drive others from the market by means other than superior efficiency and when the predator has overwhelming market size, perhaps 80 or 90 percent.

The problem is not that it is difficult if not impossible to attain evidence of such specific intent. It is, more radically, that *all* commercial endeavors are, in effect, an attempt to drive others from the market through superior efficiency. The drawback to this perspective is that Bork refuses to define "efficiency" broadly enough so as to include producer's welfare as well as that of consumers.

The second example vouchsafed to us is that of the board of trade. Boards of trade, it would appear, can act capriciously. But such organizations are, at bottom, only private clubs. They have no special legal dispensations. If members do not like the way that board of trade A is handling its affairs, they are free to set up another, competing, board of trade, B. This threat will usually

serve to compel the extant trade board to act reasonably.

Apart from these specific difficulties with Bork's theory of predation, there is the underlying philosophical problem[9] that it attempts to make distinctions where there are no discernable differences. Let us, in order to illustrate this point, attempt to construct several new analogues to economic "predation" in other, unrelated, fields.

The bottom line for Borkian "predation" is that it is legitimate to actively compete in order to earn profits; even "deliberate aggression" is allowed. However, one must act so as to earn profits directly; one may not indulge in business practices that sacrifice present profits, the sole purpose of which is to bankrupt a competitor, in order to earn profits later on, in the absence of the competition which would otherwise have been supplied by it.

Right now, in football, the goal is to move the pigskin in a forward direction, in order to score points. This is analogous to earning profits. If we were to adopt Bork's philosophy to this context, we would have to ban any and all actions which undermine this end, in the short run, such as the quarterback dropping back (and *losing* valuable territory) in order to pass. Even the handoff from the center to the quarterback would have to be re-evaluated in the light of this legal philosophy. And what are we to make, in this context, of the sacrifice fly in baseball, or the bunt to advance a base runner. Surely, the purposeful loss of a valuable commodity (one of the three outs) even for the long-run good purpose of scoring an extra run would have to be regarded as illegal. Similarly, the sacrifice of a queen or some other valuable piece in chess would have to be ruled out of court. Is there really that much difference between such short-run counter-productive behaviors in the sporting world and their counterparts in the world of commerce such as local price cutting[10] or selling some goods at a loss (loss leaders) in order to attract customers into the store?

Take another case. You are the author (composer, producer) of book (song, movie) A, I am the author of book B. These books are on the same subject; they are rivals, or competitors. I am in this for the money; I have written this book in order to maximize profits. I have been asked to review your book in a newspaper, magazine, or journal. I give it a sharply critical negative review. An implication of Bork's analysis is that this act of mine ought to be proscribed by law, for it is "the employment of a business practice that would not be considered profit maximizing except

for the expectation . . . that [a] rival will be driven from the market." Surely the implication which arises from Bork's analysis is intolerable; just as assuredly, it follows the logic of his interpretation. Did I not have a competing book in the market, I would not have so denigrated your effort; thus, my review would not have been profit maximizing but for the expectation that I could thereby entice potential book buyers from you to me.

Generalizing still further, from business to the world of interpersonal relations, what are we to make of the man who denigrates his rival for the affections of a woman? In the ordinary course of events, if Roger tells Elaine that Joe is a cad, a blunderer, a lazy incompetent moocher, we would just write it down to the rights of free speech. But the Borkian perspective applies here as well, provided that Roger would have said no such thing were Joe not competing with him for Elaine's hand in marriage. But if this scenario applies, again we have a case where there is

> deliberate aggression against one or more rivals through the employment of (interpersonal) practices that would not be considered profit maximizing except for the expectation that (1) rivals will be driven from the (marriage) market, leaving the predator with (the object of his desires), or (2) rivals will be chastened sufficiently to abandon competitive behavior the predator finds inconvenient or threatening.

Yale Brozen

Proper targets

Yale Brozen (1982), while not so vociferous in his defence of antitrust as Bork, clearly sees a positive role for this "curious institution." In his view (p. 14):

> The antitrust agencies should be devoting themselves . . . to detecting and prosecuting the types of explicit collusion that restrain output. In devoting investigatory and prosecutorial effort to persistently concentrated industries, increasingly concentrated industries, and dominant firms, the agencies selected exactly the wrong targets. They

> are themselves restraining output and the growth of productivity.

This statement embodies the theme of the book. The Antitrust Division should not be rescinded. It should not be eliminated, root and branch. Rather, it has a legitimate role to play. If it could but free itself from concern with the red herring of high concentration, and focus instead on "explicit collusion," and "output restraint," it could make a positive contribution to society.

The problem with this perspective is not that Brozen has failed to put his finger on an egregious policy (attacking concentration); he has, in a thorough going and incisive way. This course of action has led to a far poorer and less efficient economy than otherwise would have obtained. The difficulty is, rather, that there are *good* targets that the trustbusters should instead be aiming their fire at, in his view.

We have already discussed the issue of restraining output in the context of interpersonal comparisons of utility. But we can also call into question Brozen's opposition to "restraining output and the growth of productivity" under the rubric of welfare economics. Why should these goals be the *sine qua non* of economic public policy? G.D.P., physical output, and productivity growth, however important, are, still, themselves derivable from a principle even more consequential: individual choice. If the economic actor wishes, say, to pursue leisure instead of money income, human welfare will be better enhanced by allowing that decision to stand than by rescinding it, even for the persons "own good," and by coercively bringing about a situation where there are more goods and services in the economy than are compatible with his initial determination.

This is precisely what has occurred on the part of the those chosen as proper targets for the Antitrust Division by Brozen. They are guilty of no more than explicitly agreeing, among themselves, to produce less than Brozen, an outside observer, would compel them to produce.

Concentration

The next bone of contention to be raised has to do with concentration. There is hardly a commentator more critical with regard to the way in which concentration ratios are used in U.S. jurisprudence than Brozen. For example:

> In order to find Alcoa guilty of violating the antitrust laws, Judge Learned Hand had to find that Alcoa "controlled" the secondary aluminum market, despite the production of secondary aluminum by many suppliers, as well as that it had a "monopoly" of primary aluminum. But he never considered whether aluminum competes with galvanized sheet metal, copper, magnesium, zinc, tinplate, glass, tin, and other materials used for some of the same purposes as aluminum. (p. 46)

And again:

> The measure commonly used is total shipments from plants "assigned" to an industry by the Bureau of the Census. A plant's entire output is assigned to the industry whose products make up the plurality of total shipments from the plant. If a plant belonging to a leading firm produces trucks and refrigerators, and more than half the value of its shipments is trucks, all the plant's shipments are assigned to the motor vehicle industry. That firm will then show a higher share of motor vehicle industry shipments tha[n] its actual share. (p. 50)

Here is a further example:

> Industry definitions are generally based on technology or on inputs employed, not on markets. Separate concentration ratios are reported for beet and sugar cane refiners, for example. But since beet and sugar cane refiners compete with each other for the same customers, these ratios mean little in market terms. Their outputs are indistinguishable. In addition, glucose, dextrose, and fructose sugars are produced by the corn wet milling industry. Maple syrup and honey are produced by still two more industries. Artificial sweeteners are produced by still another industry. There is no concentration figure reported for the sweetener market. Although cane refiners compete with beet refiners and both compete with com millers, maple sap boilers, beekeepers and chemical firms, no account is taken of this in measuring concentration. (p. 51)

But the case is even worse than this. For artificial sweeteners *also* compete against the Jane Fonda Workout Tapes, against vacations at fat farms, and indeed, against just about everything else, such as chess sets, shoes, paper clips and light bulbs, in the sense that the family budget can stretch only so far, and thus any increased expenditure on practically *anything* means a reduction in spending on virtually everything else.

Unfortunately, Brozen's criticism of concentration measures is limited to such Census Bureau practice. He does not take the more radical step of condemning the logical coherence of concentration ratios *per se*.

In order to define a concentration ratio, an "industry," "line of commerce," or relevant "market" must first be defined. In the view of Brozen, and indeed, of virtually the entire economics profession,[11] this can be accomplished in a non-arbitrary manner through the use of cross elasticities. But these statistics are not objective "facts" of economics; they are not constants, akin to gravity in physics. Rather, they are necessarily limited as to scope and time dimension, and this leads to intractable problems. For example, it is well known that the greater the length of run, the higher the elasticity. If the price of x rises, the quantity demanded of substitutes cannot rise by very much, if at all, immediately; in the short run, it can rise by more; in the long run, and particularly in the very long run, it can increase by a very much greater amount. So, which is the "proper" length of run? Merely to ask this question is to see the utter arbitrariness of any answer, and thus of any such measure.

Even if this objection can somehow be answered, there is still the problem of the limited nature of any and all cross elasticity measures. A spurious objectivity is lent to the whole enterprise by stating that the cross elasticity of y with respect to x is 3.0. A more meaningful way of articulating this information is to say something along the lines of "In Ohio, in 1967, allowing a length of run of one year, the cross elasticity of y with respect to x was found to be 3.0." The former allows for easy generalizability; not so, the latter.

Conspiracy

On numerous occasions throughout his book, Brozen attacks conspiracy. For example, if express conspiracy occurs, present laws are adequate, and there is no need to outlaw concentration to make this actionable (p. 140).

"Antitrust should focus its attention on improper exclusionary devices rather than on concentration or dominance *per se*. . . . [I]t should seek out trade restraining, explicit collusion" (p. 405).

This author (p. 147) also characterizes price fixing as "commercial conspiracy." Apart from being rather excessive, this verbiage amounts to mere emotivism. For a conspiracy is nothing more than an agreement opposed by the speaker. Bertrand Russell once said "I'm firm, you're stubborn, he's a pig-headed fool." Cognitively, these three expressions all mean the same thing; they only have different emotional content. Similarly, we can now say, "I [straightforwardly] agree, you [disreputably] connive, he engages in [criminal] conspiracy." There's not a dime's worth of difference between these three modes of expression on the factual plane; emotionally, they are worlds apart. The point is, *every* agreement or contract of which the speaker disapproves can be a conspiracy; the term is without intellectual or cognitive merit.

Brozen (1982, p. 151) even goes so far as to describe price fixing as a "defrauding" of customers. But why should this be so? I own a widget; Joe owns a widget. Each of the two widgets is the private property of myself and Joe, respectively. We agree (connive? conspire?) not to sell our own widgets, those over which we each have legitimate control, at less than $1 each. We do not compel other sellers to go along with this plan. Even less do we compel buyers to make purchases at this price. Why should this be considered a fraudulent act—a veritable act of theft—upon our customers?

Perhaps this point can best be made in another context. Our author correctly analyzes advertising, and defends this practice from the charge of being an illegitimate barrier to entry. In the following passage (p. 159), each time the word "advertising" is mentioned in the text, "conspiracy" has been added in parentheses. Try the mental experiment of substituting the latter for the former:

> The essence of the argument that advertising (conspiracy) constitutes a barrier to entry is that a new firm finds it difficult to gain customers because advertising (conspiracy) ties them to existing firms. A new entrant, it is argued, faces the "prohibitively" expensive task of advertising (conspiring) to offset the prior advertising (conspiracy) of existing firms.

> This view is naive and, in some of its renditions, moralistic. Presumably, firms advertise (conspire) because it is in their interest to do so. But advertising (conspiracy) is expensive to existing firms as well as to potential entrants. It must be productive in some way to be justified. It is not a net social loss; if it were, other firms could provide the same service without advertising (conspiracy) and charge less. If a new firm finds it necessary to advertise (conspire), it is because whatever advertising (conspiracy) does, customers want done.

This exercise can also be performed substituting "collude" or "price fix" or "horizontally merge" for "advertise." If so, the chief conclusion reads as follows: If a new firm finds it necessary to price fix (horizontally merge), it is because whatever price fixing (horizontally merging) does, customers want done.

Richard Posner

Posner's (1986) contribution to the case for antitrust is truly remarkable. In most instances, authors who favor this public policy content themselves with marshalling the strongest arguments they can in its behalf, usually leave criticism of the points they make to their intellectual opponents. Our present author, in contrast, not only makes as strong a case for government intervention in this regard as anyone else, but, very unexpectedly, also furnishes us with some of the sharpest criticism of it to be found anywhere. At the end of the day, the careful reader is forced to conclude that Posner is indeed an enthusiastic supporter of government meddling with the free enterprise system, but cannot help but wonder exactly why this should be so.

At the outset, however, before we deal with his brief in behalf of government bashing successful business (for that is what, at bottom, antitrust is all about), let us attempt to anticipate Posner's reaction to our characterization of his work. This will provide a good introduction to his treatment of antitrust, insofar as he employs the same methodology in the one instance as in the other: after stating his thesis, he undermines it himself.

In his view:

> Monopoly . . . and other unhappy by-products of the

> market are conventionally viewed as failures of the market's self-regulatory mechanisms and therefore as appropriate occasions for public regulation. But this way of looking at the matter is misleading. The failure is ordinarily a failure of the market *and* of the rule of the market prescribed by the common law. . . . The choice is rarely between a free market and public regulation. It is between two methods of public control—the common law system of privately enforced rights and the administrative system of direct public control—and should depend upon a weighing of their strengths and weaknesses in particular contexts. (p. 343)

In other words, it is improper for the present author to characterize Posner as an interventionist because of his justification of the antitrust system. Why? Because public policy always[12] involves one or the other method of public control. Notice how neatly, with this highly unusual definition, Posner retires one of his harshest critics from the field: the economist who insists upon the efficacy of the laissez-faire capitalist system. One in which there is no public control whatsoever, neither in defining the rights of person or property, nor in defending them. (For examples, see Benson 1989, 1990; Friedman 1989; Hoppe 1989, 1992a, 1992b, 1992c; Rothbard 1970, 1973, 1982.)

But this simply will not do. It is one thing to reject a philosophy due to its flaws. It is quite another matter to make it a definitional issue. Despite Posner, we continue to maintain that in addition to his two methods of public control, there is a third option: no public control at all. This is at least a potentially viable option, which should sink or swim based on its own merits. It does not deserve to be ruled out of court, definitionally, before the process of analysis even begins, as Judge Posner would have it.

Our best authority for this stance, somewhat paradoxically, is Posner himself. That is to say, he, on numerous other occasions, does make the more usual distinction between free markets and governmental meddling in them. He allows for a third alternative, apart from the "two methods of public control—the common law system and the administrative system" mentioned above, namely, full free enterprise. He must do so, otherwise government meddling is an impossibility. All intervention must fall into one or the other of these two

categories.

Consider the following:

> The problem . . . with using one government intervention in the marketplace (subsidizing workplace injuries and illnesses) to justify another (regulating workplace safety and health [through OSHA]) is that it invites an indefinite and unwarranted expansion in government. (p. 312)
>
> [or,] if as generally assumed, the private sector is more efficient than the public. (p. 493)

Based on his statement of p. 343, on monopoly, this is incomprehensible. How can the private sector be more efficient than the public sector (or the reverse) if there is no distinction between public and private because there are, really, only two different kinds of public sectors? How can there be government intervention into the economy, if "this way of looking at the matter is misleading?"

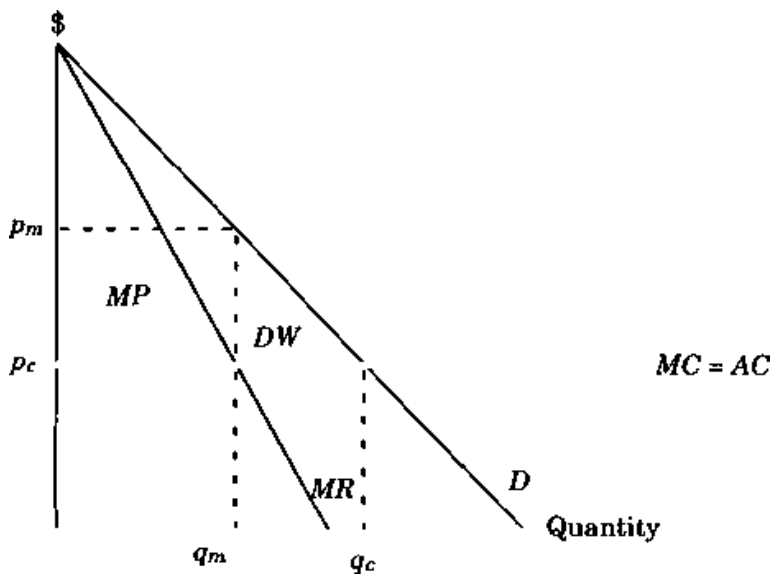

Figure 2

Source: Richard Posner. *Economic Analysis of Law*, 3rd ed. (Boston: Little Brown, 1986), p. 256.

With this brief introduction, we are now ready to consider the rather weak Posnerian argument for antitrust, and then, paradoxically, his very strong and emphatic intellectual rejection of it, and on the basis of it, somehow, his championing of this

public policy.

Our author starts off with the same overused diagram, used by virtually all neoclassical economists. We are treated, once again, to the specter of the downward sloping demand, an *MR* curve which lies below *AR*, a flat *MC*=*AC*, on the basis of which we derive the dead weight loss due to "monopoly."[13]

But no sooner does Posner make this traditional presentation than he begins the process of subtly undermining it. He says one thing in one place, and the contrary in another, sometimes stating the thesis and the antithesis on virtually the same page. At the very outset, even before the introduction of his analysis, Posner states,

> the monopoly price . . . is the price that a firm having no competition or *fear thereof* would charge. Competition would make the price untenable. (p. 252, emphasis added)

The problem with this is that it is the rare businessman, "monopolist" or not, who has not even the *fear* of competition, let alone some actual competition or other itself. If attainment of "monopoly" price is restricted to such people, it really is an "academic concept" (p. 253) with little or no practical implication. Further, Posner enhances this criticism by conceding that "the establishment of a monopoly price creates an incentive for new sellers to come into the market" (p. 270). However, no sooner has he entertained the point that antitrust may be of only academic interest, but that he reverses field and takes it all back:

> The possibility of entry may seem to make monopoly an academic concept. But sometimes entry takes a long time, or is forbidden, or the new entrant is not able to produce at so low a cost as the exiting firm. (p. 253)

For our purposes, we may safely ignore the case where entry is forbidden. In the modern context, entry can only be prohibited by the state, and if this occurs, we are clearly no longer in the realm of laissez-faire capitalism, the institution we wish to defend against the Posnerian attack.[14]

As well, the worry about entry taking a long time is also without merit. If all Posner wants to do is to show that the market does not always rationally allocate resources,[15] he need not resort to "monopoly." All he need do is point to the fact

that the market is rarely if ever in even partial equilibrium, to say nothing of general equilibrium. But unless it is, there are always opportunities for reallocation of resources which are wealth enhancing (Kirzner 1973). If so, then by stipulation the market misallocates resources continuously. The only problem with this approach is that it gives no reason to expect that any system can do better. And indeed, if we have learned anything from the demise of the Soviet Empire, it is clear that some systems do far worse.

But we may be doing Posner an injustice here.[16] Assume (as neoclassicals do) that price conspiracy has no redeeming virtues for consumers or for anyone else. Also assume that such agreements tend to fail over time. The issue, then, is: how *long* does it really take? If the law can put an end to an activity (without redeeming virtue) *immediately*, then why wait for the "market to work?"

There are two responses to this. First, the less radical argument, which is highly compatible with the neoclassical world view: the market works faster than government. The government typically suffers from bureaucratic and political arteriosclerosis: hearings must be held, rent seeking bribes arranged, sometimes political votes or referenda must be conducted. Even without unusual postponements, the market functions more quickly than the state. If we have learned anything from Hayek (1973), it is that a price system is by far the best communicator known to man.

The more radical response must leave the neoclassical realm and enter that of the Austrian. Here, we must withdraw the previously made assumptions. We can no longer accept the view that "conspiracy" has no redeeming social values. On the contrary, we assert, all commercial agreements between two consenting parties benefit the both of them, at least in the *ex ante* sense.

Of the three grounds mentioned by Posner, he is on the firmest foundation with regard to cost, the subject to which we now turn. On this subject Posner states: "The conclusion that *DW* in figure 2 is a net social cost rests on the assumption that a dollar is worth the same to consumers and producers" (p. 256).

Note the position in which this supposition places the analysis. The whole—neoclassical—case against "monopoly" is that it misallocates resources. Deadweight loss is Exhibit A in the brief. But the existence of net social costs rest upon the claim that "a dollar is worth the same to consumers and producers."

But what is the status of this claim? It is a mere "assumption." Not a scintilla of evidence is given in its behalf. Not only is this claim merely assumed, not proven, it is not even discussed. Further, it is called into question in a different context by its very author, who states, "the shape and height of people's marginal utility curves are unknown, and probably unknowable" (p. 436). [17]

Let us be clear on what is being said. We are not claiming that Posner has committed a blatant contradiction here. He is not *saying in* one place that marginal utility is unknowable, and in another that we know it well enough at least to fashion public policy on the basis of it. Nor does he hold that interpersonal comparisons of utility are, and elsewhere also are not, possible. However, what he does, is, if anything, even more problematic. [18] For surely knowledge of interpersonal comparisons of utilities are more risky and difficult than about the size and shape of a single person's marginal utility function. Posner throws up his hands in defeat at the prospect of obtaining information on the less complex of this pair, and bases his justification of antitrust policy on the more complex. The laws of logic would appear to indicate that if proposition A (interpersonal comparisons of utilities) is less secure than proposition B (the size and shape of a single person's marginal utility function), and if public policy cannot be grounded on the basis of B, then it certainly cannot be founded on the basis of A.

Nor does this exhaust the incompatibilities between Posner's defense of antitrust and his statements in other contexts. In the former case, he relies heavily on the existence of an objective, presumably measurable set of cost curves. What then, are we to make of the following quotes:

> Yet it would be difficult for a court to compute the firm's marginal cost. (p. 286)
>
> Suppose a firm makes many different products, and some of the inputs—the time of its executives, for example—are the same for the different products. If the firm cuts the price of just one product, how should executive salaries be treated, in both the short and the long run, in deciding whether the price cut is predatory? (p. 288)
>
> An important but invisible cost of a natural resource such as gas is the foregone opportunity to use it in the future. (p. 338)

These statements present difficulties. This is because foregone opportunities are, by their very nature, subjective. No one can know, judging from actions[19] what the next best alternative was to any decision. If a man buys A at the cost of $1, we know he preferred this item to the money he paid for it. But we don't know his alternative cost: what he would have done with this financial resource had he not just purchased A. Would he have put it in the bank? bought B instead? purchased a stock or bond? placed it under his mattress? Only the man himself can know anything about this contrary to fact conditional.

And yet Posner (and all neoclassicals) makes bold to draw cost curves of other people, purportedly based on their foregone opportunities. But he can never know these even in principle! Does this stop him from weaving apologetics for government intervention on the basis of these curves? Not a bit of it.

States Posner: "Theft is also 'just' a transfer payment; the victim's loss is the thief's gain." But this is not true, unless it can be shown that the subjective evaluation placed on the item by the thief and his victim is identical, a manifest impossibility. Given that there are no utils (they are only a figment of the imagination of the neoclassical economists) and thus that there is no way of comparing the satisfaction of two different people, the thief and the property owner, Posner's statement cannot be true. He asks (p. 258 n. 4), "Is this clearly so when the theft is of a good other than money?" It would appear that the implication here is that it is true that the victim's loss equals the thief's gain, when the good is other than money. If this is what Posner has in mind, he is quite correct. If the thief takes a bicycle or an oxygen tent, for example, he and the victim might place quite different evaluations on the good in question. But, contrary to Posner, the same analysis applies to money. Suppose the thief steals $100. Then, to be sure, the victim loses the $100, and the criminal gains an identical amount. But they may have used these funds for very different purposes, and derived very different amounts of satisfaction from this money, for all we know. We as outside third parties are in no position to distinguish between alternative uses. Suppose that the victim (the thief) were to use the $100 for successful cancer research—this $100 is the straw that breaks the back of the problem and uncovers a cure—and the thief (victim) for tying one on. Can we assert that the former brings about more utility than the latter? Not unless there are utils which may be interpersonally compared.

We have seen no reason to suppose that there is anything on

the market deserving of the appellation, "monopoly." The revenue and cost curve argument, and the geometry upon which it is based, has been found wanting. Nevertheless, we must now leave the realm of high neoclassical theory for the moment, and turn to the practical question of how to determine whether "monopoly" power exists in certain specific circumstances. That is, we now assume, just for the sake of argument, that Posner's analysis of the economics of monopoly was correct, and our own critique either non-existent or fallacious.

The basic answer given to this practical question is elasticities. To put this in biblical terminology, by their elasticities shall thee be able to distinguish the "monopolistic" sheep from the competitive goats. In particular, cross elasticities of demand tell all. They indicate how competitive is one good with another. Thanks to them, we can give a non-arbitrary definition to the extent of an industry, without which concentration ratios, market shares, "monopoly" "power"—and all the other accouterments of modern antitrust philosophy—would all become unintelligible.

There are several problems with this tidy scenario. For one thing, elasticities are slippery characters. It is by no means clear which of the many alternative definitions is reasonable. Once again we are aided in our quest to undermine Posnerian economics by Posner himself, who instructs us as follows: Just as in the case of "the calculation of variable cost and therefore of marginal cost," elasticities, too, are "highly sensitive to the time period" (p. 287). In the very short run, elasticities are small and hence "monopoly" is easy to perceive. As the length of the run under consideration increases, however, so does the elasticity, and with it the likelihood of finding "competitive" markets.

So which should be used? There are problems for the Posner thesis either way. In the long run then, elasticities are high, and the finding of "monopoly" unlikely. If our interests are confined to the short run, a determination of "monopoly" is attained more easily, but at the cost of relevance. That is, "monopoly" is only a short run or temporary problem. Posner admits as much, in the context of yet another discussion, this one not on "monopoly" but rather "monopsony." In his view,

> monopsony is a problem only where an input consumes resources that would be less valuable in other uses. Normally this condition is fulfilled only in the short run. (p. 292)

> And again, "monopsony pricing would have only short run effectiveness." (p. 293)

We must conclude, then, that either "monopoly" is non-existent, or it presents no serious problem, hardly a ringing endorsement for antitrust policy.

There is yet another criticism of elasticity criterion. It arises even if we could somehow overcome the intractable difficulty of length of run: this measure does not have the attributes of a constant in the physical sciences, such as gravity. Rather, elasticity is merely a shorthand numerical summation of an act which took place in a specific geographical locale and at a certain point in history. In other words, we are never entitled to say that the cross-elasticity of y with regard to x is 4.7. At best, we can only say something along the lines[20] of "In Cleveland, in 1991, the cross elasticity of y with respect to x was 4.7." In Posner's view, we should fine people, and perhaps haul them off to jail,[21] on the strength of a statistic, measurement of which has all the likelihood of success as in nailing jello to a tree.

There is also the problem of a "chilling effect" concerning the victims of the anti-"monopoly" law. These businessmen, who have been more successful in attracting customers than deemed appropriate by the Posnerites, will tend to have diminished enthusiasm for a whole host of economically productive practices.[22] Lowering prices, improving product quality, more reliable delivery, better insurance, etc., will all tend to increase consumer satisfaction. But they will also invite the negative attention of the trust busters.

There is also the possibility of mistakes, ordinary human error, either in defining the markets, or calculating the elasticities, or in interpreting them. Again, Posner himself leads the way in pointing out the risks:

> As one might expect, errors are frequent in attempting to define the market for antitrust purposes. A good example is the celebrated cellophane monopolization case, in which the Supreme Court held that cellophane was not a relevant market because there was a high cross elasticity of demand between cellophane and other flexible packaging materials. (p. 281)
>
> The courts have often mishandled economic evidence in antitrust cases. For example, in the U.S. Steel monopoly case, the Supreme Court, in ruling

> for the defendant, was impressed by the fact that U.S. Steel's market share had declined steadily after the combination of competing steel manufacturers to form the corporation (and that its competitors had not complained about its competitive tactics). The Court failed to recognize monopoly behavior. (p. 270)

One would think that this would give him pause for thought. If we couldn't rely upon the courts "to do the right thing" in this case, from whence springs the optimism that they will do so in future? And yet, the bottom line for Posner is that upon this foundation of sand it is reasonable, it is responsible, to erect a policy affecting virtually the entire economy of the country. Elsewhere, Posner launches a devastating critique of:

> direct regulation—which itself may be radically imperfect. For one thing, it tends to be more costly than common law regulation, because it is continuous; the common law machinery is invoked only if someone actually is hurt. . . . For another thing, direct regulation tends to be more politicized than common law, because it relies more heavily on the public sector and because judges, although public officials, are more protected from political reward and retribution than administrators are. . . . A related point is that regulation involves serious information problems. If accident victims have nothing to gain from bringing an unsafe condition to the government's attention, the regulators may have difficulty finding out what exactly the problem is. (p. 345)

But why doesn't Posner realize that antitrust too constitutes "direct regulation?"

As far as information costs are concerned, our author gives an additional reason for preferring "monopoly":

> An individual margarine producer may be reluctant to advertise the low cholesterol content of his product because his advertising will benefit his competitors, who have not helped defray its expense. (p. 349)

Yet another series of Posner's remarks—this time on the cost reducing proclivities of "monopoly"—undercuts his argument in behalf of antitrust:

> Sometimes monopoly will persist without any legal barriers to entry. Maybe the monopolist's costs are so much lower than those of any new entrant that the monopoly price is lower than the price that a new entrant would have to charge in order to cover his costs. (p. 262)
>
> The conditions of supply and demand in a market may be such that one firm can supply, at lower average cost than two or more firms, the entire output demanded; or one firm may have a superior management in whose hands the assets of all the other firms would be worth more than they now are. Either situation could lead to a monopoly through merger that might generate cost savings greater than the costs of the monopoly pricing that would result. *Unfortunately, it is exceedingly difficult to distinguish situations of this kind from the case of a merger to create a monopoly that involves few or no cost savings*. (p. 278; emphasis added)
>
> It is hard to base any conclusions on market share alone, even ignoring the substantial probability that if a firm has grown to a large size other than by recent . . . mergers, it probably is more efficient than its competitors, and its lower costs may outweigh the social costs resulting from its charging a monopoly price. Indeed, its monopoly price may be lower than the competitive price would be. (p. 283)

Further argument given by Posner to undermine his antitrust contention concerns potential competition:

> We know that the higher the elasticity of demand facing a firm, the less market power it has; and we also know that if an increase in price will evoke new output from other firms, i.e., if the elasticity of supply is positive, then the firm's elasticity of demand will be higher than it would otherwise be. This suggests, however, that there is no need for a separate doctrine of "potential" competition. All

> that is necessary is to define markets broadly enough so that they include firms that, although they do not currently sell in the market in question, would do so if price rose slightly. (p. 284)

But no sooner does he call for a way of incorporating potential competition into the antitrust analysis, on the very same page, he offers a succinct and well chosen criticism of it:

> since collusion is largely a short run phenomenon, . . . maybe the elimination of such (new entry) threats is not important enough to warrant antitrust concern, especially since it will be difficult to compute market shares for firms that do not yet have any productive capacity. Indeed, it will be quite difficult to identify which firms are likely to build productive capacity to enter the market if the market price rises above the competitive level. (p. 284)

In summary, let us be clear on what is being said here. We do not claim that these quotes from Posner contradict his case in behalf of antitrust. In his own mind, whether antitrust is justified or not depends upon a "balancing" of the grounds for and against; his conclusion is that the former outweigh the latter. The point being made here is that the support he gives for the case against antitrust is so strong, and in its behalf so weak, that despite his own explicit conclusion, the burden of his analysis vitiates this law.

There are two discernible hypotheses concerning antitrust which may be found in the *Economic Analysis of Law*. First, the neoclassical one given by Posner in those sections of his book dealing with the subject: the market is inefficient, veering off to "monopoly," in all too many cases. The function, purpose, motive, and result of antitrust is to negate this market failure, thereby increasing wealth, efficiency and economic welfare.

Despite the overwhelming popularity of the foregoing thesis in the journal and especially textbook literature, there is actually a second perspective which has some currency within the profession, that of rent seeking.[23] This alternative, in the tradition of the public choice school, tends to be somewhat underplayed by Posner, at least in those sections of his book dealing with "monopoly." It would be unfair to claim, however, that he is unaware of it. Consider the following:

> The deficiencies of public utility regulation viewed as a method of regulating profits, the degree to which it seems deliberately to maintain inefficient rate structures, and the frequency with which it has been imposed in naturally competitive industries and also used to discourage competition in industries that have some, but not pervasive, natural monopoly characteristics (railroads, for example) may lead one to wonder whether the actual purpose of public utility regulation is to respond to the economist's concern about the inefficient consequences of unregulated natural monopolies. Maybe instead regulation is a product, much like other products except supplied by the government, that is demanded by and supplied to effective political groups. Under this view there is no presumption that regulation is always designed to protect the general consumer interest in the efficient supply of regulated services. (p. 339)

No, the problem with Posner is not that he is unaware of the public choice thesis; it is, rather, that he chooses not to apply it to antitrust policy. As we have seen, he has waxed eloquent about the court's many shortcomings in this regard (e.g., U.S. Steel, cellophane, etc.). One would think, then, that he would apply the same public choice analysis to antitrust law in general, as he does to public utility regulation, one particular aspect of this legislation. Tragically, he does not.

Why not apply this insight not only to public utility regulation, where it is very apropos, but also to antitrust, where it is equally applicable? Indeed, there is an important literature which views anti-"monopoly" legislation, and the attendant law suits, as nothing but the despoilization of, or takings (Epstein 1985) from, private property owners (Kolko 1963).

Posner, instead of calling for the repeal of antitrust, recommends that cartel contracts not be enforced (p. 266). Actually, he goes further than that, characterizing this as an inadequate remedy, and advocates even more stringent controls. Nevertheless, he may have overlooked a better means to the end he favors. It is possible, that is, that strict enforcement will do more to undermine cartel agreements than non-enforcement.[24]

Consider the following. Suppose that the cartel fixes its price, through contract, at a level higher than "normal." This will

necessitate an agreement to cut back on quantity, according to some agreed upon formula. If this plan is enforced by law, all will be well for the cartel provided that no outsider comes in. (The cheating cartel member is now little or no problem because, we may suppose, there are very stiff penalties for such behavior written into the contract.) But if one does, and can bribe at least one of the members of the cartel to insist that its cutback provisions be adhered to,[25] all members of the cartel can be put into serious jeopardy of bankruptcy. For if newcomers enter, even without undercutting the price, the first instinct of the cartel will be to produce more, thus lowering prices, in order to meet the competition. But if they are prevented from doing so by one "Trojan Horse" member of the cartel, the new entrants may be able to sweep all before them.

But this scenario will be anticipated by all firms thinking of signing on with a cartel. It will put a serious crimp in all such arrangements. These organizations may still spring up, but an extra cost will clearly be imposed upon them. They will be disadvantaged by having to act so as to exclude the "Trojan Horse," or any member who can be converted into this status by being bought out.

Conclusion

We have discussed the works of three eminent, conservative, "free market" oriented economists. Certainly, they constitute a reasonable sample of this universe of discourse. We have found that however profoundly they defend market institutions in other contexts, they fail to do so in the case of antitrust. Why this lacunae should exist on the part of people otherwise concerned with economic freedom is for another day's analysis. But that this is so is the only conclusion that may be fairly drawn from the discussion above.

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[1] Bork's discussion of "allocative efficiency" depends intimately on the "benchmarks" provided by the purely competitive model. But the entire notion of "output restriction" depends logically upon some reference point: "restriction relative to *what*?" I owe this point to an anonymous referee.

[2] This applies, in spades, to the administrative commissions which do the lion's share of antitrust work, such as the Federal Trade Commission. At least there is some check and balance on the former; they are subject to recall, and great scrutiny in the process of their initial appointments. These controls are greatly attenuated, if not virtually nonexistent, in the case of the civil service. I owe this point to an anonymous referee.

[3] Bork also states: "Passably accurate measurement of the actual situation is not even a theoretical possibility; much less is there any hope of arriving at a correct estimate. . . . Nobody knows these curves. Even the companies involved do not. The clarity of the graphs . . . misleads many people" (p. 108). In short, Bork himself *knows* that the demand curves are *not* "out there." The real mystery is why Bork conveniently forgets his own excellent, and essentially Austrian criticism when he addresses himself to policy issues. (I owe this point to an anonymous referee.)

[4] The use of the “ring” in this context is rather pejorative; it is akin to describing the ancient and honorable profession of price fixing along the lines of a car theft “ring.”

[5] Subject to further objections to be made below.

[6] Rothbard (1962, p. 562) seems to have fully anticipated Bork when he talks of an economist who “hold(s) up ‘consumers’ sovereignty’ as an *ethical ideal against which the activities of the free market are to be judged*. Consumers’ sovereignty becomes almost an Absolute Good, and any action by producers to thwart this ideal is considered as little less than moral treason.”

[7] However, he does note that (p. 154) “These considerations do not demonstrate that price cutting could never under any circumstances be a successful method of predation.”

[8] However, according to the logic of the argument, it should still be prohibited. Failing attempts at murder (rape, robbery, etc.) are still properly illegal, even though they do not accomplish their goals.

[9] For a complementary critique of Bork which discusses dynamic and non-equilibrium considerations, see High (1984–1985).

[10] Price cutting is illegal because it can be part of a strategy aimed at monopolizing. Raising prices is illegal because it is a way of cutting back on production; it is monopolistic withholding, e.g., the move from P_1Q_1 to P_2Q_2. The third alternative, selling at the same price as everyone else can also be held against the law on the grounds of collusion. This highlights yet another intrinsic difficulty with antitrust no matter how circumscribed and limited in application: any law which prohibits all possible choices is not compatible with the rule of law (Hayek 1973). It is, rather, an aspect of totalitarian dictatorship—in this case, paradoxically to some, on the part of the democratic majority.

[11] Exceptions are Rothbard (1962), Armentano (1972; 1982; 1991), High (1984–1985), Block (1977).

[12] If we can ignore Posner’s “rarely,” which appears to be a rhetorical flourish. This we can safely do, since he vouchsafes us no example of a case where the choice *is* between a full free market and public regulation. Indeed, he denies this possibility outright.

[13] This word appears in quotation marks to indicate the present author’s view that real monopoly is always and ever part and parcel of government grants of special privileges. Fake monopoly, or neoclassical “monopoly,” in contradistinction, is

solely related to sellers facing downward sloping demand curves. See also Posner (1976).

[14] For a critique of patents, the restriction of entry typically defended by neoclassical economists, see Rothbard (1962, pp. 652–660).

[15] That is, that the allocation of resources deviates from perfection, or could have been improved were we smarter, or had more time, or were somehow guaranteed arrival at equilibrium.

[16] I owe the inclusion of this point to an anonymous referee.

[17] "Probably unknowable" is curious. Does Posner believe that one day, with advanced scientific techniques, we will discover the shape and height of these curves?

[18] Alternatively, we could interpret Posner's statement (p. 436) as a claim about interpersonal comparisons of utility, in that it is couched in the plural. If so, there is the great danger of an incompatibility in the two views.

[19] Human actions (Mises 1963) and their implications are the only reliable way of ascertaining truth in economics. Merely asking an economic actor to specify the next best alternative foregone as the price of making any given choice is hardly a guarantee of determining it. He could be lying.

[20] Posner (p. 281 n. 1) cites Eric A. Hanushek and John M. Quigley, "What is the Price Elasticity of Housing Demand?" *Review of Economics and Statistics* 449 (1980). A more accurate title for this article would have been "What *was* the Price Elasticity of Housing Demand?"

[21] Cf. the electrical case, where businessmen were actually incarcerated on the basis of this law; in the more ordinary case of treble damages, there is still the threat of a jail sentence if the fine is not, or cannot be paid.

[22] Given that businessmen know the elasticity-market share test to which they will be subjected, they will be able, to some degree at least, to act so as to alter these statistics. Surely, this is a misallocation of resources. Yet from the private perspective of businessmen, they will do so as long as the costs are less than the possible losses which result from fighting off antitrust law suits.

[23] This is a misnomer, and a very misleading one. Literally, apart from what landlords do, rent seeking applies to the seeking after economic rent, e.g., the difference between the price someone would have been willing to sell for (buy at) and

the price at which the deal was actually consummated. To be sure there are “rent seekers” in this sense, zillions of them, because all one has to do to be one is to be an entrepreneur. The real “rent seekers,” the ones who attempt to use government and regulatory means for their own ends (and, unfortunately, all too often succeed) would better and more accurately be categorized as booty seekers, or as thieves who work through the political process. Examples of such legalized theft include agricultural land reserves (theft from farmers), heritage preservation laws (theft from owners of hold homes), tariffs (theft from traders), minimum wages (theft from unskilled workers and potential employers), rent control laws (theft from landlords).

[24] Nothing stated herein should be taken to indicate agreement with this goal of reining in cartel agreements. From the perspective of the present author, these arrangements, as in the case of all other “capitalist acts between consenting adults” such as the trade of $1.00 for a newspaper, enrich the parties who take part in it, at least in the *ex ante* sense (why else would they agree to do so).

[25] We assume that if the members of a cartel unanimously wish to end it, no contract enforcement will deny them this right.

Ludwig von Mises's Monetary Theory in Light of Modern Monetary Thought

Joseph T. Salerno

Ludwig von Mises's contributions to the development of the technical methods and apparatus of monetary theory continue to be neglected today, despite the fact that Mises succeeded exactly eight decades ago, while barely out of his twenties, in a task that still admittedly defies the best efforts of the most eminent of modern monetary theorists, viz., integrating monetary and value theory. Such a unified and truly "general theory" is necessary to satisfactorily explain the functioning of the market economy, because the market economy, or any economy based on social cooperation under the division of labor, cannot exist without monetary exchange and calculation.[1]

Mises's work on monetary economics is not only ignored by the roiled mainstream of neo- and "new" Keynesians, monetarists, and new classicists, it is also considered *passé* by many Austrian-oriented economists and policy analysts, especially those whose primary influence is the post-World War II writings of Mises's former student F. A. Hayek. A typical example of this flippant and uncomprehending dismissal of Mises's monetary thought is provided by a review of *The Gold Standard: An Austrian Perspective*, which appeared in the publication of a free-market think tank (review of The Gold Standard 1986, pp. 14–15.) In commenting on this edited volume of mainly Misesian papers on the gold standard, the anonymous reviewer opined that "large parts of the book are unsatisfactory when considered as contributions to modern economic theory. Many of the essays have a strongly anachronistic flavor and do not succeed in integrating their arguments with the (often relevant) debates in modern monetary theory." *Mirabile dictu*, the reviewer then goes on to endorse as superior to the gold standard bizarre "laissez-faire" schemes such as the issuance of private fiat moneys and the separation of the unit of account from the medium of exchange, which have been resurrected under the rubric of the "New Monetary Economics" but which still emit the

unmistakable musk of their association with obscure and long-dead monetary cranks.[2] Had the reviewer enjoyed even passing familiarity with Mises's regression theorem, he would have instantly realized the untenability of these schemes.[3]

But the problem goes beyond Hayekian epigones laboring as policy analysts in think tanks. Prominent economists, too, in the wake of the collapse in rapid succession of the Keynesian and then monetarist paradigms, have been recently casting around for non-gold, "laissez-faire" alternatives to central bank manipulations of the money supply. There is, of course, Hayek's proposal for the issue of private fiat currencies; and recently Milton Friedman (1992, pp. 126–56) endorsed bimetallism as superior to a mono-metallic gold standard, while the plan coauthored by Yeager and Greenfield (1983) to dissolve the link between the monetary unit of account and the medium of exchange has recently been endorsed by another former monetarist, Richard Timberlake (1991), himself a former advocate of a parallel gold standard.[4] Even the supporters of a gold-based free-banking system, such as Lawrence White and George Selgin, who drew their initial inspiration from Mises, who himself advocated such a system because he believed it would severely restrain the issue of fiduciary media, now argue that such a system would give rise to an "invisible-hand" maturation process that eventually culminates in the complete and "spontaneous" withering away of the monetary gold base to yield a fiat bank money.

Unfortunately, all such schemes are based on a failure by their authors to perceive money as an outgrowth and driving force of "micro" market processes, a perception that can only be gained from Mises's monetary theory with its unification of real and monetary analysis. What is urgently needed then, and what I will attempt to supply in this paper, is a fresh evaluation of Mises's monetary theory and a clarification of its relationship to modern monetary thought. With this endeavor, I hope to demonstrate to Austrian-oriented and other economists that Misesian theory provides fresh and relevant answers to the seemingly intractable problems still confronting modern monetary economists.

In 1985, James Rolph Edwards (1985) published an insightful and stimulating work in which he attempted a doctrinal assessment of Mises's contributions to monetary theory. As I shall indicate in detail below, while Edwards shed important light on Mises's originality as a monetary theorist and brilliantly

defended him against some modern detractors, he failed in his main effort to portray Mises as the prototypical modern monetary economist, with an analytical tool kit that included an asset demand for money, the natural-rate hypothesis, the accelerationist view of lagged adjustment of nominal wages during inflation, a consistent modern monetary approach to the balance of payments and the exchange rate, rational expectations, etc. Nonetheless, Edwards's book does provide a useful framework, which I will employ for comparing Misesian with modern monetary theory. Specifically, I will use Edwards's topical development in organizing my own paper and employ some of his comments on Mises's theory as a point of departure for my own evaluation.

In the next section, "The Nature, Development, and Supply of Money," I address Mises's approach to defining money, classifying its different forms and components, and measuring the money supply. I also briefly discuss Mises's development of a consistent ordinalist approach to value theory as a foundation for his monetary theory. The following section, "The Regression Theorem and the Demand for Money," deals with Mises's formulation of a cash-balance demand for money, a supply-and-demand explanation of the determination of money's purchasing power, and his arguments in favor of the non-neutrality of money. It concludes with a consideration of Mises's regression theorem and its defense against criticism by Don Patinkin and others. In the concluding section "The Monetary Adjustment Process: The Inter-Spatial Equalization of the Value of Money, and the Determination of Exchange Rates," I focus on Mises's approach to the inter-spatial equalization of the purchasing power of a single money and the determination of the exchange rate between independent but co-existing moneys. In the case of the former, I significantly elaborate on Mises's view that the market's arbitrage processes rapidly re-establish monetary equilibrium after it has been disturbed, while demonstrating the importance to monetary analysis of Mises's methodological devices of the plain and final states of rest. I also draw attention to important methodological contributions by Philip Wicksteed and Arthur Marget which facilitate a better analytical grasp of the monetary adjustment process. In the discussion of exchange-rate determination, I carefully distinguish between the Misesian version of the purchasing-power-parity theory and the Casselian version adopted by modern economists, explaining why the former version is immune to many of the criticisms commonly

raised against the latter.

The Nature, Development, and Supply of Money

In chapter two, Edwards (1985, pp. 29–43) reviews Mises's Brobdingnagian, though unhappily neglected, efforts in preparing the conceptual groundwork necessary to a full statement of the theory of money. These include the development of a purely ordinal theory of subjective value and of marginal utility more than two decades before the celebrated "ordinalist revolution" of the 1930s, which ended up totally and erroneously expunging the very concept of marginal utility from economics. As Edwards (ibid., p. 34) points out, compared to the equilibrium condition yielded by the indifference curve analysis embraced by the later Anglo-American ordinalists, which assumes infinitely divisible goods, the equilibrium condition derived from Mises's approach is "more general and correct," because "real trade more often than not [I would say 'always'] involves discrete goods." Unfortunately, despite Mises's clear doctrinal priority in formulating a purely and consistently ordinal theory of value and in completely eliminating the notion of measurable utility from economics, "To this day the major historians of economic thought appear unaware of Mises's contributions here."[5]

As Edwards (1985, pp. 31–32) points out, Mises built on Carl Menger to develop a theory of the nature and origin of money. As the most generally saleable good in society or "the general medium of exchange," money emerges step by step from an evolutionary market process driven by the actions of individuals consciously striving to obtain the maximum benefit from their cooperation in exchange and the division of labor. All other functions of money, e.g., as a "store of value," "unit of account," "standard of deferred payments," etc., are and must remain subsidiary to money's primary function as a medium of exchange. As we will see below, Mises's regression theorem goes beyond Menger in demonstrating that, logically, money can only come into being as a product of voluntary catallactic processes.

Under the rubric of "Definitions and Components of the Money Stock," Edwards (ibid., pp. 36–38) draws attention to Mises's original and indispensable taxonomy of money, which yields a statistical definition of money that is consistent with the one employed by modern economists. Before Mises wrote, economists generally distinguished between bank notes and

token coins on the one hand and demand deposits or checking account balances on the other.[6] The former only were included along with specie in the category of money. Mises rejected this distinction as useless for the purposes of economic science. Mises's repudiation of the older classification accords with his staunchly Mengerian "essentialist" approach to economics, which finds expression in his dictum that "The greatest mistake that can be made in economic investigation is to fix attention on mere appearances, and to fail to perceive the fundamental difference between things whose externals alone are similar, or to discriminate between fundamentally similar things whose externals alone are different" (Mises [1953] 1971, p. 62).

In formulating a new and more useful classificatory framework, Mises draws a distinction between standard money—whether of the "commodity," "credit," or "fiat" variety—and "money substitutes," defined as perfectly secure and immediately convertible claims to money, such as bank notes and demand deposits, which substitute for money in individuals' cash balances. Within the class of money substitutes, Mises further distinguishes between "money certificates," or notes and deposits fully covered by reserves of the standard money, and "fiduciary media," which denote uncovered money substitutes. Mises employs the term "money in the narrow sense" to denote the aggregate stock of standard money in the economy, corresponding to what is today called "the monetary base." "Money in the broad sense" is Mises's term for the monetary aggregate equal to standard money plus money substitutes minus bank reserves or, alternatively, equal to standard money (including reserves) plus fiduciary media. This latter aggregate is roughly approximated by the current definition of M1.[7]

In noting the similarity between Mises's broader definition of money and modern M1, Edwards commits minor errors of commission and omission, but they are worth noting because they elucidate Mises's essentialist approach to theoretically defining money and identifying its empirical counterpart. Respecting the first error, Edwards (1985, p. 38) states that "in modern times, money consists of fiat currency, token coins, and *credit money* with fractional reserves." The error here is that checkable deposits, to which the words I emphasized clearly refer, are not considered by Mises to be credit money, but fiduciary media, a subclass of money substitutes. Credit money, on the other hand, as noted above, is one of the three categories of standard money, which also includes fiat and commodity

money. Mises ([1953] 1971, pp. 61–62) defines credit money as "a claim against any physical or legal person [which] must not be both payable on demand and absolutely secure. . . . Credit money . . . is a claim falling due in the future that is used as a general medium of exchange." Generally, credit money emerges when an issuer of fiduciary media suspends redemption of these media for a definite or indefinite period of time.

The essential economic distinction between the two resides in the fact that the value of a money substitute, considered as a perfectly secure and instantaneously redeemable claim to money, is completely dependent upon and always equal to the value of the sum of standard money to which it entitles its holder. In contrast, the value of credit money is established by an "independent process of valuation" (Mises ibid., p. 61). For example, Bank of England notes denominated in gold pounds were money substitutes during the periods of their unqualified convertibility prior to 1797 and after 1821, while they circulated as credit money for the duration of suspended specie payments from 1797 to 1821. As we would expect of credit money, during the latter period, the purchasing power of the paper pound fluctuated independently of the purchasing power of the quantity of gold which corresponded to its original definition. The fact that the prospects and timing of future redeemability influenced these fluctuations marked the currently inconvertible notes as credit rather than fiat money.

A proper understanding of the concept of credit money is important, because Mises seems inclined to classify most historical instances of non-commodity money as credit rather than fiat money. For example, in *Theory of Money and Credit*, which was translated from the second German edition published in 1924, after the German hyperinflation had run its course, Mises (ibid., p. 61) writes: "It can hardly be contested that fiat money in the strict sense of the word is theoretically conceivable. . . . Whether fiat money has ever actually existed is, of course, another question, and one that cannot off-hand be answered affirmatively. It can hardly be doubted that most of those kinds of money that are not commodity money must be classified as credit money. But only detailed historical investigation could clear this matter up." Even as late as 1966 in the third edition of *Human Action*, Mises (1966, p. 429) stops short of categorically affirming the historical existence of fiat money, declaring that "It is not the task of catallactics but of economic history to investigate whether there appeared in the past specimens of fiat

money or whether all sorts of money which were not commodity money were credit money."

The omission in Edwards's discussion—partly explained by his narrow focus on *Theory of Money and Credit*—involves a failure to recognize Mises's ambivalent attitude toward the inclusion of saving deposits in his broader definition of money. A strong case can and has been made for the view that saving deposits in the contemporary U. S. economy constitute "perfectly secure and immediately convertible claims to money" and, therefore, according to Mises's own criterion, are to be identified among the components of money in the broad sense.[8]

As early as 1924, Mises ([1953] 1971, p. 270) recognized that institutional developments had led banks "to undertake the obligation to pay out small sums of savings deposits at any time without notice." This circumstance, according to Mises (ibid., p. 270), induced some people, for example, "small business people and not very well-to-do private individuals," to utilize these deposits as "current accounts" notwithstanding their technical status as "investment deposits." Thus Mises implies that at least some portion of saving deposits function economically as money substitutes and warrant inclusion in his broad concept of money.

During the 1920s and into the 1930s, there was tremendous growth in the volume and economic significance of savings deposits both in the U. S., due to Federal Reserve policies, and throughout the world economy (Phillips, McManus, and Nelson [1937] 1972, pp. 29, 95–103; Rothbard 1975, pp. 92–940). In an important but neglected article written in the early thirties, Mises ([1933] 1990) places much of the blame for the financial and exchange-rate instability of the early 1930s on the pandemic treatment of savings deposits as money substitutes, a development actively sought and encouraged by the banks. As Mises (ibid., pp. 528–29) argues:

> The bank which receives [saving deposits] has to lend it to business. A withdrawal of the money entrusted to it by the saver can only take place in the same measure as the bank is able to get back the money it has lent. As the total amount of the saving deposits is working in the country's business, a total withdrawal is not possible. The individual saver can get back his money from the bank, but not all savers at the same time. . . . Since the saver does not need the deposited sum at call or short

> notice it is not necessary that the savings banks or the other banks which take over such deposits should promise repayment at call or at short notice. Nevertheless, this is what they did. And so they became exposed to the dangers of a panic. They would not have run this danger, if they had accepted the saving deposits only on condition that withdrawal must be notified some months ahead.

Mises also demonstrates that it was the egregiously inflationary and foredoomed attempt made by central banks to insure the instantaneous redeemability of saving deposits promised by the commercial banks, and not the spontaneous and generalized "capital flight" that is usually alleged, which was the root cause of the destructive exchange-rate gyrations of the 1930s. Writes Mises ([1933] 1990, pp. 108–9):

> Capital invested in real estate or industrial plants or in shares of companies holding property of this nature cannot fly. You can sell such property and leave the country with the proceeds. But—unless there is no expansion of credit—the buyer simply replaces you. . . . One person or another can withdraw his capital from a country, but this can never be a mass movement. There is only one apparent exception, *i.e.*, the saving deposit which can be withdrawn from the bank at once or at short notice. When the saving deposits are subject to instant withdrawal and the bank of issue renders the immediate withdrawal possible by advancing credits for these savings to be withdrawn, then credit expansion and inflation cause the exchange ratio to rise [the domestic currency to depreciate]. It is obvious that not the flight of capital but the credit expansion in favor of the savings banks is the root of the evil. . . . If the Central Bank were to leave [the banks] to their fate, their peculiar embarrassment would not have any effect on the foreign exchanges. That the additional issue of great amounts of bank notes for the sake of the repayment of the total amount or of a great portion of a country's saving deposits makes the foreign exchange go up is easy to understand. It is not simply the wish of the capitalists to fly with their

capital, but the expansion of the circulation, that imperils monetary stability.

Despite his brilliant and pathbreaking analysis of the causes and effects of the progressive transformation of saving deposits into de facto money substitutes, Mises was still unprepared in 1966, in the third edition of Human Action, to include these deposits in his broader definition of money. There Mises (1966, p. 460 n. 23) refers to them as "demand deposits not subject to check," but then inconsistently denies that they are money substitutes. Instead, he identifies saving deposits as foremost among "secondary media of exchange," a category encompassing highly marketable financial assets, such as government bonds and blue chip stocks, which permit their owners to economize on the holding of cash balances. Unlike money substitutes, secondary media of exchange "must first be exchanged against money or money substitutes if one wants to use them—in a roundabout way—for paying or for increasing cash holdings" (Mises 1966, p. 461). Uncharacteristically, Mises never addresses the momentous institutional fact, clearly recognized in his 1933 article, that, unlike stocks and bonds whose exchange values in terms of money fluctuate according to market forces, saving deposits are "exchanged" on a market in which their money "price" is virtually fixed (at par value) and guaranteed by the practically inexhaustible resources of the central bank.

The Regression Theorem and the Demand for Money

Murray N. Rothbard (1988, p. 179; 1977) has characterized the regression theorem as the "*pons asinorum*" for critics of Mises's monetary theory and as the "keystone of monetary theory" in general. And, as Edwards (1985, p. 49) points out, Mises himself "considered the integration of monetary and value theory by the application of marginal analysis to be the central problem, and his solution to be the most important contribution of [*The Theory of Money and Credit*]." In this spirit, Edwards (ibid., p. 24) refers to the third chapter of his own book, which comprises trenchant defenses against critics of Mises's regression theorem and approach to the demand for money, as "perhaps the heart of the study."

Against the allegation of Patinkin (1965, p. 79) and, later, Laurence S. Moss that Mises confused the marginal utility of

holding money with the marginal utility attaching to the goods for which it exchanges, Edwards (1985, p. 53) definitively demonstrates that the confusion is the critics' and that "The entire context of Mises's discussion unequivocally bears on the derivation of the individual and market demands for money to *hold* as *stock*." While Edwards (ibid., p. 65, n. 35) affirms that Patinkin and Moss are "respectful in their treatment of Mises's contributions," one would surely be hardpressed to identify a single instance in the history of economic thought in which an eminent economist's position was interpreted less sympathetically than in the present case, especially when one considers Patinkin's unsurpassed scholarship in the history of monetary theory.

Edwards also neatly disposes of the absurd charge by "real balance" theorists such as Howard S. Ellis (1934, p. 163) and Moss (1976, p. 32) that Mises conceives the demand for money as a demand for nominal units of money without regard to the purchasing power or exchange value of these units. As Edwards (1985, pp. 53–54) argues, "If a unit of money has a value, then the individual can, for an additional unit of money income, compare the marginal utilities of the additional present or future goods obtainable with that of adding that unit's worth of purchasing power to his/her cash balance, and it is precisely the magnitude of *real* balances that Mises is talking about determining by such a marginal calculation. The individual simply expresses that demand by demanding nominal units of money with a given purchasing power each."

Indeed we may go further than Edwards and turn the tables on those who insist that money demand analysis must proceed via a "real value calculus" and in terms of the utility of "resources held in the form of money." In his outstanding but unduly neglected tome on monetary theory, which includes an encyclopedic review of the development of the cash balance approach to the demand for money, Arthur W. Marget ([1938–42] 1966, 1, pp. 414–83) conducts a remarkable running defense of the Menger-Mises-Cannan "money balance" variant against the claims of the Walras-Pigou-Keynes "real balance" variant. First, Marget argues that the real balance approach is unrealistic, because it rests on the assumption that the holders of cash explicitly utilize an index number to "deflate" their money balances. According to Marget (ibid., p. 446 n. 88), "The real issue, so far as the question of realism is concerned, is whether the element of price change enters the 'calculations' of the cash-

balance administrator as a matter affecting 'his prospective receipts and payments in monetary units,' as Hawtrey [as well as Mises] holds, or whether it enters as part of a kind of 'deflation' process—in the statistical sense of 'deflation'—represented by the division of a cash balance by a price index. The question . . . is whether, from the standpoint of realism, it is helpful to think of cash-balance administrators as taking 'express account of any index number relating their cash to its equivalent in products.'"

Marget's second objection to the real balance approach stems from the fact that "demand for 'resources in the form of currency' which is held to determine the price level, needs, in order that a given amount of 'money' may be translated into 'real' terms, a 'price-level' which assigns to 'resources in the form of currency' a given 'real' value" (ibid., pp. 450–51 n. 99). Without dated price levels, *à la* Mises's regression theorem, however, exponents of this approach, which was developed as a means of escaping the so-called "Austrian circle," are themselves trapped in a logical circle. Finally, Marget (ibid., p. 451) contends that, in deflating money balances to their "real" equivalent in terms of products, many real balance theorists equate "the utility of a cash balance" to "the utility of the goods that might be purchased by the expenditure of the cash balance." The result is that these theorists are unable to explain why anyone should ever choose to hold cash instead of other forms of wealth, given that equal utilities generate indifference among alternatives.

Edwards successfully counters another criticism advanced both by Ellis (1934, p. 164) and Moss (1976, p. 32). The latter argue that Mises's theory of the demand for money yields a demand curve that is drawn as a rectangular hyperbola in nominal cash balance space. A demand curve of this shape, they note, is logically inconsistent with Mises's repeated and vigorous denials that an addition to the stock of money—even when this increment is distributed so as to equi-proportionally increase all individual cash balances—causes an equi-proportional increase of all prices. Edwards (1985, p. 55) thoroughly demolishes this criticism by demonstrating that it rests on a clearly erroneous interpretation of Mises's theory "as saying that the individual values units of money only with a view to maintaining a predecided and given level of purchasing power, and that utility calculation is not applied to the level of real balances. From this perspective they find his non-proportionality argument contradictory. It does not occur to them that his non-

proportionality argument is evidence *against* their interpretation of his theory of the demand for money."

Edwards (1985, p. 56) himself falls into error, however, when he charges Mises with "a failure to step from a non-rectangularly-hyperbolic demand for nominal balances to the rectangularly-hyperbolic market equilibrium curve." Edwards initiates his criticism by concurring with Mises that an equi-proportional addition to cash balances, let us say a doubling, will not lead *initially*, i.e., immediately prior to the first round of spending of the excess balances, to an inversely proportional variation or halving of marginal utilities of money on individual value scales. Thus, as Edwards recognizes, the overall elasticity of Mises's "instantaneous" demand curve for nominal balances, which is derived from instantaneously existing marginal utility schedules for goods and money, may properly take on (absolute) values less than, greater than, or equal to unity. Or, in other words, the instantaneous demand curve for money only fortuitously traces out a rectangular hyperbola.[9]

Edwards (ibid., p. 56) proceeds to argue, however, that Mises erred "in assuming that it followed that prices would not rise proportionately with M. This would occur because, as prices increased, real balances would decline, reversing all of the initial wealth effects, until equilibrium was attained at the initial level of real balances, *ceteris paribus*." Edwards is here contending, *à la* Patinkin, that, notwithstanding the non-unitary elasticity of the "instantaneous" demand curve for money, real balance effects generated by an increase of money will initiate a dynamic adjustment process that culminates in an equi-proportional increase in overall prices. But Patinkin's demonstration that an increase in money accomplished via an equi-proportional increase in everyone's cash balances brings forth an increase of all prices in the same proportion rests either on his arbitrary assumption of the constancy of the real data, i.e., relative prices and real wealth, during the transition from one Walrasian equilibrium position to the next, or on his equivalent simplifying assumption that "prices rise during the *tatonnement* in an equi-proportionate manner" (Patinkin 1965, p. 44).[10]

In contrast, the very time-embracing "step-by-step" method which Mises (1978a, p. 59) consistently applies in analyzing monetary phenomena leads inevitably to a denial that the real data of the system could, under any conceivable initial set of circumstances, remain unaltered during a disequilibrium adjustment or *tatonnement* process. For Mises (1966, p. 414),

"The process is always uneven and by steps, disproportionate and asymmetrical." In fact, Mises ([1953] 1971, pp. 141–42) rigorously demonstrates the long-run nonneutrality of money even under the most stringent and highly unrealistic assumption that new money is injected into the economic system in a way that does not disturb the pre-existing relative distribution among individuals of total wealth.

Writing in *Human Action*, Mises (1966, pp. 412–13) concludes that

> Changes in the supply of money must necessarily alter the disposition of vendible goods as owned by various individuals and firms. . . . We may, if we like, assume that every member gets a share of the additional money right at the moment of its inflow into the system, or shares in the reduction of the quantity of money. But whether we assume this or not, the final result of our demonstration will remain the same. This result will be that changes in the structure of prices brought about by changes in the supply of money available in the economic system never affect the prices of the various commodities and services to the same extent and at the same time.
>
> The main fault of the old quantity theory as well as the mathematical economists' equation of exchange is that they have ignored this fundamental issue. *Changes in the supply of money must bring about changes in other data too*. The market system before and after the inflow or outflow of a quantity of money is not merely changed in that cash holdings of the individuals and prices have increased or decreased. There have been affected also changes in the reciprocal exchange ratios between the various commodities and services which, if one wants to resort to metaphors, are more adequately described by the image of price revolution than by the misleading figure of an elevation or a sinking of a "price level." (Emphasis added)

Thus for Mises, "real balance effects" are inextricably bound together with "distribution effects." The very process by which the market adjusts the (positive or negative) excess demands for money of individuals necessarily "revolutionizes" wealth

positions and the price structure. And this is the case even if these (nonzero) individual excess demands sum to zero in the aggregate. Writes Mises (1966, pp. 417–18):

> Every change in the money relation alters—apart from the effects on deferred payments—the conditions of the individual members of society. Some become richer, some poorer. It may happen that the effects of a change in the demand for or supply of money encounter the effects of opposite changes occurring by and large at the same time and to the same extent; it may happen that the resultant of the two opposite movements is such that no conspicuous changes in the price structure emerge. But even then the effects on the conditions of the various individuals are not absent. Each change in the money relation takes its own course and produces its own particular effects. If an inflationary movement and a deflationary one occur at the same time or if an inflation is temporally followed by a deflation in such a way that prices finally are not very much changed the social consequences of each of the two movements do not cancel each other. To the social consequences of an inflation those of a deflation are added. There is no reason to assume that all or even most of those favored by one movement will be hurt by the second one, or vice versa.

Edwards (1985, p. 56) also argues that Mises's "nonproportionality argument" contradicts Mises's own no less vigorously stated position that an increase in the aggregate money stock would leave human welfare unchanged, because "a change in M would result in a proportional change in P." Edwards here implies that Mises derives his proposition that money always yields to society its full utility as a medium of exchange from a "process" analysis of the effects of a change in the quantity of money on a given economic system. For Mises, however, the proposition regarding the welfare effects of additions to the money stock is derived from a purely "comparative static" analysis of two simultaneously existing but unconnected economic systems which are based on identical real data and differ only in the magnitudes of their nominal money stocks. While the discussion by Mises which Edwards cites to

support his interpretation is admittedly ambiguous on this point (Mises [1953] 1971, p. 85), elsewhere in the same work Mises (ibid., pp. 142, 145) draws a clearcut distinction between the two forms of analysis:

> the level of the total stock of money and of the value of the money unit are matters of complete indifference as far as the utility obtained from the use of the money is concerned. Society is always in enjoyment of the maximum utility obtainable from the use of money. Half of the money at the disposal of the community would yield the same utility as the whole stock, even if the variation in the value of the monetary unit was not proportioned to the variation in the stock of money. But it is important to note that it by no means follows from this that doubling the quantity of money means halving the objective exchange-value of money. . . .
>
> If we compare two static economic systems, which differ in no way from one another except that in one there is twice as much money as in the other, it appears that the purchasing power of the monetary unit in the one system must be equal to half that of the monetary unit in the other. Nevertheless, we may not conclude from this that a doubling of the quantity of money must lead to a halving of the purchasing power of the monetary unit; for every variation in the quantity of money introduces a dynamic factor into the static economic system. The new position of static equilibrium that is established when the effects of the fluctuations thus set in motion are completed cannot be the same as that which existed before the introduction of the additional quantity of money.

In the course of rebutting Moss's astounding contention that Mises "saw the demand for real balances as constant and given by the state of the world . . . [and] did not apply subjective cost and benefit considerations to the demand for real balances," Edwards (1985, p. 57) himself seriously misconstrues Mises's position on the relationship between the demand for money and the interest rate. Edwards correctly characterizes Mises's overall approach to the problem as "the classic one of long-run interest rate neutrality, based on a view that the rate of interest and the

demand for money had essentially different determinants."[11] This, Edwards (ibid., p. 57) implies, accounts for the fact that Mises "did not generally regard interest foregone as the cost of holding money." This is incorrect on both exegetical and logical grounds.

First of all, Mises identified three basic categories of opportunity costs which may be incurred in the decision to hold cash balances. These include "interest foregone" as well as the foregoing of "instantaneous consumption" and of "plain saving" i.e., the accumulation of stocks of durable consumers goods.[12] That the foregoing of an interest return is one of the potential "costs" of holding money is logically implied in the very application of marginal utility theory to the explanation of the purchasing power of money. In this approach, the opportunity cost of allocating a sum of money to cash balance is the renunciation of the marginal utility of the most highly valued alternative use of this money, which may or may not be the investment of the sum in interest-bearing securities. The assertion by Edwards (1985, p. 57) to the contrary, this is readily deducible from Mises's analysis in *Theory of Money and Credit* of the manner in which individuals adjust to a disequilibrating influx of newly-created money into their cash balances. Writes Mises ([1953] 1971, pp. 139, 134–35):

> For these persons, the ratio between the demand for money and the stock of it is altered; they have a relative superfluity of money and a relative shortage of other economic goods. The immediate consequence of both circumstances is that the marginal utility to them of the monetary unit diminishes. This necessarily influences their behavior in the market. . . . He who has more money on hand than he thinks he needs, will buy, in order to dispose of the superfluous stock of money that lies useless on his hands. If he is an entrepreneur, he will possibly enlarge his business. If this use of the money is not open to him, he may purchase interest-bearing securities; or possibly he may decide to purchase consumption goods.

If we assume that one of the individuals in Mises's example does in fact allocate his increment of new money to the purchase of interest-bearing securities—assuming that his value rankings of the utilities derived from the various uses of the money have

remained constant—it is to be inferred from this purchase that the foregone interest on these securities constituted the opportunity cost of holding an equal-sized unit of money *prior* to the infusion of new money into his cash balance.

Mises (1966, p. 430) is even more explicit on this point in *Human Action*, where he states that:

> The keeping of cash holding requires sacrifices. To the extent that a man keeps money in his pockets or in his balance with a bank, he forsakes the instantaneous acquisition of goods he could consume or employ for production. In the market economy these sacrifices can be precisely determined by calculation. They are equal to the amount of originary [or pure] interest he would have earned by investing the sum. The fact that a man takes this falling off into account is proof that he prefers the advantages of cash holding to the loss in interest yield.[13]

Not only does Mises conceive the interest rate as a potential cost of holding money, he also recognizes that it is a monetary phenomenon in a real and important sense. That is, in a barter economy, where monetary calculation does not exist, it would be impossible to even conceive the difference in value between present and future goods as a unitary rate. The reason, as Mises (1990b, p. 65) points out, is that "Only within a money economy can this value difference be comprehended in the abstract and separated from changes in the valuation of individual concrete economic goods. In a barter economy, the phenomenon of interest could never be isolated from the evaluation of future price movements of individual goods."

Of course, recognizing that the interest rate is an outgrowth of monetary exchange and calculation expressible only in monetary terms and that, as an element determined within the system of interdependent money prices, it functions as an opportunity cost of holding money does not imply that "real balances [are] a function of wealth and the interest rate." That Edwards does not fully comprehend this point is attributable to his failure to appreciate that Mises's methodological approach is worlds apart from the neoclassical methodology of mutual determination that Edwards himself apparently espouses. The analytical framework of Mises's monetary theory is the general interrelationships and interdependencies of the system of market

prices. Within this framework, there are multifarious opportunities for money expenditures on consumer goods which, in addition to the opportunity to hold ready cash, compete with opportunities to invest money at interest. Thus it might be argued that a fall in the interest rate, *ceteris paribus*, lowers a given individual's cost of currently consuming, let us say, apples. But it is an impermissible leap of logic from this formally unexceptionable statement to the conclusion that the interest rate is one of the functional determinants of the demand for apples.

Edwards does make an important contribution, however, in his defense of Mises's regression theorem against Patinkin and his demolition of the latter's alternative "Walrasian solution" to the circularity problem in monetary analysis. Employing the methodology of simultaneous mutual determinism, Patinkin is able to formally demonstrate that no specific prior value of money need be assumed in deriving a market demand schedule or "excess demand function" for money. Moreover, Patinkin's demonstration implies that if economic agents form their subjective valuations of cash balances on day two with reference to the unique purchasing power of money prevailing on day one, as Mises assumes, the outcome is not a schedule of quantities demanded of money at varying purchasing powers but a single quantity demanded. Thus Patinkin (1965, pp. 115–16) concludes that writers such as Mises who believe that there is a circularity problem to be addressed in explaining the determination of the purchasing power of money fall victim to a "basic misunderstanding of the theory of price determination" and to an elementary "confusion of 'demand' with 'amount demanded.'"

In defending Mises, Edwards argues that, before Patinkin's "individual-experiment" can proceed, i.e., before each individual can establish his indifference map for goods and (nominal) money balances, money itself must have utility and therefore a known and pre-existing purchasing power, because the very existence of indifference curves implies that the individual is able to maintain a given level of utility by substituting at the margin determinate quantities of goods for determinate quantities of money. Edwards's insightful argument on this point is worth quoting at length (Edwards 1985, pp. 59–60):

> note that [Patinkin's] method of generating a demand curve for money assumes the indifference curves to exist and have the normal properties. Yet,

> translating into modern terms, the whole essence of the problem, as recognized by all parties to the [circularity] debate at the time, was precisely that without some specific value of money *no* such indifference curves could even *exist*. Consider: we have goods on one axis, with a given intercept (the endowment), and money on the other. But money is only money when it is a medium of exchange, that is, when it has a value (purchasing power) in terms of other goods. Then it can be valued for storage purposes and the utility curves can exist.
>
> We might place pieces of paper with a number on them on the axis, but if they have no nonmonetary utility and no purchasing power they would have no utility. The indifference curves can only exist when we place a budget line on the graph, that is, postulate a goods price of money, and that is precisely Mises's point. . . . Mises would argue that since the indifference curves cannot exist until the budget line does, the latter is logically prior. His interpretation of such a graph would be that the budget used is yesterday's exchange value of money, while the indifference curves embody today's subjective valuations of money.

Presumably, Patinkin would counter this critique by arguing that the temporal and causal approach to explaining the demand for money followed by Mises—referring as it does to a particular value of money—would be incapable of generating more than a single point on a demand curve in nominal money space. Edwards's reply to this objection, although it points us in the right direction, is not completely satisfactory. Thus he argues, somewhat tentatively, that the Patinkinite charge "is not quite correct," because, while the formation of individuals' subjective valuations for money with reference to "some *particular* prior value of money" yields only a single quantity demanded, "there is an infinite number of such possible prior values, and if their tangencies with individual's [sic] existing indifference curves were plotted, demand functions of the normal shapes would result" (Edwards 1985, p. 66 n. 47).

But the point that Edwards should have made is that market participants, in deciding upon the size of their cash balances, are interested in the future purchasing power of money. In

attempting to forecast the future structure of prices, which is the inverse of the purchasing power of money, they resort to the prices of the immediate past, let us say, yesterday. They do not mechanically project the realized prices of yesterday into the future, but use them as the basis for appraising the structure of prices which will emerge and prevail today as a result of the anticipated changes intervening in yesterday's constellation of the qualitative economic data.

Based on their appraisements of money's prospective purchasing power and their anticipated uses for a general medium of exchange today, market participants rank units of money on their subjective value scales and thus establish the marginal utilities that underlie today's market demand for money. For each individual, the marginal utility of money will decline as successive units of a given purchasing power are added to his cash balance. Consequently, an increase in the total stock of money, ceteris paribus, will lead to a decline in individual marginal utilities of money and this will translate into a rightward shift in demand curves in goods markets and higher money prices offered and paid, i.e., a decline in the purchasing power of money. In other words, the instantaneous demand curve for money that emerges from Mises's analysis is multi-valued and negatively-sloped and interacts with the vertical line representing the current stock of money to determine today's purchasing power of money.

Contrary to Patinkin's assertion, then, in Mises's analysis, the demand for money is not logically constrained to a single quantity dependent on a specific realized purchasing power, but describes a schedule of quantities that responds inversely to variations in the current purchasing power of money. To illustrate this, if we assume that the total quantity of money that market participants desire to acquire and hold, based on their forecasts of the future purchasing power of money, is insufficient to completely absorb the current stock of money, then there will result a temporal process involving variations in total money expenditures on goods and services, i.e., "real balance effects," that drive the price structure and therefore the purchasing power of money to the level at which the stock of and demand for money are equated. Abstracting from distribution effects, the inverse response of the amount of money demanded to the alterations in its purchasing power, which occurs during this adjustment process, will trace out a segment of the instantaneous demand curve.

Summing up the differences between the Misesian and Patinkinite methods for solving the circularity problem, Edwards (1985, p. 60) sees a distinct advantage in the Misesian method, because it allows for the possibility of disequilibrium occurring between the actual and desired stock of cash balances and the operation of an adjustment process that eventually restores equilibrium. In contrast, the Walrasian solution offered by Patinkin effectively precludes the emergence of monetary disequilibrium and a dynamic adjustment process. As Edwards (ibid., p. 61) argues: "Where demand and excess demand functions are derived using given preferences and hypothetical alternative values of money, and the value of money determined by the market demand and supply functions determines the actual quantities demanded simultaneously, the individual is always at equilibrium. . . . The solution to a simultaneous equation set *never* yields anything but equilibrium values."

The Monetary Adjustment Process: The Interspatial Equalization of the Value of Money, and the Determination of Exchange Rates

In chapter four, Edwards (1985, p. 69) examines Mises's contributions to international monetary theory, and, in the process, goes a long way towards establishing that Mises anticipated "every major element of the modern monetary approach to international adjustment (MAIA)." Indeed, Edwards (ibid., p. 133) argues that "This is true to such an extent that Mises might justly be designated the founding father of the MAIA in the twentieth century."

The central proposition of the modern monetary approach is that "the balance of payments and currency exchange rate changes are essentially monetary phenomena equilibrating the stock demands for and supplies of national currencies" (ibid., pp. 69–70). Proponents of this approach have traced the roots of the MAIA back to the writings of classical monetary theorists including David Hume and British "bullionist" pamphleteers John Wheatley and David Ricardo. Edwards argues, however, that in their eagerness to identify and credit the classical forebears of the monetary approach, doctrinal historians have given a partly distorted account of its development, which completely overlooks Mises's unquestioned precedence in formulating important elements of the uniquely "modern" version.

As Edwards (ibid., pp. 77–78) points out, before Mises, proponents of the monetary-oriented classical and neoclassical approaches to balance-of-payments adjustment, including prominent cash-balance theorists such as Alfred Marshall and Knut Wicksell, explained the international distribution of the money commodity using a macro "expenditure flow" concept of the demand for money. According to this conception, each nation's equilibrium share in a given global stock of money is determined, given the payments habits of its population, by the relative volume of business it transacts at the exogenously given level of world prices. Or, in terms of the Fisherian Equation of Exchange, a nation's demand for money is conceived as a demand for a flow of money payments (M x V) needed to support an aggregate expenditure flow (P x T).

Mises, in contrast, builds up his explanation of the distribution of the stock of money among nations from the Mengerian (and modern) conception of the individual's demand to hold a *stock* of the general medium of exchange. For Mises, individuals' subjective value rankings of money and goods hold the ultimate explanation for the allocation of the global stock of money among individual cash holders and thus among nations, obviating any reference to disembodied averages and aggregates such as a nation's velocity of circulation of money or total volume of business transactions. Thus in Mises's view, as in the modern MAIA, "international monetary *flows* (that is, deficits and surpluses in the balance of payments) act to equilibrate the stock demands and supplies of money" and, therefore, assuming a fixed global monetary stock, "only changes in the *demands* for money (resulting in net excess demand, positive or negative) can produce a surplus or deficit" (Edwards 1985, p. 77). Conversely, "If the state of the balance of payments were such that international movements of money were required *independent of any altered estimation of money on the part of those involved* (that is, in the absence of change in the stock demands), operations would be induced to restore equilibrium" (ibid., p. 76).

Unfortunately, in his own eagerness to establish Mises's rightful and preeminent position in the MAIA tradition, Edwards glosses over several significant differences between the Misesian and the rational expectations-based modern approaches. These differences are important enough to warrant critical comment.

Edwards (ibid., pp. 70–71, 73–74) points out that Mises, like the modern proponents of the monetary approach, holds that "the law of one price" applies to money as well as to

commodities. In other words, in the case of a single money, the purchasing power of the monetary unit tends to be geographically uniform. For adherents of the modern monetary approach, such as Laffer and Miles (1982, p. 232), this means that, assuming profit maximization and no barriers to trade, "All commodities' prices should be fully arbitraged in each and every numeraire at each and every moment in time." This concept of instantaneous arbitrage for an individual good then "can be extended to the overall price indexes of two countries by taking a weighted average of the prices of goods consumed in both countries" (ibid., p. 232).

But the rational expectationist conception of instantaneous arbitrage is inconsistent with the step-by-step method employed by Mises in his analysis of the monetary adjustment process. As Mises (1978a, p. 59) emphasizes, "The step-by-step analysis must consider the lapse of time." Moreover, Mises ([1953] 1971, pp. 187–94; 1966, pp. 219–23) criticizes and deliberately eschews the use of price indexes to measure changes in the purchasing power of money, except for rough historical estimates.[14] Therefore, when Mises ([1953] 1971, p. 176) states that "The purchasing power of money is the same everywhere," he is *not* referring to a tendency to equalization of national price indexes, as Edwards (1985, p. 77) seems to imply at one point. For Mises, interspatial equalization of the value of money refers to an equilibration of the vast and unaveraged array of alternative quantities of goods which are purchasable by a unit of money.

Furthermore, from Mises's perspective, equilibration of money's purchasing power array cannot necessarily be expected to yield equality between the prices of physically identical goods available in different locations, let alone between the arbitrarily selected and weighted price indexes of different nations or regions. The reason is to be found in Mises's pathbreaking subjectivist insight that the situation of a good in space may affect its perceived usefulness and thus its subjective value in satisfying human wants.[15]

Edwards (1985, p. 74) properly recognizes the implication of this insight for the case in which a "good has a subjective value as *consumption* good where it is, and a different one as *production* good in those places to which it may be transported." The good available at its place of production, for example, coffee-in-Brazil, is evaluated by coffee drinkers in New York City as a capital good which must be combined with further complementary capital goods, that is, the means of transportation, before it can

attain the (higher) subjective value of the consumption good, coffee-in-New York. As Edwards (ibid., p. 74) also notes, Mises distinguishes money from nonmonetary commodities in this respect, because, in the case of the former, the use of money substitutes and clearing systems operate to render its position in space indifferent to economic agents. For Mises, then, stocks of money, wherever they may be situated within the unitary market area, for all practical purposes, comprise a perfectly fungible commodity whose transference between market participants is virtually costless. Thus the Law of One Price fully applies to money, and Edwards (ibid.) concurs with Mises's conclusion that "the purchasing power of money is the same everywhere, only the commodities offered are not the same."

Edwards defends Mises against Ellis's criticism that Mises has only proved the international equalization of "utility flows per unit of purchasing power" rather than of the purchasing power of money itself (Ellis 1934, p. 224). However, Edwards's defense itself rests on a failure to comprehend the full scope of Mises's insight regarding the influence of the spatial element on the quality of (nonmonetary) goods. Thus, in response to Ellis's critique, Edwards (1985, p. 74) upholds Mises's proposition that the objective value of money tends to equality and supports this position with the following example: "Consider a good sold in any number of locations in different directions from the factory, and at distances and elevations such that their transportation costs are the same. On Mises's assumptions it is clear that though such physically identical goods are at different locations they are *economically* the same and their prices would not differ in equilibrium."

Edwards's conclusion is not fully consistent with Mises's conception of the spatial quality of goods, because this conception does not merely embrace the pure distance between the location of the consumer and the location of the good, but also the consumer's positive or negative psychic response to the very location of purchase or consumption. For example, the same brand of men's shirt may simultaneously sell for a significantly higher price at a mall boutique than at a downtown clothing store, because, at the margin, consumers are prepared to offer a higher price for the good purchasable at the more accessible and pleasant location. Or consider that alcoholic beverages consumed in a restaurant situated atop one of the towers of the World Trade Center, which offers a breathtaking view of Manhattan and its surroundings, command much higher prices than drinks

mixed with the same ingredients and imbibed in a street-level pub located a few blocks away. Surely, we do not expect would-be bar patrons at the World Trade Center to react to knowledge of such price discrepancies by a mad scramble to the elevators in order to take advantage of the higher purchasing power of money at ground level. This is not to deny, of course, that whenever consumers are neutral between stocks of a technologically identical good ready for consumption or purchase at two different locations, the spatial equilibration of the purchasing power of money will imply the complete eradication of inter-local price differences.

The proper response to Ellis's critique is to point out that, for Mises, the equilibration of the purchasing power of money is accomplished within the same process that gives rise to the structure of relative prices. This process culminates in a state in which, barring further change in the data, mutual gains from further exchange between any two market participants are impossible, because the ordinal value rankings of equal units of the various goods and money are identical for all those possessing them. This state also reflects the *absolute* equalization of the objective exchange value of money between any two locations, because it implies both that inter-local differences between prices of technologically identical goods do not exceed their costs of transportation (abstracting from time in transit) between their consumption and production centers, and, more generally, that no individual can achieve a more desirable outcome from the exchange process by diminishing his expenditures on goods available at one location and substituting expenditures on goods, whether physically indistinguishable or not, offered at alternative locations. Thus, contrary to Ellis, interspatial equalization of the *objective* value of money can only exist when there also exists common *utility* rankings for goods and money on the individual value scales of all market participants or, less accurately, when "utility flows per unit of purchasing power" are equalized.

It is instructive to analyze in more detail the market adjustment process which produces the tendency to the interspatial equilibration of the purchasing power of money, because it elucidates the reasons for Mises's insistence, as against Wieser, that such a tendency strongly and rapidly reasserts itself amid the ceaseless fluctuations of the underlying economic data (Mises [1953] 1971, pp. 173–75). Or, more loosely speaking, it explains why monetary equilibrium is much more quickly

established than the final equilibrium position of the real sector of the economy. This analysis also permits us to answer the question of whether the occasional unqualified statements by Mises (ibid., pp. 201, 210) to the effect that "the purchasing power of money is the same everywhere" are intended as merely polemical flourishes or represent what Mises believed to be a close approximation to the actual moment-to-moment situation in the economy, as when we speak of "the" market price for wheat or for oil.

Mises's analysis of the market process is predicated on the indisputable premise that the process has an unavoidable spatial, as well as temporal, dimension, because the individual sellers and buyers whose actions constitute it are spatially diffuse and possess different capacities for forecasting, learning of, and adapting to the ceaseless change that characterizes human life (Mises 1966, p. 328). At each moment in time, the unitary market process produces a structure of money prices which is determined by consumer valuations (including, of leisure and of present versus future goods) and entrepreneurial price appraisements interacting with the currently existing total stocks of goods of various orders. The exchanges which take place as a result of these subjective valuations and appraisements produce a situation in which no individual perceives that he can improve his situation by further exchange at prevailing prices, because the marginal utility of any good he might offer exceeds the marginal utility of the good he will receive in exchange. On every market in the economy, therefore, the situation is the same as it is at the close of Böhm-Bawerk's famed horse market (Böhm-Bawerk 1959, pp. 217–30). This "momentary equilibrium," as Böhm-Bawerk (ibid., p. 231) refers to it, or "plain state of rest" (PSR), as it is designated by Mises (1966, p. 244), will persist only so long as the prevailing state of valuations of the marginal pairs in each market remain constant. But these valuations are bound to change precisely because, in many cases, they are formulated on the basis of inaccurate forecasts and incomplete information regarding market opportunities. The result is that the actual market prices which we observe are always in disequilibrium in two related but logically distinct senses. First, the array of realized prices embodies inter-local discrepancies in the exchange value of goods and money, which present the opportunity for arbitrage profits, whether in terms of money or of enhanced consumer surplus.[16] Second, for many of the goods exchanged, the prices

that clear the market exceed or fall short of their respective monetary costs of production, including an interest return to time preference, thereby generating pure or entrepreneurial profits and losses.

In analyzing adjustment of the first type of disequilibrium, we must abstract from the inevitable changes in production decisions that will be initiated by capitalist-entrepreneurs consequent upon their experience of pure profits and losses. The analytical device which is ready made for our purpose is Wicksteed's country fruit market in which the stocks of the various (perishable) commodities as well as consumer valuations are fixed for the duration of the "market day," during the course of which buyers exercise their demands. This market is, moreover, assumed to be "imperfect" in two senses. First, buyers and sellers are spatially constrained and, hence, neither group is instantaneously and fully informed of current transaction prices at all locations or "stalls." And second, neither buyers nor sellers have perfect knowledge of what Wicksteed calls the "ideal market" or "equilibrating" price for any commodity, which, when once established, will not vary for the remainder of the market day.[17]

In the absence of these imperfections of knowledge about the current and future state of the market, the prices established for the first set of transactions of the market day would invariably result in a PSR characterized by spatial equality in the purchasing power of money: the same commodity would have the same price at different stalls and each and every buyer would allocate his income among the different commodities available at different locations so that, at prevailing prices, no alteration in his spatial pattern of expenditures would result in an increase in his "total utility" or the utility-ranking of the aggregate collection of goods he purchases. Until sellers' stocks are completely exhausted and the market comes to a close, this identical "Wicksteedian state of rest"[18] (WSR) will be repeatedly disrupted and then re-established as each new group of perfectly informed buyers arrive and undertake transactions at the prevailing equilibrium set of prices.

However, the inescapable spatial and temporal constraints on market participants would prevent the initial pricing process from culminating in a WSR. Aware of the deficiencies of their information and foresight, both buyers and sellers arrange the temporal pattern of their exchanges according to speculative anticipations of the course of actual market prices. Buyers

seeking psychic arbitrage profits devote time to comparison shopping and forego purchases offering a consumer surplus in one location while speculating on the availability at another location either of a higher-ranked good for an equal monetary expenditure or of the same good for a lower price. On their side, sellers may exercise a speculative reservation demand for their own commodities. Thus, the constellation of actual market prices that emerges at any moment early on in the market day will diverge from the equilibrating constellation as a result of ignorance and speculative errors. During the PSR which succeeds each set of transactions undertaken at "false" prices during the early going, market participants begin to discover spatial inequalities in the purchasing power of money and to exploit these opportunities for arbitrage profits. (For analytical convenience, we are assuming; as Wicksteed did, that trading at false prices does not alter the structure of market demand.) As their experience of the market grows during the course of the day, the continually revised transaction plans of buyers and sellers come to reflect more accurate and complete information and eventually give rise to the equilibrium set of prices. The lull or WSR which succeeds this latter set of transactions describes a situation in which the spatial divergences in the purchasing power of money have been completely eradicated and the prices of all goods fully arbitraged. For the rest of the market day, each successive set of transactions takes place at equilibrium prices and thus generates a momentary WSR until the arrival of the next group of buyers on the scene.

Wicksteed's analysis, with its assumptions of given consumer value scales and fixed stocks of goods and money, thus allows us to disentangle the complex phenomena of entrepreneurship and production from those of arbitrage. It also serves to emphasize that the determination of money's purchasing-power array is a pure exchange phenomenon: since everyone is a "dealer" in money and money is always "in inventory," a perfectly adequate explanation of the actual exchange ratio between money and goods may be made without reference to problems of production. In the same way, the Böhm-Bawerkian and Wicksteedian explanation of actual, moment-to-moment market prices of individual nonmonetary goods completely and correctly abstracts from production phenomena, due to the fact that the exchanges taking place at any moment in time are determined exclusively by the stocks of goods in existence and prevailing subjective valuations. As Böhm-Bawerk (1959, p. 229) has written: "I do

really believe we have here hit upon the simplest and most natural, and indeed the most productive manner of conceiving exchange and price. I refer to the pricing process as a resultant derived from all the valuations that are present in society. I do not advance this as a metaphorical analogy, but as living reality." And, as Mises (1966, p. 245) himself stresses, "The theorems implied in the notion of the plain state of rest are valid with regard to all transactions without exception. . . . The notion of the plain state of rest is not an imaginary construction but the adequate description of what happens again and again on every market."

Perhaps the most powerful defense of the analysis of momentary positions of rest and of their relevance for monetary analysis was presented by Marget. According to Marget ([1938–42] 1966, 2, pp. 222, 240):

> The ultimate goal of any theory of prices [theory of indirect exchange], like that of any part of economics which undertakes to explain economic reality, is to explain why *realized* prices are what they are. "Quoted prices," the prices which are included in the "*ex ante*" schedule of the general theory of value [theory of direct exchange], "expected" prices, "equilibrium" prices (in most of the senses of the concept of equilibrium), or any kind of prices other than *realized* prices are to be introduced into the argument only insofar as they help to explain why prices actually realized on the market are what they are. . . .
>
> In a fully developed monetary economy, a realized price represents the passage of money for an article sold for money. And the "passage of money for articles sold for money" is precisely what constitutes the subject matter of those aspects of the theory of money and prices which undertake to explain why the dimensions of the stream of money which "passes" for a given commodity or group of commodities is relatively large at one time and relatively small at another. . . .
>
> But it also constitutes the subject matter of that part of the "general" theory of value which is built upon the proposition that any realized price is what it is as a result of the conformation and position of

the market demand curve and market supply curve prevailing at the moment the price is realized.

Or, as Marget ([1938–42] 1966, 2, pp. 239–40) summarizes it, "the prices which we must ultimately explain are the prices 'realized' at specific moments in clock time [and] the only demand and supply schedules which are directly relevant to the determination of these 'realized' prices are market demand and supply schedules prevailing at the moment the prices are 'realized.'" The only sense in which Margetian "realized" prices may be characterized as "equilibrium" prices is in the sense of an "equality between demand price and supply price for a given quantity of a commodity *in all cases in which prices are actually realized in the market for this quantity of the commodity*" (ibid., p. 253).

With respect to the "market" demand curves, whose variations account for "changes in realized money prices," Marget (ibid., p. 176) conceives them as instantaneous curves, whose shape and position are influenced by forecasting errors and incomplete knowledge of arbitrage opportunities. Thus, each such curve represents "a set of 'plans' by prospective purchasers of a given commodity at the time that they reach the decision to purchase or refrain from purchasing that commodity at a given price. [And] the mere fact that these plans may themselves change between successive realized decisions to purchase or not to purchase does not alter the further fact that *the actual purchases themselves may he assumed to be based on calculations whose results are embodied in 'plans' the resultant of which is the decision to purchase a given amount if the price is at one level and another amount if the price is at another level*" (Marget [1934–42] 1966, 2, p. 177).

Analogously, Marget (ibid., pp. 255–56, 553–56) construes the "market" supply curve, which interacts with the market demand curve to yield realized prices, as the momentary, Wicksteedian "curve of reserve prices," which is the reversed portion of the general demand curve representing sellers' reservation demand for the existing stock of the good. As Marget (ibid., pp. 554, 556) points out, the concept of sellers' reserve prices embodies recognition of the element of expectation and of the all-important distinction between "amount supplied" and "amount produced," which is necessary when "accounting for prices *realized and the amount of sales realized* within a given historical ('clock-time') period."

The analytical significance which Marget assigns to momentary (disequilibrium) positions of rest is not intended to belittle the usefulness of equilibrium analysis, nor does it imply a lack of interest in market adjustment processes unfolding over time. To the contrary, it is precisely because the experienced outcomes of the market process do not coincide with expected outcomes that the participants are induced to revise their expectations and plans during each succeeding lull in the market process, thereby precipitating another round of realized transactions. Assuming the underlying data are unchanged, the Wicksteed-Mises-Marget approach yields a coherent explanation of how, as information becomes more complete and speculation more accurate, PSRs succeed one another until the intermediate equilibrium situation represented by a fully-arbitraged state of rest (or WSR) is brought into being. Thus as Marget (ibid., pp. 235–36) argues:

> without the use of [instantaneous] market demand and supply curves . . . it is impossible to explain either (1) why, of a given range of *possible* "ex ante" prices, only one is "realized" in a given market situation; or (2) how the *goals* of dealers and consumers, even when these goals are short-period goals, are approached (if they are approached at all) through successive realized market transactions. And without a conception of an "equilibrium" price, even over a period as short as [Marshall's market day], it is in many cases impossible to understand what these goals are, and therefore why the successive market demand and supply schedules show the direction and the type of change that they do, and therefore lead to the successive realized prices actually registered in successive market transactions.

It should be added that the "short-period" equilibrium implied in Marget's dealer-consumer market is the WSR, which, as I argued above, is appropriate to analyzing the short-period arbitrage processes and nonproduction speculative activities involved in the adjustment of the purchasing-power array of money. The WSR must not be confused with the concept of what Mises (1966, pp. 246–47) calls the "final state of rest" (FSR), which is an imaginary construction of the position of the economy when prices and production have been completely and

finally adjusted to a given alteration in the economic data, including a change in the quantity of money. Any account of the economy's approach to the FSR must refer to the specific function of the capitalist-entrepreneur or "promoter" who actively seeks to profit by allocating factors of production among time-consuming, capitalist production processes, a function which is ignored in the pure exchange analysis of the WSR, dealing as it does with fixed stocks of goods. But, as Marget teaches, the analysis of the temporal path to the FSR must also refer to the successive realized price structures that emerge momentarily and then are displaced by a successor as the equilibrating changes occurring in production continually alter the available stocks and marginal utilities of goods until production has been fully adjusted and the structure of "final" prices emerges.

The usefulness of the imaginary construct of the FSR in monetary theorizing and its relationship to the concepts of the PSR and WSR is illustrated when we trace out the consequences of a change in the quantity of money. To fully analyze this adjustment process, we must completely abstract from all other exogenous changes and processes of adjustment, and so we must begin our analysis from an FSR in which not only the distribution of cash balances and the value of money but also relative prices and production have been fully adjusted to the existing economic data. An unanticipated increase in the total stock of money will disrupt the prevailing FSR as the initial recipients of the new money suddenly discover their cash balances to be in excess of their needs. On the very next market day, they begin to disgorge the excess money balances by increasing their demands for various goods and services according to their subjective marginal utility rankings of additional units of money and goods. If we maintain our assumption that arbitrage processes work themselves out over the course of the Wicksteedian market day, the final set of transactions of the day yields a fully-arbitraged purchasing power of money. Not only will this purchasing-power array be lower than that existing at the end of the previous market day, it will also embody a different relative price structure, which reflects the altered pattern of relative demands caused by money's nonneutrality and which, to the extent that it has not been anticipated, results in entrepreneurial profits and losses.

Thus, while the purchasing power of money has been interspatially equalized, it is far from being fully equilibrated by

the end of the first market day. The second round recipients of the additional money—those sellers who are the first to be favored by the inflation-fueled increase in the demand for products and services—seeking to rid themselves of their excess cash balances, return to market the next day with their own increased demands for goods and this brings about another revolution in the price structure, with yet a new WSR emerging by the end of the day. Each succeeding market day likewise will dawn with a revised structure of demands for goods and will terminate in a WSR featuring an altered purchasing power of money, until all prices and incomes have been affected to a greater or lesser extent by the injection of the new money. As noted above, however, the permanent redistributions of income and wealth brought about by the sequential nature of the monetary adjustment process, constituting what Mises (1966, pp. 416–19) calls money's "driving force," will result in a permanently altered structure of relative demands for consumer goods as well as permanent alterations in the structure of individual time, liquidity, and leisure preferences. But even after the newly-injected money has percolated throughout the entire economy and exhausted its driving force in a general but uneven increase of prices, the adjustment process will not be complete, because it will take additional time for the production processes and capital structure of the "real" economy to be fully adapted by capitalist-entrepreneurs to the money-induced changes in consumer demands, time preferences, etc. It is only after the complete adaptation of production that the monetary adjustment process comes to an end and the "final" price structure and purchasing power of money emerges.

A Misesian analysis of the monetary adjustment process hence depends upon a number of concepts of rest or equilibrium. The PSR explains the purchasing power of money prevailing at any moment and embedded in the structure of "realized prices." The WSR is an imaginary construct which serves to isolate and illuminate the arbitrage and speculative forces that are constantly propelling the market to rapid convergence upon a single price for each and every commodity (taking into account differences in spatial quality) and a geographically uniform value of money. While the overall economy is unlikely to ever come to rest in a fully-arbitraged state, historical insight leads to the conclusion that arbitrage processes run their course relatively rapidly in clock time, especially where there exist professional arbitrageurs and commodity speculators, organized commodity

and retail markets, sophisticated communications and transportation, and consumer advertising. Thus, the interspatial equalization of the purchasing power of money does not wait upon the culmination of the overall monetary adjustment process, which may take years, but is a powerful tendency exhibiting itself at every step of the process. For Mises ([1953] 1971, p. 174) not only is such a tendency deduced "from the principles of the theory of prices," it is "clearly demonstrated day by day in the market." Therefore, it is an historical judgment and not polemics which prompts Mises (ibid., p. 176) to declare that "the exchange ratios between money and economic goods of completely similar constitution in all parts of a unitary market area . . . are at any time equal to one another." Wicksteed ([1932] 1967, 1, pp. 144), in fact, reaches a similar conclusion, stating that "this ideal state of equilibrium [i.e., the WSR] never exists; but a sense of mutual advantage is perpetually bringing about approximations to it."

However, as I argued above, the monetary adjustment process cannot be completely accounted for without reference to the FSR, because variations in the monetary data inevitably modify relative income and wealth positions and hence bring about an alteration in relative prices. These money-driven changes in the structure of relative prices account for the profits and losses realized in the transactions that establish the PSR at any point in the uncompleted adjustment process. The emergence of profits and losses impels entrepreneurs to immediately begin revising purchase, sale, and production decisions and so to drive the economy through a series of temporary states of rest toward a final position of full adjustment and zero profits. Unlike the geographically uniform value of money of the WSR, which is closely approximated in actually prevailing market conditions, at any point of historical time, the economy is always far from reaching the FSR. The FSR only indicates the direction of movement of the historical market process at any moment. As Mises (1966, p. 245) writes: "the final state of rest will never be attained. New disturbing factors will emerge before it will be realized. . . . the market at every instant is moving toward a final state of rest. Every later new instant can create new facts altering this final state of rest."

In addition to this pathbreaking analysis of the international adjustment process and formulation of the law of one price under the conditions of a single money, Mises also pioneered in the early twentieth-century revival of the purchasing-power-parity

(PPP) theory of exchange rates and in the formulation of what is now known as the "asset market" view of the influence of expectations on the formation of the exchange rate, two key elements of the MAIA when applied to the case of independent but co-existing moneys.

Edwards (1985, p. 73) points out that Mises rediscovered the PPP theorem four years before Cassel published the first of his many statements of it.[19] Edwards, unfortunately, does not perceive the fundamental difference between the Casselian and Misesian formulations of the theorem, which is crucial to explaining why Mises continued to rigorously maintain the "absolute" version of the theorem long after Cassel and almost all other economists abandoned it for the empirically testable "relative" version. Nor does he remark on the fact that Mises never vitiated the explanatory significance of the theorem by restricting it to a situation in which "real shocks" to the economy and therefore alterations in relative prices are assumed absent, as Cassel apparently did (Officer 1982, p. 254).

For Mises, the equilibrium exchange rate, or what he initially called the "static" and later the "final" exchange rate, between two currencies exactly equals the inverse of the ratio between the purchasing powers of the two currencies. In the Misesian version of the theorem, moreover, a given depreciation of the overall purchasing power of currency A relative to currency B effects an increase of the final price of B in terms of A in precisely the same proportion, despite the permanent revolution in relative prices that is invariably produced by the depreciation process.

The differences between Mises and Cassel ultimately stem from Mises's analytical coup in perceiving the artificiality of the distinction long maintained in classical monetary analysis between the case of a parallel standard, i.e., two different moneys circulating side by side in domestic use, and the case in which there is only one kind of money employed in domestic transactions while another kind is in use abroad. According to Mises ([1953] 1971, p. 179), although "prevailing opinion" treats the two cases separately, "there is no theoretical difference between them as far as the determination of the exchange-ratio between the two sorts of money is concerned." Where economic relations exist between a gold-standard country and a silver-standard country, "from the economic point of view, both metals must be regarded as money for each area" (ibid., p. 180). Furthermore, according to Mises (ibid.), whether traders utilize

both moneys or the "foreign" money along in carrying out an international transaction, "the only important point is that the existence of international trade relations results in the consequence that the money of each of the single areas concerned is money also for all other areas."

One of the few economists who appreciated Mises's theoretical breakthrough in this area was Lord Robbins (1971, p. 22) who wrote: "As von Mises pointed out years ago, the theory of the foreign exchanges can be viewed simply as a special case of the theory of parallel currencies."[20]

As simple and compelling as Mises's insight is, it has revolutionary implications for the analysis of exchange-rate determination. Most importantly, the exchange rate between two different national currencies is no longer determined, as it was for Cassel (quoted in Officer 1982, p. 252), by the "quotient between the general levels of prices in the two countries." National price levels, each of which include purely domestic goods, e.g., houses and haircuts, whose spatial quality components render their prices interlocally, and *a fortiori*, internationally incommensurable, are wholly irrelevant to the issue, because there is no longer a reason to distinguish between internationally "tradable" goods and domestically produced and consumed "nontradable" goods. As in the case of domestically co-existing parallel currencies, each and every spatially-differentiated good finds expression in the purchasing-power array of each of the two national currencies.

The Misesian exchange-rate theorist would thus reject out of hand the claim of modern macro theorists such as Jeffrey D. Sachs and Felipe B. Larrain (1993, pp. 657–58) that the presence of nontradable goods "affects every important feature of an economy, from price determination, to the structure of output, to the effects of macroeconomic policy [and] undermine[s] the case for purchasing power parity." In fact, all goods can be and are traded internationally, even though many are "immovable" or "nontransportable." Certainly, one of the lessons learned from the exchange-rate gyrations of the 1980s was that American real estate and consumer services, when rendered sufficiently cheap by a depreciated dollar, are purchasable by foreign speculators and tourists. For the Misesian, the apparent problem presented to the PPP theorem by the existence of goods whose position in space is fixed is easily soluble when the spatial dimension of quality is taken into account.

Thus, for example, if the final or PPP exchange rate between

the U.S. dollar and the British pound is two-to-one, then the pound price of a house located in London must be exactly one-half the dollar price of this same house. Of course, due to consumer perceptions of the difference in quality between the two cities as residential locations, the final price in dollars (pounds) of an identically constructed house situated in Manhattan may be triple that of the London house also expressed in dollars (pounds). To maintain purchasing power parity, therefore, it is not necessary that technologically identical but immovable goods available in different locations maintain equal prices in the same currency, but only that the ratio of the prices in two different currencies of an immovable good in the same location equal the inverse of the exchange rate between these two currencies. If the ratio of currency prices for any given commodity diverges from the prevailing exchange rate, then the final state of rest has not yet been attained, and profit opportunities will exist for selling goods for the relatively overvalued currency, purchasing the undervalued currency, and using it to repurchase the original good. These arbitrage operations will drive the exchange rate and the ratio of currency purchasing powers toward a mutual and final adjustment.[21]

Another feature which significantly distinguishes Mises's formulation of the PPP theorem from Cassel's involves the question of whether the exchange rate is exclusively a monetary phenomenon, or whether changes in the nonmonetary data are capable of bringing about a permanent departure of the equilibrium exchange rate from the rate which maintains strict PPP between the two currencies. As alluded to above, especially in his later writings, Cassel himself seems to have hinted at what might be termed an "inclusive" approach to exchange-rate determination, i.e., one which includes references to non-monetary factors as codeterminants of the exchange rate.[22]

More recently, proponents of the modern MAIA have been sharply criticized for writing out models of exchange-rate determination that embody an absolute version of the PPP theorem along Casselian lines and that exclude any reference to the influence of real factors on the formation of the exchange rate. Thus, for example, Thomas M. Humphrey ([1980] 1983, pp. 195, 200) has argued that "The main shortcoming of the monetary approach is that it ignores the effect of real relative price changes on the exchange rate. In particular, it ignores the influence of changes in the *real terms of trade* (i.e., the relative price of imports and exports) and *internal relative prices* (i.e., the

relative price of exports and domestic nontradeable goods). . . . [R]eal structural changes in tastes, technology, and market structure . . . operating through real relative prices . . . necessitate real equilibrium changes in the exchange rate and thereby produce systematic divergences from purchasing power parity."

Whatever the validity of this criticism of the PPP theorem formulated in terms of relative national price levels, it has no bearing whatever on a theorem relating to the relative purchasing powers of independent currencies coexisting in a unitary market area. The Misesian version of the PPP theorem remains intact in its absolute and exclusively monetary formulation.

To illustrate, let us consider the case of a monopolistically-induced increase in the price of oil, the U.S. import, relative to the U.S. export, wheat. While the "terms of trade" turn against the U.S., *ceteris paribus*, i.e., in the (unlikely) absence of any induced changes in the monetary data, there will be no long-run depreciation of the U.S. dollar against the Saudi riyal, because both currencies experience an equal reduction of their purchasing powers in terms of oil and, assuming the demand for oil is inelastic along the relevant segment of the global demand curve, equal increases of their purchasing powers in terms of wheat. Of course, this is not to deny that short-run and self-reversing fluctuations in the exchange rate may accompany the market's adjustment to the alteration in relative prices. Thus U.S. consumers may initially respond to the increased price of oil by increased expenditures on oil without a corresponding reduction in their spending on wheat, allowing their cash balances to temporarily run down.[23] This will cause an "overabsorption" of output relative to their shrunken real income by U.S. residents, creating an excess demand for riyals in the foreign-exchange market and necessitating a temporary rise in the exchange rate and a depreciation of the dollar. The movement in the exchange rate will thus assist in clearing excess demands in output markets and adjusting the terms of trade to prevent overabsorption and preserve balance of payments equilibrium, but only until U.S. residents' expenditures adjust, cash balances are reestablished at their former equilibrium levels, and the exchange rate floats back down to its unchanged PPP level.

Moreover, other things are not likely to remain equal; in particular, we can expect a change in the relative demands for the two currencies which results from the redistribution of

income and wealth from U.S. entrepreneurs and laborers to their Saudi counterparts and leads to a long-run depreciation of the dollar. But it is the relative decline in the cash-balance demand for the dollar and therefore in its purchasing power *vis-à-vis* the riyal, and not the deterioration of the U.S. terms of trade, which is the direct cause of the change in the *final* exchange rate.

There remains to be noted Mises's status as a forerunner of the modern explanation of the effect of expectations on the exchange rate. The modern "asset market view," as it is called, treats foreign exchange markets as efficient asset markets in which current prices and exchange rates adjust promptly to changing expectations regarding the prospective development of the relative purchasing powers of the various currencies. Modern writers in the MAIA tradition, who have been responsible for reviving this view, generally give credit for its origination to such writers as Cassel, Keynes, and Dennis Robertson, and to German-speaking writers, including Walter Eucken, Fritz Machlup, and Melchior Palyi (Kreinin and Officer 1978, pp. 28–31; Humphrey [1980] 1983; Edwards, 1985, p. 79).

These economists writing in the 1920s arrived at this view while seeking to explain the significant discrepancy that they observed between the rates of price inflation and exchange-rate depreciation toward the end of the German hyperinflation. While Mises has been recognized as meriting inclusion in the group who pioneered the asset market view, and even as "perhaps its strongest proponent" (Humphrey [1980] 1983, p. 192), Edwards (1985, pp. 80–81) discovers a sophisticated statement of the view presented by Mises in the first German edition of the *Theory of Money and Credit* published in 1912, two years before the inception of the German war inflation. Amazingly, while Mises thus enjoyed a temporal advantage over the other expositors of the asset market view, he suffered the distinct disadvantage *vis-à-vis* those writing in the 1920s of not having had the direct and stark experience of the hyperinflation available to guide his inquiry.

In re-evaluating the main elements of Mises' monetary theory, one thing especially stands out. Mises took great pains to establish his theory of money on the bedrock of value and price theory. However, the value-theoretic concepts that Mises relied upon in pursuing his monetary analysis were not derived from Walras, Pareto, or Marshall but from Menger, Böhm-Bawerk, and Wicksteed. This fact goes a long way toward explaining the lack of comprehension that Mises' monetary theory has generally met

with among mainstream monetary economists. While it represents an added burden to those who seek to present the Misesian approach to a wider audience, it also offers an opportunity to acquaint neoclassical economists with the fruitfulness of an alternative, but not unrelated, tradition in value and price theory.

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[1] The first to make this point was Ludwig von Mises ([1920] 1990) in his classic article demonstrating the impossibility of economic calculation under socialist central planning. For recent reviews and elucidations of the socialist calculation debate from a Misesian perspective which emphasize the same point, see Rothbard (1991); Salerno (1990a, pp. 45–49; 1990b).

[2] For an overview of the forerunners of the New Monetary Economics by two of its proponents, see Cowen and Kroszner (1987).

[3] A critique of Hayek’s scheme for privately issued paper fiat currencies is provided by Rothbard (1992b, pp. 2–5).

[4] For a critique of the Timberlake twist on the Greenfield-Yeager proposal, see Rothbard (1992a); Timberlake’s earlier, and much sounder, proposal is evaluated by Salerno (1982, pp. 16–18).

[5] This oversight is just beginning to be redressed in the mainstream economic literature. See, for example, High and Bloch (1989) for recognition of Mises and other neglected Austrian forerunners of the ordinalist revolution of the 1930s.

[6] This is true even of such allegedly revolutionary monetary theorists as Irving Fisher, hailed by Milton Friedman as the “greatest economist that America has ever produced.” While Fisher ([1913] 1985, pp. 47, 53) identified bank deposits as an

"excellent substitute" for money, he insisted that they "are not money." Even Edwin Cannan, who was one of the pioneers in formulating the demand for money as an asset or stock demand and whom Mises (1990a, pp. 23, 172) referred to more than once as "the great British economist," maintained a rigid distinction between bank deposits and money. See, for example, Cannan (1929, pp. 64–85); a good survey of Cannan's contributions to monetary theory can be found in Gregory (1927).

[7] Lawrence H. White (1986, p. 314 n. 23) criticizes Mises's use of the term "money substitutes" to designate secure and instantaneously redeemable claims to money, i.e., money certificates plus fiduciary media, as "confusing" because the term suggests "nonmoneyness." But it is precisely Mises's point in using such a term to indicate that claims to the standard money, e.g., gold, whether fully backed by gold or not, as long as they are perceived by the issuing institution's clients as instantaneously redeemable for gold at face value, are *not* money in themselves, because their value is not determined by a valuation process independent of that which determines the value of gold. In contrast, in suggesting as replacements for Mises's "money substitutes" and "money-in-the-narrower sense" the terms "inside money" and "outside money," respectively White himself might be charged with sowing confusion for implying that the instantaneously redeemable bank notes and deposits he denotes by "inside money" constitute a separate money whose value is determined independently of the value of the money commodity. But if we look more closely at White's free banking position, we discover that this is precisely what he intends to imply. For the free bankers, from the very moment of their first issue, bank notes and deposits are considered a fiat money in embryo, whose "invisible-hand process"-driven by evolution to maturity will result in the full and final expulsion of gold from its monetary role. Thus, the contractual suspension of specie payments and option clauses that free banks allegedly will negotiate with their clients, when they are implemented or even if they are widely expected to be, will establish "bank money" (another favored term) as an independently-valued credit money. Eventually, in the "mature free-banking system," according to White and Selgin ([1987] 1989, p. 235), there would emerge a situation in which, "At the limit, if inter-clearinghouse settlements were made entirely with other assets . . . and if the public were completely weaned from holding commodity money, the active demand for the old-fashioned money commodity

would be wholly nonmonetary," and the public would presumably be finally freed from its shackles of gold to enjoy the virtues of an invisible-hand-generated private fiat money.

[8] This case has been made by Rothbard (1978) and Salerno (1987), who argue for inclusion in the money supply of all currently spendable dollars in the economy, i.e., those immediately obtainable without penalty or risk of capital loss. As reported by the Federal Reserve Bank of Cleveland (1992, p. 3) recently, Shadow Open Market Committee member William Poole has endorsed a monetary aggregate, MZM (for "money of zero maturity") which seeks to identify and capture those dollars "immediately available without penalty or risk of capital loss" and which comes close to the TMS (for "true money supply") aggregate developed by Rothbard and Salerno. The main difference between the two is that TMS excludes, while MZM includes, all Money Market Mutual Fund shares; both include, in addition to items in M1, savings deposits and Money Market Deposit Accounts, at the same time excluding small time deposits. White (1986), on the other hand, beginning from a Misesian medium-of-exchange definition of what constitutes money, similar to Rothbard and Salerno's, arrives at a much narrower empirical measure of the money supply which excludes non-checkable demand deposits, such as, passbook savings accounts, on the grounds that the passbooks themselves do not literally pass from hand-to-hand in the payments process. Israel M. Kirzner (1976), in a critique of Rothbard, raises the same objection as White to the inclusion of non-checkable deposits in the money supply, and then goes further to express skepticism of any attempts to produce a statistically unweighted aggregate of the nominal stock of money. It is ironic that Kirzner's thoroughgoing commitment to subjectivism should lead to his rediscovery of and support for a Divisia-type monetary aggregate in advance of its modern reintroduction into mainstream monetary economics in the 1980s. For a brief critique of the White-Kirzner position on excluding non-checkable demand deposits from a monetary aggregate based on the medium-of-exchange definition of money, see Salerno (1987, pp. 2–3).

[9] Rothbard's analysis of the demand for money implies that it tends to be basically inelastic due to the high inelasticity of what he calls the "exchange" or "pre-income" component of monetary demand, which is distinguished from the "reservation," "cash-balance" or "post-income" component. The former is expressed in the exchange for money of the services of the

original productive factors, land, and labor, and of existing inventories of capital and consumer goods, for which the reservation demands of their producers are usually highly inelastic. See Rothbard ([1962] 1970, 1, pp. 662–67; 2, pp. 350–56). The inelasticity of the exchange demand for money is similarly accounted for by Herbert J. Davenport ([1913] 1968, pp. 267–73). Davenport (ibid., pp. 301–3, 316–21) also provides a surprisingly modern account of the reservation demand for money, as a short-run, speculative phenomenon, but ultimately fails to integrate the two components into a satisfactory overall theory of the demand for money.

[10] On the key role played by the assumption of the constancy of relative prices for deriving the neutrality of money in Patinkin's system, see Rousseas (1972, pp. 53, 72).

[11] For a recent, vigorously-argued vindication of this position, see Hans-Hermann Hoppe (1992).

[12] On the nature of plain saving as distinguished from capitalist saving, see Mises (1966, pp. 530–31).

[13] Also see Mises (1966, pp. 404, 463), for similar statements.

[14] Even the practical usefulness of index numbers for judging day-to-day variations in the purchasing power of money is severely limited. As Mises (1966, pp. 222–23) points out, "A judicious housewife knows much more about price changes as far as they affect her own household than the statistical average can tell. She has little use for computations disregarding changes both in quality and in the amount of goods which she is able or permitted to buy at the prices entering into the computation. If she 'measures' the changes for her personal appreciation by taking the prices of only two or three commodities as a yardstick, she is no less 'scientific' and no more arbitrary than the sophisticated mathematicians in choosing their methods for the manipulation of the data of the market."

[15] Mises arrived at this insight independently of Nassau Senior, whose work containing the treatment of this problem was not published until 1928. On this point and for a discussion of Senior's contribution, see Wu (1939, pp. 126–28); also see Bowley ([1937] 1967, pp. 205–8).

[16] I am using the term "consumer surplus" in a purely psychic sense to denote the ordinal difference in value ranking between a good and its monetary purchase price. This is the sense in which Mises (1966, p. 388) uses the term.

[17] The classic discussion of the country fruit market can

be found in Wicksteed ([1932] 1967, 1, pp. 219–28). A very good analysis of a pure exchange economy can also be found in Kirzner (1963, pp. 105–35). In contrast to Wicksteed's methodological focus on an isolated "market day" in a full production-and-exchange economy, however, Kirzner (ibid., p. 106) begins his analysis with an "imaginary economy" in which he assumes "*no production is possible*"; all commodities are obtained costlessly by natural endowment. Unfortunately, Kirzner's methodological construct is inferior to Wicksteed's, because it serves to divert attention from the vitally important point that the analysis applies just as fully to the real-world economy of continuing and costly production, since the market's pricing process always proceeds on the basis of stocks of goods that have already been produced and are therefore fixed or in inventory for the given moment.

[18] Although this construction of a fully-arbitraged, but not final, state of rest is implicit in much of Mises's monetary theorizing, he never formally analyzes it, as he does the PSR.

[19] According to Officer (1982, p. 251 n. 1) Cassel devoted at least parts of twenty-five English-language publications to expounding the PPP theorem. Officer (ibid., p. 252) reports that Cassel claims to have perceived the main point of the theorem in 1904 and to have incorporated its main ideas into his classroom lectures as early as 1905.

[20] Rothbard ([1962] 1970, p. 725) also follows the Misesian approach in theorizing about exchange rates.

[21] A good explanation of this arbitrage process is given by Rothbard ([1962] 1970, pp. 725–26).

[22] Officer (1976, p. 9) has argued this, while Paul Samuelson (1966) has denied it. For a brief description of this "milder approach," see Krueger (1983, p. 68).

[23] Hayek ([1937] 1971, p. 18) in his earlier incarnation as a Misesian monetary and business-cycle theorist discusses cash balances as cushions permitting market participants to soften and delay the adaptation of their real incomes to their altered money incomes. This function of cash balances has recently been rediscovered in the literature on the "buffer" or "shock-absorption" approach to the demand for money. See, for example, Kanniainen and Tarkka (1984), Knoester (n.d.), and Laidler (1984).

Justice and Redistributive Taxation: James Buchanan versus Ludwig von Mises

David Gordon

The phrase "redistributive taxation" is in a sense misleading. The modifier "redistributive" suggests that some taxation is *not* redistributive. A moment's reflection will show that this is not the case. There would be no point in taking money from someone in taxation and returning to him precisely that amount. Unless taxation shifts resources, it achieves nothing. (It can of course work out that some people receive in benefits about what they pay in taxes; but this can hardly be the aim of the system.)

I address redistribution in a narrower sense here. It has sometimes been argued that the poor or those in other ways needy ought to receive compulsory benefits from those better off than they. Along the same lines but neither implying nor implied by the view just stated, some argue that too much difference among members of a society in wealth or income is usually undesirable and that the state ought to level income or wealth.

The arguments for these positions are many and various, but two limitations render the topic proposed for discussion here more manageable. First, only redistribution confined to a particular society (understood as equivalent to a modern nation-state) will be addressed here.[1] Claims that, e.g., citizens of the United States ought to give substantial amounts of their income to the impoverished in other parts of the world will be passed by. Also, our subject is redistributive taxation, within an economic system not centrally directed by the state. Some writers maintain that egalitarian (or other) reasons require the replacement of a market system with socialism or some other system, e.g., an economy controlled by workers' cooperatives. Others believe that a market system is not morally objectionable, provided that it is supplemented by measures deliberately aimed at redistributing income or wealth. It is the latter position that will be addressed here.

More specifically, I shall first discuss the arguments for redistribution advanced by James Buchanan, probably the

leading free market defender of this policy. Then, more briefly and by way of contrast, an Austrian approach to the issue will be presented.

I

A standard libertarian contention is that everyone possesses the right to acquire and hold property. Once acquired, persons' property may not be taken from them even if, in the opinion of some, others need it more. To deny this seems at first sight to endorse robbery: What else can one term the forcible taking of property? That the takers assume the role of Robin Hood, taking from the rich and giving to the poor, hardly seems good moral justification for their activities.

One might expect James Buchanan, usually a strong supporter of the free market, to sympathize with this argument. In fact he does not. Redistributive taxation counts as robbery only if those who are taxed own the resources that are extracted from them. But suppose that they own their income only subject to the limit that part of what they own may be taken for purposes of redistribution. If so, no theft is involved; on the contrary, withholding one's money would violate the rights of those entitled to it.

The most direct argument in favor of this view is that justice demands such redistribution of property. Buchanan avoids completely this defense of redistribution. Although, as will soon become apparent, his defense of redistribution strikingly resembles the contractarianism of John Rawls, he makes no appeal whatever to the requirements of morality. In Buchanan's conception, all moral values are subjective preferences. The statement "it is wrong to kill for fun" tells us nothing about the world. It is neither true nor false; rather, those people who act in accord with it rank "not killing for fun" higher than "killing for fun" on their preference scales.[2]

Lest at the outset we misrepresent Buchanan, it does not follow at all that he thinks moral judgments do not matter. Preferences can be extremely strong; most people, e.g., will regard those who kill for fun with great horror. His point about subjectivity does not concern the importance of moral views. Whatever the importance of moral views are to those who hold them, there is no objective way to settle conflicting judgments about moral situations. No doubt most of us would regard someone who believed in killing for fun as a moral monster. This

would not show that he was incorrect in his view, in the sense that someone would be incorrect who thought that increased demand reduces price.

If moral judgments merely state or express preferences, how can Buchanan's case for redistribution proceed? He can of course say that he favors redistributive taxation, but this gives no one who does not share Buchanan's preference a reason to alter his position. Buchanan, of course aware of this problem, seeks to evade the seeming implications of the moral subjectivism he professes by an ingenious stratagem.

Although there is no objective truth in morality, something does exist that for practical purposes is just as good. (In fact, as will be explained below, it is Buchanan's opinion better.) The substitute for truth is consensus. If everyone in a society agrees to something, this offers a good reason to establish the measure in question: "Good reason" not in the sense that it is objectively right that people ought to get what they want, but rather in the sense that if we wish to realize our own preferences, we will favor it.

At first sight this proposal appears to get us nowhere, since so far as redistributive taxation is concerned, there is no consensus. Some favor it, going so far as to think everyone should have an equal income; others oppose it altogether. On Buchanan's subjectivist doctrine, must we not fight it out on an arbitrary basis? How else can a redistributive policy be settled on, in the absence of either objective truth or agreement?

It is precisely in the midst of this apparently irresolvable warfare that Buchanan finds an escape. To establish a society's system of rights, we must start somewhere. To him, a proper beginning is a state of affairs in which people accept no moral constraints and must establish a constitutional order either by agreement or fighting.[3] To assume at the outset that certain rights exist would give these a privileged position: In a subjectivist outlook, doing so is completely arbitrary.

Again it appears that Buchanan has backed himself into a corner. People in the Hobbesian state of nature he has invoked might come up with anything at all or nothing. Would not the outcome depend on which preferences people actually had in this situation, and how strong or persuasive the various persons happened to be?

Buchanan dissents. He thinks that almost all people in the state of nature would agree on a group of rights that secure to each individual a standard set of civil liberties including the

freedom to own property. In the absence of continual bickering and warfare, each person can better endeavor to attain his goals. Almost no one wants to be in Hobbesian "war of all against all": hence the strong incentive to agree on minimum terms to exit from it.[4]

One might object that if some people liked the war of all against all, Buchanan cannot gainsay them; their preference is objectively on the same level as the wishes of their more pacific neighbors. No doubt; but so long as almost everyone disagrees with them, they can be compelled to conform. After all, there exist no objective moral restraints against the use of compulsion.

Buchanan may be right, but so far we have justified no redistributive measures. How do we know that people in the state of nature would favor them? Buchanan's response to an extent resembles that made famous by Rawls in *A Theory of Justice* (Cambridge, Mass.: Harvard University Press, 1971).[5] If vast inequalities of possessions exist in the state of nature, those with few possessions may not find it desirable to agree to a property rights system with no redistribution. Instead, they may find it to their advantage to refuse to cooperate and, relying on the force of superior numbers, gang up on the few wealthy. To counter this, the wealthy must buy them off.

Another consideration tells in favor of some degree of redistributive taxation. Although Buchanan's rational contractors do not operate behind a "veil of ignorance," many of them will have some doubt about their future prospects. If so, they will demand redistribution as an "insurance policy" against their failure.

Additionally, Buchanan believes that widespread agreement exists on certain procedural "rules of the game." Questions about euthanasia or abortion may well polarize people; but almost everyone thinks that people deserve a fair shake. Allowing too much inequality would be the equivalent of starting people off unequally in a race.[6]

Equality can, however, go too far. Once some measure of redistribution has been instituted to start people off in a reasonably equal fashion, people are in Buchanan's view, free to use their varied incomes to their greatest advantage, even though, as a result of different abilities as well as accidental factors, inequalities are bound to rise.

How much is too much? Besides taxes for redistribution, Buchanan supports high inheritance taxes. Public education, financed by taxation, may also be justifiable on egalitarian

grounds.[7]

There is an upper limit. In the presentation of the case for redistribution, many readers will probably have wished to interpose an objection. Even if the poor have to be bought off by redistribution in order to obtain their agreement to depart from the state of nature, why do the non-poor have to unite with them in a single society? What if the well-off form their own society and exclude those whom they regard as predators, i.e., the redistributionists?

To this there are two replies. First, as already mentioned, Buchanan thinks it false that only those who directly benefit from redistribution support it. Second, he entirely accepts the substance of the point just raised while denying that it has created any problems for his position. If wealthy people (or anyone else) do not like the conditions existing in their society, they are free to depart. Since everyone knows the wealthy can do this, redistribution must be below the lowest amount that will cause them to go. Higher rates of redistribution will be self-defeating.

There is one catch, however. If only a few people leave to form a society of their own, it will be very difficult for them to create an economy with any semblance of productivity. In almost all circumstances, the wealthy will find it to their advantage to remain within the larger society.

Before turning to an evaluation of Buchanan's argument, one further point requires mention. He deems it of crucial importance that the agreement by which a society constructs a system of rights is not subject to the vagaries of day-to-day politics. It establishes a constitution for the society; although naturally some room for legislative discretion remains, persons' property rights are in place and difficult to alter.

Buchanan's provocative attempt to show that a free market order not only permits but virtually demands redistribution does not succeed. This essay has as its theme taxation, not the foundations of ethics. But it should at least be noted that Buchanan gives no convincing arguments for his fundamental assumption that all values are subjective.

This issue crucially affects the validity of his case for redistribution. Since preferences need not justify themselves before any external court of appeal, people in the state of nature are morally at liberty to agree to any arrangements they find to their mutual advantage. If, in contrast, the right and the good are not entirely matters of free choice, the situation altogether

changes. If, e.g., everyone has certain rights by nature, people are morally required to acknowledge them rather than substitute something else as takes their fancy.

In support of his subjective view of morality, Buchanan claims that the position he opposes, i.e., that moral statements are true or false judgments about the world, leads to intolerance. If one believes that smoking is immoral and intends by this more than an expression of dislike, one will be apt to think it justifiable to suppress smoking. Smokers will not like this; but they are wrong and that is that. If one adopts Buchanan's view, one will live and let live; one will recognize that another person's preference is just as good as one's own.

Buchanan acknowledges an objection to his contention. What if someone thinks it objectively wrong to impose his views on others, even though the views are correct? (Of course, some things *should* be imposed on others; those who like assaulting others should not have this expression of preference tolerated. But this is not an area of dispute between Buchanan and his critics.) Libertarians, in point of fact, believe just this. Those libertarians who base their position on natural rights do not endorse forcible indoctrination of people with their views, even though they believe them true. Their very position forbids this.

Buchanan remains unshaken. While he does not deny that some moral realists are tolerant, he holds that *his* attitude leads to more tolerance. Therefore, subjectivism remains preferable over this approach.

His argument strikes me as unconvincing, but a full discussion is not needed. Suppose that he is right: His subjectivism leads to more tolerance than competing interpretations of morality. So what? Why should this be the test by which a moral theory is judged? No doubt tolerance is a virtue; but this does not make true an analysis of morality whose general adoption would result in tolerance. Except to pragmatists, truth and good consequences are two very different things.

As to the argument itself, the mere fact that someone thinks that values are subjective hardly seems in itself sufficient to induce tolerance. Why should I not try to impose my tastes and desires on others, if I can? Tolerance, after all, is in Buchanan's view just a preference which I may or may not share.

When Buchanan says that moral values are preferences, in one sense he is clearly right. To the extent that one's moral principles guide action, they prescribe choices. But nothing about

objectivity follows from this. Anything that one chooses is, by definition, part of one's preference scale. Where there exist principles that tell us what we ought to choose is another matter entirely.

The preceding few paragraphs may have seemed remote for our topic, but in fact they are not. Without his doctrine of value subjectivity, Buchanan would have no basis for his claim that whatever people agree to in the state of nature provides a fit basis for rights.[8] If values are objective, the possibility exists of moral criticism of the agreements emerging from the Hobbesian situation (unless objectivity mandates; but, as we shall soon see, it does not). Buchanan says, in effect, "Given the absence of agreement, we have to start somewhere; and the Hobbesian state of nature seems a natural starting point." Given true moral principles, we do not have to start from an amoral position.

An important question yet remains. Even if the criticisms given of the Hobbesian starting point are right, many economists and philosophers have found contractarianism of this sort illuminating. If so, it is of more than a little interest to see whether Buchanan's redistributive conclusion follows from his Hobbesian premises.

The issue unfortunately cannot clearly be resolved, since Buchanan's case appeals to intuitive plausibility rather than rigorous logic. He nowhere offers a proof that his rational contractors will agree on redistribution. His strongest argument is that the less well off will not agree to leave the state of nature unless they are promised redistribution in their favor. No doubt it is correct that they will prefer this; but those from whom the taxes will be taken will not share this preference. (This abstracts from Buchanan's claim that *everyone* supports redistribution. This view will be discussed next; here we consider the matter just from the point of view of self-interested actors.) Why should either preference always win? The question appears incapable of decision at the *a priori* level.

But does this not to ignore Buchanan's argument that, in the absence of redistribution, the poor will refuse to enter society? In reply, a point Robert Nozick has raised against Rawls speaks precisely to this issue. Why do the poor need society less than the rich? Both groups benefit from leaving the state of nature; and threats and strategic behavior by one group are a monopoly of neither side.[9] Buchanan has failed to show an asymmetry between the rich and the poor which operates to the advantage of the latter in the bargaining.

A counter thesis is tempting here, but it too must be rejected. One might at first glance think that because the advantages of social cooperation over the state of nature make it imperative to reach agreement, everyone will arrive at terms likely to be universally satisfactory rather than hold out for their special interests. If so, will not the easiest point of agreement be on a system with property rights but no redistribution? Since we assume that people desire a regime with property rights, why increase the difficulty of agreement by requiring more than the minimum needed to exit the state of nature?

Exactly this argument has been recently advanced by the libertarian philosopher Jan Narveson.[10] But it fails because no clear criteria show what is the simplest system of property rights. An agreement that incorporates limits on the permissible degree of inequality seems offhand as simple as one without this feature.

We have so far argued that Buchanan has failed to prove that the state of nature is the proper starting point for determination of rights; and that even if it were, he has not shown that people would agree to redistribution. But we can go one step further. The state of nature, far from being a good starting point, is morally unacceptable. In it, people are at perfect liberty to threaten or use force against one another. An agreement made under such terms has exactly the same moral force as any other agreement made under duress—little or none. To say that such agreements are the *fons et origo* of morality strikes one as wildly implausible.

Buchanan himself is aware of this objection. As he notes, slavery for some might be sanctioned by the agreement. If, in the state of nature, some people are too weak effectively to resist the force of others, a contract that allows slavery under fixed conditions may be to the advantage of both slave and master. Buchanan notes that many philosophers consider this morally outrageous. In reply, he again remarks that in the absence of agreement, there is no other natural starting point but the one he advocates.

His reply presupposes just the moral skepticism that we have already discussed. Unless one adopts Buchanan's view that morality rests on subjective preferences, nothing requires acceptance of his starting point; and, as we have just seen, a good deal calls for its rejection.

Buchanan's remaining arguments for redistribution of income seem detachable from his Hobbesian framework. In brief, he contends that almost everyone finds plausible certain fair

rules of procedure that strongly tend in the direction of equality. To start some people far ahead of others in the race of life seems unfair.

Here one can appropriately cite Buchanan against himself. Some people no doubt feel the way he believes fitting about inequality. But others do not. Even if Buchanan is himself in the former group, this counts on his own theory as a mere preference. In the absence of general agreement on redistribution, why should Buchanan's preference be of more than biographical interest?

Paradoxically, it might be better for Buchanan if he is wrong in his subjectivist view of morality. We can then ask the question, has he given any sound arguments in support of redistributive taxation? On his own view of morality, this question cannot arise. There are no sound or unsound arguments about morality—just preferences. There can of course be arguments about the consequences of preferences or about how one can best put one's preferences into effect. But remarks about fairness cannot be objectively true or false on Buchanan's doctrine. The issue of whether arguments are persuasive is another matter entirely. People may be persuaded by good arguments and fail to be persuaded by bad ones—if, contrary to Buchanan's position, one can speak of good and bad in this context.

Buchanan, however inconsistently, does advance some considerations in support of redistribution. As indicated already, these address the alleged unfairness of too much inequality. It is unclear whether he thinks that since most people actually hold these views, he can by calling attention to them induce support for redistribution or whether he thinks that the views are right regardless of whether others agree with him. Since, in my opinion, his view of morality as preference is wrong, his arguments will be taken in the latter way. The contention that it is unfair that people start too unequally relies uncritically on the metaphor of life as a race or competition. Of course, competition is basic to a free market economy, but this does not show that life itself is a race. People begin life with very different financial prospects; but there is no reason to assume that one has failed unless one finishes first. It might be replied here that the opportunity to become extremely wealthy is one many people desire, even granted the point that life as a whole is not a race. Initial inequality makes it much harder for some people to attain this goal.

This is certainly true; but it is not clear why people ought to be equal in the pursuit of every goal that many find desirable. People's physical appearances often make a great deal of difference to their attaining important goals, yet few find this reason to rectify matters along the lines of L. P. Hartley's *Facial Justice* (London: Hamish Hamilton, 1960).

If, further, people are concerned about inequality, Buchanan's redistributive measures will not allay their worries, since a great deal of arbitrary differences are left untouched by them. Well aware of this, Buchanan counters that even if practical obstacles and the value of liberty make complete equality incapable of achievement, at least redistribution will result in more equality than otherwise.

This is by no means certain. If differences in levels of income are reduced, other inequalities may become more important. Nothing rules out greater *in*equality as the net effect of Buchanan's proposals. Whether this outcome or some other more in line with Buchanan's wishes results is a matter on which we will not here conjecture. It is enough for our purposes to note that Buchanan's claim that income redistribution moves a society toward equality of opportunity is unsupported.

Buchanan's case for redistribution thus fails. An additional problem for his fairness arguments enters the scene when these are combined with his contractarian framework. In the state of nature, people are not supposed to be influenced by preferences about justice, since the very point of the contract is to arrive at rules of justice. If moral views about fair procedure are allowed as an exception, why cannot people use other moral views to help determine their course of action in the state of nature? If they can, why not allow the preference of those who think redistribution unjust into the initial position? By not allowing this, Buchanan has skewed matters so that his contractors will arrive at the results he favors.

Buchanan's support for redistribution fits together poorly with his general stance of sympathy for the free market. He strongly supports individual liberty: one of his reasons for favoring moral subjectivism is that this will encourage people to mind their own business. In his view, people ought not to impose their personal preferences on others. However much one may disagree with Buchanan on the foundations of ethics, there is something both appealing and right in his wish to minimize the activities of moral busybodies. But is not the preference for equality just the sort of interference Buchanan elsewhere

opposes? What is this preference but a wish to alter the incomes of other people—so that they do not from one another by more than a prescribed margin? Why does not the prescription mind your own business apply to proponents of redistribution?

II

The Austrian view of redistribution differs entirely from that of Buchanan. By "Austrian," I here intend the views of Ludwig von Mises and Murray Rothbard, in my opinion the most consistent representatives of the Austrian school. No claim is made here that all Austrian economists agree with these writers about redistribution.

One feature sharply and immediately characterizes the thought of both Mises and Rothbard. Each author distinguishes "without confusion, without separation" economics from ethics. Unlike Buchanan, who because of a subjectivist analysis of morality tries to use elementary economic theory to do the work of ethics, Rothbard believe that ethics is a discipline with its own methods and criteria.

Thus, in "Toward a Reconstruction of Utility and Welfare Economics" Rothbard (in Mary Sennholz, ed. *On Freedom and Free Enterprise*, Princeton: D. Van Nostrand, 1956, pp. 250–52) hammers home the theme that since interpersonal comparisons of utility cannot be made, economics is in no position to claim that income transfers make anyone better off. If two people make an exchange, one can say that in their own view, each thinks himself better off than before. But if a transfer is not voluntary, the economist can say nothing. One person wishes the forced transfer, and the other does not. Assessment of this requires an ethical judgment.

It would not be a good reply to this to say that the economist cannot say that anyone is made worse off by the transfer, since this too involves an interpersonal utility comparison. (We abstract here from the cost of the transfer program and its effect on productivity.) This is exactly the point: the economist cannot say anything about the justice or injustice of the measure. This is not his business.

It of course does not follow from this that nothing can be said about the justice of redistribution, apart from facts about what people prefer and how they may realize their preferences. This is Buchanan's position: but, to reiterate a vital truth, this is not part of economic science. In particular, it is not a

consequence of the subjective theory of value. Neither is it a consequence of economics that people ought to get what they prefer; this too brings in an assumption about ethics.

Mises was a utilitarian, and Rothbard is a defender of natural rights, two very different theories. However much they clash on ethics, both avoid the problem just mentioned. Mises, to be sure, in one respect resembles Buchanan. He asks the same fundamental question: how can people be enabled to realize their preferences? But Mises poses the question because he is a utilitarian: he does not, like Buchanan, abandon ethics but rather adopts the criterion of satisfaction as an ethical principle.[11] The case is even clearer with Rothbard, whose opinion of redistributive taxation stems from his analysis of the rights of self-ownership and property. Neither Mises nor Rothbard considers the question that principally interests Buchanan: what would people do in an amoral state of nature? In the absence of an argument showing that this topic has anything to do with ethics, it is the merest irrelevancy.

Rothbard carries out the separation of ethics from economics with even greater completeness than Mises. Although Mises never equates ethics and economics, he does at times rely on an argument for capitalism that in his view depends on no ethical premises. Intervention in the free market will not work, from the point of view of its advocates. Minimum wages, e.g., will produce unemployment, and prices controls, shortages. Thus, for Mises, it requires no ethical judgments to determine whether these measures should be put into effect. Assuming that people wish to realize their preferences (a principle of rational action rather than ethics),[12] they have no alternative but to reject these futile endeavors.

As Rothbard has rightly noted, not even this argument succeeds in avoiding a reference to ethics. First, it assumes that people ought to be concerned with their material welfare. No doubt most people *do* care about this, a fact Mises was not slow to note. But it does not follow from this that they ought to be, or that their preferences for material wealth ought to be overriding. Mises's use of this argument largely succeeds in bypassing this objection when it is taken within the context of his ethics. Given his utilitarian outlook, he can fairly readily supply the ethical premise we have just indicated he requires.

More controversially, Mises assumes that people ought to rank foremost the attainment of everyone's long-term material interests. But what if some people prefer their own interests to

those of society? What if a group of workers prefer higher wages for themselves by the use of coercion, at the expense of unemployment for others? Perhaps they should not act on this preference, but an argument to this effect cannot appeal merely to premises which everyone accepts. Exactly the same point applies to the issue of whether long-term interests, *selfish* or not, are to be favored over short-term. Mises can again avoid much of the force of this objection, if his claim is taken as part of a utilitarian argument.

Mises's utilitarian ethics led him firmly to reject redistribution of income by taxation. He stressed in this regard that the only permanent way to eradicate poverty lay in an increase in production. With greater total production, the poor, along with everyone else, would be better off than as the "beneficiaries" of costly programs which, by taxing income that might have been invested, lowered wealth.

It might be objected here that even if productivity rises, the poor need not share in the gains that result from this. Mises's thinking followed an utterly different line: in his opinion, capitalism was primarily a system of "mass production for the masses" and the unhampered operation of this system would be to nearly everyone's advantage. Because of their large numbers, the less well off when acting as consumers control much of the economy by indicating through their dollar votes what they want. In brief, Mises's argument against redistribution is that it is not the best means to aid the poor.

Rothbard's natural rights view of redistribution is consistent with Mises's position, though neither implied by it or implying it. In Rothbard's view, rights stem from self-ownership: each person has the exclusive right to control his or her own body. One of the activities people are at liberty to perform is to acquire unowned property: this can be done through a "Lockean" principle of labor mixture. Once acquired, property can be transmitted by gift, sale, or bequest.

The rights of people in this scheme of things preclude compulsory redistribution through taxation. To take away income from some on behalf of others is theft, just in the way suggested in the initial part of the discussion of Buchanan. In addition, income transfers in effect compel some to work on behalf of others, i.e., they involve forced labor. The fact that those who receive the transfers are handicapped or poor does not alter the case. It is not part of this position that people have no moral duty to be charitable.[13] But the condition of being

needy, even if one sets aside the arbitrariness involved in determining who counts as needy, does not generate any rights to the person or property of others. Charity cannot violate the demands of justice.

Limits of space preclude a full discussion of this challenging position. It seems to me one of very substantial appeal and insight and deserves to be addressed by anyone who favors redistribution. It is interesting to note that self-ownership has strong intuitive appeal even to those of quite other political persuasions than Rothbard's. G.A. Cohen ("Self-ownership, World-ownership, and Equality," Part 2, *Social Philosophy and Policy* vol. 3, no. 2 [Spring 1986]: 77–91) for example, a leading analytical Marxist, believes that socialists have failed to realize the full force of this principle. Few people think that someone who has two good eyes owes one of them to a blind person, even though in some sense the blind person needs it more. Nothing immediately follows about property; but granted the plausible additional premise that property is initially unowned (in the sense that until people acquire property through Lockean labor mixture, no one owns anything other than his or her own body), it seems difficult to avoid the Lockean position that self-owners can legitimately acquire and hold property. Cohen denies that property is initially unowned but as it seems to me gives no plausible arguments for this.

The point at which defenders of redistribution will be most apt to attack Rothbard's argument is the nature of initial acquisition. Like Buchanan, they will wish to limit property rights so that holders of wealth or income acquire a liability to taxation. If property is initially unowned, however, it is difficult to see how this limit can be supported. If the requirements of the poor can restrict the right to hold property, this suggests that they initially possess rights over the property which persons appropriate.[14] Otherwise, why do they have the right to part of the income from the property? Alternatively, defenders of this view might assume that someone else (the government? society?) has ownership rights to property before people begin to acquire it. Although in my opinion it is intuitively obvious that property is initially unowned, those who support redistribution will disagree. They are certainly not bound to accept a principle just because it is evident to libertarians; but they owe us explicit recognition of the fact that they *do* assume some form of collective initial ownership, and a justification for doing so. They will not have any easy time of this; and if there *are* any good

arguments for redistributive taxation, James Buchanan for one has failed to present any.

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[1] Gordon Tullock has noted that most people who are poor by U.S. standards are well off by comparison with Third World inhabitants. Why, then are the usual arguments in favor of redistribution restricted to a particular society? Gordon Tullock, *The Economics of Wealth and Poverty* (Sussex: Harvester, 1986), p. 19.

[2] James Buchanan, *Liberty, Market and State* (Sussex: Harvester, 1986), p. 126.

[3] James Buchanan, *Freedom in Constitutional Contract* (College Station, Texas: Texas A & M University Press, 1977), p. 84.

[4] Ibid., p. 129.

[5] If some players of a game have superior capacities, then our "ordinary sense of fairness" seems to be violated when such players are put on equal terms with those who have relatively fewer advantages but who must, nonetheless, participate in the same game. Buchanan, *Liberty, Market and State*, p. 130.

[6] Henry Jaffa, is another professed supporter of the market who uses this metaphor.

[7] Ibid., pp. 133–35.

[8] A "'fair rule' is one that is agreed to by the players in advance of play itself . . . fairness is defined by agreement; agreement does not converge at some objectively determined fairness." Ibid., p. 126. Of course, one might maintain that morality objectively requires Hobbesian agreement, but Buchanan does not take this line.

[9] Robert Nozick, *Anarchy, State, and Utopia* (New York: Basic Books, 1974), pp. 192ff.

[10] Jan Narveson, *The Libertarian Idea* (Philadelphia: Temple University Press, 1988), p. 177. Of course, one might maintain that morality objectively requires Hobbesian agreement, but Buchanan does not take this line.

[11] I now think this view of Mises mistaken. See David Gordon, "The Philosophical Contributions of Ludwig von Mises," *Review of Austrian Economics* vol. 7, no. 1 (1994): 103–9.

[12] Note the difference between “people wish to realize their preferences,” apart from some “trick cases,” a principle of rationality; and “it ought to be the case that, other things being equal, people be able to realize their preferences,” a proposition of ethics.

[13] Rothbard’s political ethics makes no assumptions about moral duties that are not enforceable through coercion.

[14] Or do these rights operate directly through limits on the activity of acquiring unowned property?

Arthur Marget in the Austrian Tradition of the Theory of Money

John B. Egger

Arthur William Marget (1899–1962) was a respected American monetary theorist and scholar who received his doctorate from Harvard in 1926 and taught for the next fifteen years at the University of Minnesota. His best known work, *The Theory of Prices* (2 vols.: 1938, 1942), had three goals. Marget sought to demonstrate that Keynes misrepresented the history of monetary theory, to reveal the shortcomings of Keynes's own approach, and to show that progress required an escape from the Keynesian "blind alley" and a return to the "high road" of earlier tradition.

The book was either behind its time, ahead of it, or (as I suspect) both. The doctrinal revolution that Marget opposed swept *The Theory of Prices* aside. Perhaps it was imprudent of him to pursue three ambitious goals at once, for even the book's supporters found it long and arduous.[1] Nicholas Kaldor, a non-supporter whose review managed to misstate the book's subtitle, called *Prices I* "mid-Victorian," with its "leisurely repetitiousness, elaborate style, pompous exactitude, and . . . exhaustive scholarship," reminding him "of the bourgeois solidity and spaciousness of that bygone age" (1939, pp. 495–6).[2]

For two reasons, this may be an appropriate time for a reconsideration of Marget's work. The first, which provides a backdrop, is that the interpretation and evaluation of Keynes's theory continues unabated. The second, on which this paper focuses, is the recent decades' renewal of interest in the Austrian School.

My principal argument is that most of the respects in which Marget asserted the superiority of pre-Keynesian orthodoxy over the revolution of Keynes are now primarily identified with the Austrian tradition in monetary theory.

This position calls for some explanation, because Marget had no special interest in the Austrians. He held an evolutionary theory of the growth of knowledge that he called "the Principle of Continuity," and identified Menger, Böhm-Bawerk, Mises, and

Hayek as contributors (along with many others, especially Walras and Fisher) to the monetary edifice that more than two centuries of scholarship had established by the time of the *Treatise*. To Marget they were not a unique School that posed a challenge and offered an alternative to orthodoxy: they were a well integrated part of it.

At the time, though, that is how they viewed themselves. Kirzner (1989, p. 232) notes that: "About a half-century ago, Austrians such as Mises, Hayek, and Machlup all maintained that important Austrian insights had been successfully absorbed into the mainstream by the early 1930s." By 1969, however, Mises apparently believed "that the fundamental Austrian ideas, absorbed into general economics by the 1920s came, somehow, to be lost from general economics by about 1940" (the words are Kirzner's; ibid., n. 1).

The best single word that describes what intervened is Keynes. "[I]t is he," Marget wrote, "who is largely responsible for the feeling that the Principle of Continuity does not apply as a maxim of scientific procedure at the present stage in the development of monetary theory" (1938, p. 3). But Marget (and Hayek and a few others) lost the fight, so the orthodoxy after Keynes was not the orthodoxy that Marget defended. The characteristics of established pre-Keynesian thought that Keynes and the subsequent development of macroeconomics cast out, committing the grave error of which Marget warned, were reluctantly accepted back by the Austrians, like a glorious gift returned by an unappreciating recipient.

That is why I believe that Marget's staunch defense of "orthodoxy"—and his evolutionary belief that no valid advance remains for long the province of any unorthodox School—is in large measure a case for ideas that are now identified with the Austrians.[3]

My paper argues this position, but its scope is limited. It is far from a comprehensive study of either Marget's system, or Austrian economics, or pre-Keynesian monetary orthodoxy. Its case that Marget's work should be embraced by Austrians and identified as a contribution to their theory of money will rest on some observations about method, focusing on the methodologically individualistic analysis of temporal monetary processes and the role of aggregation.

"The ultimate goal of any Theory of Prices"—a phrase that Marget used interchangeably with "Theory of Money and Prices" to identify monetary theory—"is to explain why *realized* prices

are what they are" (1942, p. 222).[4] The focus on explanation rather than prediction, and on "prices" rather than "price" (level) or rate of interest or other aggregate, establishes common ground with the Austrians at the most fundamental level.

Marget's "*realized* prices" refers to the money or nominal prices of all goods that are exchanged for money. Like many other economists, he found it analytically convenient to separate this pattern into a structure of relative prices and level. His "Theory of Prices" included the influence of money on both, however, since he understood that no market process could determine structure and level independently. A strict methodological individualist, he insisted that "explanation" link observable events to the choices of individuals.

The Individualistic Analysis of Process

Most economists would probably agree that the ideal analysis of monetary change is to trace its sequential effects on particular individuals. This ideal method was introduced by Cantillon in 1755; one of its virtues is the absence of any "dichotomy" between monetary and value theory, since the latter provides the analytical link between each individual's new alternatives and his new behavior. But our inability to identify particular individuals and to be certain of their actions prevents us from attaining this ideal. To some extent "schools" can be identified according to how they accommodate these problems of incomplete information.

One accommodation is to argue that consideration of the details of the process can be dismissed because they are unpredictable, random, and "average out," with no measurable effect on empirical relationships among aggregates. Since the analysis of those individual choices is the province of value theory, this avenue is risky: It makes possible a dichotomy in which value and monetary theory are at best isolated and at worst contradictory. Dichotomization is the most serious criticism of a monetary theorist, so it must be levelled with caution.[5]

Neither Keynes nor the Austrians took this route. They analyzed the process differently, but neither undervalued its significance. Indeed, Marget recognized this virtue in Keynes. Citing two writers who are praised by Austrians—e.g., by Hayek ([1935] 1967, pp. 8, 10) and Mises ([1952] 1971, p. 139)—for this very reason, Marget identified "the emphasis in the *Treatise*"

as “a tribute. . . . to those writers, from Cantillon through Cairnes to writers of our own day, who . . . provided contributions to an understanding of the mechanism of price-change” (1938, p. 172). The fault that Marget found with Keynes’s application of the method was chiefly his imprudent aggregation (different, but equally imprudent, in the *Treatise* and the *General Theory*). When Keynes attempted to differentiate his products[6] by charging that his predecessors failed to recognize the importance of process, Marget sprang to their defense.

Marget’s use of the method of the individualistic analysis of process is most clear in his extended rebuttal, in *Prices II*, of Keynes’s charge that his predecessors dichotomized. In three chapters Marget (1942, pp. 221–403) examined the effects of money on ordinary Marshallian demand curves (“Particular Demand Curves and the Determination of Money Prices”), their role in mutually determining flows of money and flows of goods (“Stream Equations and the Price System”), and the significance of these flows in modern monetary dynamics (“Stream Equations and Process Analysis”). Later (ibid., pp. 521–624), he paralleled them with chapters on supply: “Elasticity of Supply and the Structure of Money Prices” and “Particular Supply Curves, Stream Equations, and the Determination of Money Prices.” He endeavored to show not only that the “value theory” of dynamic monetary processes had dominated pre-Keynesian theory but that its application of the method was superior to those offered by Keynes himself.

It is impossible to discuss sequential processes without introducing time. Ever since Menger ([1871] 1981, pp. 67–71 *et passim*) an emphasis on the significance of time has been considered one attribute of the Austrian School, but few if any of their works equal the treatment of time in Marget’s analysis of the monetary process. For a hint of the power and richness of Marget’s method of sequences, consider his classification of different types of period. They can be (1) clock-time or analytical-time, (2) *ex ante* or *ex post*, or (3) *ceteris paribus* or non-*ceteris-paribus*. There are eight possible combinations; Marget listed them all (1942, pp. 402–3 n. 122), complete with page references to preceding discussions. He noted that because the goal of monetary theory is the explanation of realized money prices, “the ‘periods’ . . . to which all the other types of ‘period’ must be related, are . . . *ex post* non-*ceteris-paribus* clock-time periods” (ibid., p. 403 n. 122).

Expectations inevitably affect currently realized money

prices, but these—in turn—"*help to determine expectations with respect to the future course of prices*" (ibid., p. 230 emphasis Marget's). Expectations must themselves be explained, Marget insisted:

> we must proceed upon the assumption that expectations are what they are largely as the result of experience of economic processes as they have been actually realized in the past and as they are being currently realized in the present. (1942, pp. 228–9)

The phrase "are what they are largely as the result of" accommodates a subjective perspective. It does not mean "are identical to," which would indicate a deterministic adaptive interpretation that some might find mathematically tempting. Marget's view is identical to that of Austrian writers who both preceded and succeeded him.[7]

Now that macrotheorists have discovered the electromagnetic property of hysteresis, it is interesting to note Marget's observation about the dependence of expectation upon knowledge acquired in the actual market process, and the resulting effects of those expectations on subsequent processes:

> When, therefore, it is said that "equilibrium" is "indeterminate" whenever "the final position is dependent upon the route followed," all that this can mean is that no account of the actual functioning of the economic process can be regarded as complete until it undertakes, *upon the basis of a study of the successive, actually realized steps in any economic process actually unfolding itself in time*, to establish the nature of the considerations likely to determine the nature of entrepreneurial responses to changes in the market situation, *including the possible changing nature of the goals whose attainment these responses are designed to aid*.[8]

Marget's analysis of the monetary process, with its sequential cause-and-effect relationship to expectations and—through them—to subsequent demands and supplies and, finally, to money prices and (if one wishes) to conventional monetary aggregates, is as sophisticated as any Austrian discussion of

monetary processes of which I am aware. Combining this analysis with his rich scheme for classifying periods produces a presentation that has yet to be equalled.

Underlying many analyses of process is the notion of a goal or target toward which the various actors are gradually moving the economic system. Modern Austrians continue to debate the usefulness of the concept of general equilibrium, and of Mises's evenly rotating economy in particular (see Fink and Cowen 1985). Their common ground, though, is sufficiently well known that Paque (1985) used it to differentiate an Austrian from a Chicago School approach. Marget's position on those interpretations of general equilibrium with which Austrians tend to agree, and the side that he would take in the debate, support my characterization of his theory of monetary processes.

Early in his career, Marget published two articles (1931, 1935) on the monetary economics of Leon Walras that are occasionally cited in today's literature, and he considered the mathematical formulation of general economic equilibrium immensely important among Walras's contributions. The concept of general equilibrium, Marget stated, "provides a description of one conceivable ('ideal') type of functioning economic system with which other types of functioning economic systems can be compared" (1942, p. 424), and in his analysis "full place is given to the possibility of using the *concept* of an equilibrium of the system as a standard of comparison" (ibid., p. 450). Mises accorded this role to his evenly rotating economy: "in order to analyze the problems of change in the data and of unevenly and irregularly varying movement, we must confront them with a fictitious state in which both are hypothetically eliminated" (1966, p. 247).

Although Mises identified "the tendency, prevailing in every action, toward the establishment of an evenly rotating economy" (ibid., p. 250), these actions take time during which knowledge and tastes must be presumed to change. He thus emphasized that the evenly rotating economy could never actually be approached. Marget shared this position:

> When, on the other hand, it is claimed that the concept of a state of general equilibrium is useful not only as a standard of *comparison*, but also as the specification of a goal which the economic system as a whole actually tends to approach, the cogency of the argument for the use of such a concept is

very greatly diminished. (1942, p. 446)

But Marget shared with Lachmann a more fundamental objection to general equilibrium. He acknowledged and accepted the tendency for adjustment to bring about *partial* equilibria in particular markets, while noting that the specific entrepreneurial actions chosen to effect them do not necessarily succeed (1942, p. 448). Even when they do, though, he claimed that these very actions "might have the effect of driving the system still further away from 'equilibrium'" (ibid., p. 447). Lachmann expressed the same point like this: "we can never be sure that the spill-over effects which an equilibrating adjustment in one market has on other markets will always be in an equilibrating direction . . . Equilibrium in one market may be upset when the repercussions of the equilibrating adjustments in other markets reach it" ([1952] 1971, pp. 190–1).

The essential difference that Marget perceived, between the probable partial-equilibrating tendencies in particular markets, and an improbable approach to a general equilibrium, is that which Hayek (1976, pp. 107–32) drew between *economy* and *catallaxy*.

> It is of the utmost importance to observe, however, that in the case of the concept of an "equilibrium of the *system*," there is *no agency, under institutions such as ours, which can be assumed to be engaged in a type of calculation, or to cherish a type of intention, involving the conditions for "general" economic equilibrium* in a sense comparable to that in which the calculations and intentions of individual entrepreneurs can be said to involve a consideration of the conditions for "equilibrium" within their own firms. (Marget 1942, pp. 448–9, emphasis Hayek's)

These problems of process "strengthen the case for refusing to regard as identical the concept of 'general economic *interdependence*,' on the one hand, and 'general economic *equilibrium*,' on the other" (1942, p. 423). In a manner wholly consistent with modern Austrian technique, Marget recognized the linkages among actions and prices but insisted that the vagaries of subjective interpretation demand the "loose joint" of general interdependence rather than the hyper-refined precision of general equilibrium.[9] Indeed, despite Marget's nod to its usefulness as some kind of standard, the concept of general

equilibrium seems to play no role in his system.[10]

Action in disequilibrium (general and partial) was important to Marget, so it seems unlikely that he would have accepted the "equilibrium always" interpretation of the new-Classicals. He objected, for example, to the "over-simplified propositions" that consumers' valuations are "reflected immediately and with unerring accuracy in the prices of producers' goods" (1938, p. 494). A few years later, Hayek (1945, p. 90) used the same example to demonstrate the profession's (specifically Schumpeter's) tendency to take for granted the market's solution of knowledge problems by unwarranted analogy to the actions of the individual, for whom a consistent set of knowledge and goals may be assumed. It was—as Hayek called it later—another failure to distinguish catallaxy from economy.

Although a thorough analysis of Marget's microeconomics must take place elsewhere, a part of it that is significant to our interpretation is his remarkable discussion of the role of "particular demand curves" in the determination of money prices (1942, pp. 241–63). His consideration of knowledge, time, and the microeconomic marketing process again illustrates an affinity with a method that is now associated with the Austrians.

In the third of his forty "Propositions" specifying the relationship of Value to Monetary Theory, he accepted that "any given realized price is what it is as the result of the conformation and position of the market demand curve and the market supply curve prevailing at the moment the price is realized" (ibid., p. 240). But he explained that these *market* demand and supply curves need not be the standard *ex ante* curves that we imagine to be formulated in the minds of the buyers and sellers prior to the start of the marketing process. If the knowledge of others' valuations that is acquired in the marketing process provokes a change in one's own valuations, these discoveries may change the supply and demand curves themselves, and a realized price and quantity (though necessarily characterizing the intersection of the curves that obtain at the moment of the exchange) need not lie on either the demand curve or the supply curve as these were conceived prior to the marketing process (1942, p. 222). "*[R]ealized* prices are not necessarily 'equilibrium' prices," he noted (ibid., p. 231; emphasis his), "if the concept of 'equilibrium' is to be given most of the connotations which it carries in the 'general' Theory of Value." Conventional *ex ante* curves play an indispensable explanatory role, he quickly assured us, but that role is not as simple as elementary presentations of

the Theory of Value make it appear (ibid., pp. 236–38).

Aggregation

It is easy to understand the appeal of macroeconomics, with its promise of simplicity and empirical manageability at the small cost of irrelevant detail. The Austrian criticism was never exclusively that the detail was interesting or important to a full understanding of economic processes: it was that the composition of the aggregates was important to the goals of the macroeconomists themselves. The effect of investment on current and future unemployment, for example, depends on both its amount (the aggregate of concern to macroeconomics) *and* composition—specifically, the likelihood that it conforms to the composition of future consumer demands.

What is the appropriate role for aggregates, one might wonder, to a writer as committed to the individualistic and temporal tracing of patterns of money flow as Marget obviously was? He issued many warnings against their incautious use. He insisted, for example, that "the *composition* of [the Fisherian] *T* . . . is particularly relevant for the role of *prices* in determining the absolute demand for cash balances" (1938, p. 210; emphases his). He understood, as do students of the Austrian theory of the business cycle, that "a process that deserves to be called 'inflationary' may take place under the cover of a 'stable' price level" (1937, p. 28; see also 1942, pp. 248–49 n. 43). And he warned that the use of Keynes's aggregate production function

> may prevent an adequate recognition of the importance of studying changes in the *structure* of output and employment which may be of the greatest importance for the explanation of movements in output "as a whole" or employment "as a whole" themselves. (1942, p. 537 n. 33)

In this advice Marget did not quarrel with the *goal* of explaining changes in aggregates, but argued that even for that goal it is not safe to rely on an analysis that largely restricts itself to aggregates.

It would be wrong to infer that Marget had no interest in aggregates. He himself cautioned against this misinterpretation:

> This does not mean, however, that a system such as that outlined in the present work implies a lack of

> interest in, or is incapable of dealing with, movements in *aggregates*. The possibility, stressed in earlier parts of this work, of *summing* the terms of the various "partial" stream equations into significant aggregates or sub-aggregates, proves the direct contrary. (1942, p. 437)

These are the two sides to Marget's view of aggregates, so it would clearly be too simplistic to identify him as either "for them or against them." To explore the relationship between his view and that of the Austrians, we must examine both judgments of aggregation in more detail.

One of the best-known warnings about the use of aggregates, and my own favorite, is Hayek's forceful statement in 1930:

> in the near future, monetary theory will not only reject the explanation in terms of a direct relation between money and the price level, but will even throw overboard the concept of a general price level and substitute for it investigations into the causes of the changes of relative prices and their effects on production. ([1935] 1967, p. 29)

By now it is apparent that Marget's evolutionary theory of the growth of knowledge produced an inherent conservatism in his theory of money. This alone would incline him against Hayek's revolutionary forecast; more importantly, though, he found that Hayek himself was unable to get along completely without the concept of the price level:

> [T]he most pertinacious critics of the concept of a "general" price level have been impelled to re-introduce, in one way or another, some analytical equivalent of the concept of a movement in the "general" level of prices. (1942, p. 332)

> [D]espite Professor Hayek's sharp attacks upon the usefulness of concepts, such as that of a "general" price level, which are alleged to imply an attempt "to establish causal relations between aggregates or general averages," he has found it necessary to speak, for example, of both the fact and the consequences of a "general fall of prices." (ibid., pp. 332–33)

Marget's point is likely to be admitted, reluctantly and with much sympathy for Hayek, by any Austrian who has attempted to discuss monetary matters without some concept of a "general" level of prices. Actually, though, an examination of the reasons that one might feel this reluctance finds Marget in substantial agreement with them.

The concept of a change in "the general level of prices" certainly *encourages* one to conceive, at least as an immediate impression, of equiproportionate changes in every individual money price. The Austrians are well known for insisting that such an impression is vacuous, and that even hypothetical means of monetary expansion that are designed to be uniform among individuals (whether Hume's, Mill's, or Friedman's) can never produce identical proportionate changes in each good's money price.

But an impression is not a logical implication, and a change in a "general level" does not *preclude* changes in the pattern. Marget had a couple of suggestions to guard against the unnecessary absurdity. First, he proposed the use of the term "*scale* of prices" or "*the scale of magnitude of money values*" (1942, p. 333; emphasis his) instead of a general price *level* (which, after all, suggests that individual prices are "level" or the same relative to each other). Second, Marget conceived of the general level of prices as a "swarm" of individual money prices. If one wished to gain an impression of general trends,

> [t]here is no logical reason why a picture of changes in the height of a given "swarm" could not be obtained by simply plotting the individual prices in such a "swarm," and then generalizing concerning the movements of the "swarm" on the basis of the picture of the movement of individual prices thus obtained. (1942, p. 333)

This "generalizing" is exactly the kind of casual, rough impression—something like looking at a scatter diagram from a distance or while squinting to deliberately blur the details—that is acceptable to Austrians.[11] It involves none of the methodological errors of which they warn, and the "precision" that it sacrifices is spurious and misleading anyway. "[I]t is possible to speak of a 'general' movement of prices," Marget assured us, "simply upon the basis of inspection of arrays of individual prices that remain uncombined into a single index figure" (ibid., p. 335).

Actually, the calculating of a precise numerical index through the assignment of specific weights was fully acceptable to Marget. Throughout his writings, he seemed unwilling to throw any analytical tool overboard. Time and time again, just when his sharp criticism had convinced the reader that an analytical device that had been misused and misconceived by predecessors was headed for the trash can, Marget backed off and suggested instead that the concept was acceptable if sufficiently "supplemented" by other analysis.[12]

He imposed two conditions on the use of a price index. First, most or many individual prices must in fact have changed by the average amount; he specifically rejected the use of a mean to measure price changes when the distribution was bimodal (with many prices changing more, many changing less, and perhaps not a single one changing by the average). The index must not, in other words, convey an inaccurate picture of the "swarm." Second, and more important, was his warning that "we carefully refrain from reading more into this single figure than is justified by an 'operational' view of the processes employed" (1942, p. 334). To explain the process by which an average changes, one must study the principles that determine its individual prices. "We are not warranted," Marget cautioned, "in assigning any 'reality' to the movements in this figure over and above the 'reality' which is represented by the individual price movements thus combined in the average" (ibid., p. 335).

This was Marget's advice against exactly the error that Hayek identified as establishing "causal relations between aggregates and averages" ([1935] 1967, p. 4). Even in those instances in which a precisely calculated numerical index accurately conveys the "general" movement of prices, an *explanation* of that move requires the explanation—according to the methodologically individualistic process described earlier in this paper—of the changes of the individual prices from which the average is computed. To Marget, and—in his judgment—to scores of preceding monetary theorists who recognized the significance of changes in relative prices, the disaggregated analysis of prices and production of which Hayek spoke constituted not (as Hayek implied) a *substitute* for an aggregate price level, but a *complement* to it.

Marget was sensitive to an important limitation to the use of aggregates that was significant, also, in the Austrian theory of monetary processes. This analytical restriction is that only realized, *ex post*, quantities can be summed.

If the purpose of economic theory is to explain realized and observed events in terms of the choices of the individuals whose actions bring them about, the relation of the *ex ante* to the *ex post* is the essence of economics itself. Quantifiable, observed magnitudes—like the amount of money spent on certain goods in a time period—can clearly be aggregated. But what about the plans, the intentions, the *ex ante* demands or supplies? If the conception of "planned" aggregates is illegitimate, macroeconomics becomes, at best, an *ex post* exercise of quantitative economic history, filling certain economic categories (such as "the price level" or "national income") with numerical specifics.

The reason for Marget's unwillingness to aggregate everything that can be found in microeconomics is grounded in the point, raised earlier by Hayek (1937; also, see below) and later by Lachmann (1958, p. 222), that except in general equilibrium *ex ante* quantities are based on inconsistent plans, expectations of others' behavior that are logically incapable of realization. He noted:

> It should be observed that since the "summation" involved applies to the summation of *realized* magnitudes, it is not open to the objections that have been raised to a mechanical summation of "expected" magnitudes (Marget 1942, p. 437 n. 69),

and later that

> realized results do represent a net, quantitatively measurable social resultant of "expectations," after all allowance has been made for the loose quantitative aspects of the expectations themselves, their essentially contingent nature, and their possible mutual inconsistency. (ibid., p. 503)

Because he perceived this problem, two popular aggregates held little appeal for him. He referred sarcastically to "that blessed dichotomy, 'Savings and Investment' . . . , which some of us will continue to avoid as if it were the plague" (Marget 1936, p. 566). Marget's skepticism about the significance of general equilibrium may explain part of this position. But it is also consistent with Hayek's (1933, 1934, 1935) discussions of the subjective and future-oriented nature of capital, saving, and investment.[13]

Marget knew that this criticism runs the risk of going too far, so it must be examined more closely. After all, in a sense every concept is an aggregate, in that it sweeps together individual elements with a particular common property and ignores their differences. He noted that "This is not to say, of course, that there are *no* circumstances under which it would be perfectly permissible to sum up *ex ante* values. The case of the 'total' demand schedule for a particular commodity proves an example to the contrary" (1942, pp. 503–4 n. 101). One wonders what principle differentiates this acceptable microeconomic *ex ante* aggregate from the dubious macroeconomic ones.

Even with the use of partial-equilibrium "particular demand curves" of microeconomics, he urged caution:

> Even here, however, the realistic validity of such a "total" demand schedule depends upon its being related in all cases to realized results; and since these results are in all cases "realized" through the actions of *individuals*, it would always be safer to approach the problem from the standpoint of the calculations and the probable reactions of these individuals, leaving for a next step an evaluation of the share contributed by the actions of individuals to the "total" realized result. (1942, p. 504 n. 101)

The only methodologically safe analysis, Marget advised, is that of the choices of individuals. With a wholly Austrian adherence to the principles of subjectivism and individualism, he warned that one forms even such aggregates as "the demand for widgets" only at some risk.

He was not very explicit about the relationship of his reluctance to accept macroeconomic *ex ante* aggregates with his acceptance of more modest microeconomic ones like the "market demand" for a particular good. I suspect that he may have accepted the latter as useful and coherent because the more narrowly a good is defined, the more likely it is that individual demanders can effect their demands for it without their very action exposing any contradictory expectations on which their individual demands may have been based. If we were to conceive of an aggregate good consisting of widgets and a gradually increasing number of other goods, however, it becomes increasingly likely that individuals' demands for one component of the aggregate are inconsistent with their demands for other components of the same aggregate. The more narrowly a

particular commodity is defined, or—perhaps more accurately—the fewer individuals who are included, the less likely it is that the problems of logical inconsistency lie interior to the concepts of its demand and supply.

This problem with multi-individual *ex ante* aggregates is that they constitute another application to the *catallaxy* of analytical devices truly appropriate only to *economy*. Although it surely may be identified with the works of Hayek (from the '30s to the '70s), it is perhaps again Lachmann who—among the Austrians—has expressed a position most like that of Marget. "We must not forget," Lachmann wrote in 1973,

> that whenever we pass from the sphere of action controlled by one mind, in household or firm, to the sphere of action in which diverse minds have to take their orientation from one another while each is pursuing its own interests, as in a market, we face a formidable array of problems of the existence of which all too many economists seem blissfully unaware, (Lachmann 1973, pp. 15–16),

and in 1977:

> Equilibrium of the individual, household, or firm, as an expression of consistent action, is indeed an indispensable tool of analysis. Equilibrium involving action planned by different minds involves altogether new problems. Equilibrium on a simple market, such as a Marshallian corn market, still has its uses. "Equilibrium of an industry" is already harder to handle. (Lachmann 1977, p. 37)

Lachmann's general perspective on aggregates, expressed over a span of many years, is also fully in keeping with Marget's. Referring in 1978 to "macroeconomic aggregates," he noted that "Austrian aversion does not pertain to these aggregates as such. . . . It pertains to the construction of an economic model in which these aggregates move, undergo change, and influence each other in accordance with laws which are devoid of any visible reference to individual choice" (1978, pp. 8–9). While the quest for "micro foundations" has not been, for at least several decades, the exclusive property of Austrians, Lachmann insisted that such a micro foundation be properly subjectivist.[14]

Although Marget defended the use of aggregates in

monetary analysis, and gently rapped Hayek's knuckles for suggesting that we could get along just fine without them, a careful examination of Marget's position uncovers a virtual identity with the Austrian viewpoint. "In fact, neither aggregates nor averages do act upon one another, and it will never be possible to establish necessary connections of cause and effect between them . . .," said Hayek ([1935] 1967, pp. 4–5) in 1930. Marget's insistence that aggregates be composed only of *ex post* data, changes in which must be explained according to methodologically individualistic analyses of effects on particular markets in temporal sequence, thoroughly precludes the simple kind of direct causal connection of which Hayek warned.

On the issue of doctrinal history, Marget might have challenged the Austrians. For he was convinced that, whatever shortcomings characterized the early stages of an evolving theory, there never had been a significant period (in the pre-Keynesian, pre-monetarist era, of course) in which monetary theorists had not sought individualistic, process, explanations of relationships between measurable aggregates.[15]

Conclusions

Exactly how Marget might have reacted to this interpretation of his work is a matter of some concern to me. Around 1940, he considered himself simply an expositor of (pre-Keynesian) orthodoxy, reminding those who had lost their way of its sophistication and urging that they return to its "highroad," and he would hardly have accepted a specific Austrian affiliation.[16] He probably would not have accepted it now, so I have tried not to thrust it upon him. But perhaps he would have agreed that—because of the very changes that he feared—some of the most important characteristics of the "orthodoxy" that he supported have come to be identified particularly with the Austrian School.

This paper has examined only two related characteristics of Marget's work: his advocacy of the method of the individualistic analysis of monetary processes, and his position on aggregation. Precisely because they are broad issues of method, however, the specific topics that I have chosen provide clues to Marget's position on a wide array of subjects not discussed here. As one might expect, an examination of his work on the theories of interest, capital, the business cycle, and economic policy usually —perhaps not always—illustrates the consistent application of a

subjectivist methodological individualism.

Although some Austrians have taken notice of Marget (Hayek (1978, p. 75), Hutt (1963, p. 89)), others may have been misled by the same "defender of orthodoxy" label that caused the Keynesian anti-orthodoxy to ignore *The Theory of Prices*. In particular, Marget identified pre-Keynesian theory with the "Quantity Equation" (the transactions form of the *ex post* identity). One consequence is that he is known today primarily as a "historian of the Quantity Theory,"[17] a label that—as my paper suggests—hardly does justice to his work.[18] But his association with the "Quantity Equation" may also explain the rather lukewarm welcome of his work by the Austrians. Despite Mises's comment that "one may call the modern theory of money an improved variety of the quantity theory" (1966, p. 405), there remains suspicion that the very adjective "quantity" denotes a belief in direct causal connections among averages and aggregates that is inconsistent with methodological individualism and subjectivism (Hayek ([1935] 1967, p. 3), Rothbard (1970, pp. 727–37)).

Whether or not such a characterization is fair even to Fisher (to whom it was specifically directed), it clearly has nothing to do with Marget. After all, Marget's deep conviction in, and spirited argument for, the Quantity Equation's system of conceptual organization arose precisely because it was capable of the disaggregated, individualistic, and subjective analysis of temporal process that has always identified the Austrian method.

Labels aside, Marget's work offers scholarship in the history of monetary doctrine that is unmatched, and an analysis of processes that is in some respects unmatched, in explicitly Austrian works. "Prolixity" or not, it deserves to be recognized as an exciting and significant contribution to the tradition of the methodologically individualistic analysis of monetary processes.

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[1] Henry Hazlitt (1959, p. 437), clearly an enthusiast, wrote: "And not even the shortest 'anti-Keynesian' bibliography should omit Arthur W. Marget's monumental study, *The Theory of Prices* (2 vols., 1,426 pages). This work is distinguished both for its penetrating comment and for the immense range of its scholarship, but its relentless prolixity and disheartening length have caused it to miss the influence it might otherwise have had." Less understanding and charitable is Mark Skousen (1992, p. 34 n. 3) who informs us that his "search was in vain" for "something of value in this detailed work"—a work he also calls "ramshackle."

[2] Marget's response (1942, p. vii): "I, on the contrary, rest my case on the proposition that if the qualities of 'exactitude,'

‘solidity,’ and ‘exhaustive scholarship’ are indeed characteristic only of a ‘bygone age,’ that fact constitutes a condemnation of our own age and a commentary on our current needs.”

[3] Another arguable Austrian link is a complementarity between *The Theory of Prices* and Hayek’s *The Pure Theory of Capital* (1941). Convinced that the errors of the 1930s arose from capital theory, Hayek wrote of capital without money and planned a sequel to complete the story. Marget, on the other hand, attributed Keynes’s popularity to a misunderstanding of monetary theory; his work is of money without capital, a deficiency he intended to correct (Marget 1942, pp. xvi–xvii) with *Money and Interest* and *Money and Production*. Neither returned to his ambitious plan after the War, so a comparison of *Money and Production* with Hayek’s integration of money and capital must remain a fascinating exercise in double speculation.

[4] Since I have not found the phrase “Theory of Prices” in his earlier works, its origin is undoubtedly chapter 18 of Keynes’s *General Theory*, of which it is the title.

[5] Patinkin (1965, p. 175, pp. 624–25) in fact accused Marget of dichotomizing. It would not be unreasonable to draw this conclusion from a few of Marget’s comments if they are taken out of context, but the accusation is not valid and serves mostly to illustrate how difficult it is to avoid the appearance of dichotomization.

[6] In the *Treatise*, Keynes stated that “The forms of the Quantity Theory, however, on which we have all been brought up . . . are but ill adapted” for the analysis of a dynamic “causal process” because they are “identities or statical equations” (1930, p. 133). In the *General Theory*, he asserted that there is (in his predecessors) “a false division” between “the Theory of Value and Distribution on the one hand and the Theory of Money on the other hand,” (1936, p. 293).

[7] See, in particular, Lachmann (1943), who approvingly quotes Lundberg: “‘It is sensible to link actions with expectations,’ states Dr. Lundberg, ‘only if the latter can be explained on the basis of past and present economic events. Total lack of correlation here would mean the complete liquidation of economics as a science’,” (ibid., 1943, p. 66). Marget had quoted Lundberg’s statement, too (Marget 1942, p. 228). (Lachmann later abandoned his 1943 view, asserting that because expectations arise from the subjective interpretation of “past and present economic events,” they must be treated as “autonomous” [Lachmann 1976, p. 129]. [I thank a referee for reminding me of

this.] Lachmann's later views are embraced by those who consider *hermeneutics* a promising Austrian research program, but to others they do indeed "mean the complete liquidation of economics as a science.")

[8] Marget's (1942, p. 233 n. 34) quotes are from Nicholas Kaldor, "A Classificatory Note on the Determinateness of Equilibrium," *Review of Economic Studies* 1 (1934), pp. 125ff, 132ff.

[9] Although Marget never used the phrase, others have used the "loose joint" metaphor to describe what money does to relationships among real variables. See Garrison (1982, p. 134; 1985, pp. 202–3), who identified it as significantly differentiating Austrian macroeconomics from its modern (tight-joint and no-joint) alternatives, and Hayek (1941, pp. 408–10). As Hayek (ibid., p. 408) put it, "money by its very nature constitutes a kind of loose joint in the self-equilibrating apparatus of the price mechanism."

[10] This is a strong contention, especially since Marget nodded to general equilibrium as "a standard of comparison." But I can recall in Marget's work no significant use of this standard. For example, his treatment of "the natural rate of interest" is sharply distinct from a real general-equilibrium conception relating saving to investment (1938, pp. 197–205).

[11] Both Menger and Mises used "general purchasing power of money" in precisely this way, as a referee observed.

[12] After encountering a number of such instances in Marget's work, one begins in frustration to wonder if he might have tolerated the hemline theory of stocks (prices vary inversely with the length of women's skirts), as long as it was "supplemented and analytically controlled" by some theory involving the discounted value of expected future dividends.

[13] Typically, though, Marget allowed that "Saving and Investment, the 'multiplier,' and even 'income velocity' . . . may be salvaged if their use is accompanied by more nearly microeconomic analysis" (1942, p. 504). Unfortunately, he noted, their sponsors seemed to believe that the concepts render this "microeconomic analysis" superfluous.

[14] For a fine statement, inspired by Hayek's *Prices and Production*, of an Austrian position on "averages and aggregates in economics," see Spadaro (1956).

[15] For an argument that Marget misinterpreted classical monetary theory, see Mason (1976). "In short, Marget's virtual denial of dichotomy in classical and neoclassical theory is really

irrelevant to the issue because his ‘resolution’ was terminological, not substantive” (ibid., p. 194).

[16] Another writer who, while welcoming association with the Austrians, always insisted that his own work was exposition of pre-Keynesian orthodoxy, was W. H. Hutt. See Hutt 1963 (p. vii), Hutt 1974 (p. 1–2), and Egger (1994).

[17] A survey of the books that happened to be in my office as of this writing turned up eight with citations of Marget as historian of the “quantity theory.” One of the most complimentary references is that of Humphrey (1973, p. 462): “it is ironic that the definitive history of the quantity theory was written by Marget at Minnesota rather than by someone at Chicago.”

[18] *Prices* is considerably more than a history of the “Quantity Theory,” but it is far from an exhaustive theory of money. As Gilbert (1953, p. 154) notes, “Marget, in his two lengthy volumes, fails to deal satisfactorily with the fundamental reasons for holding money . . . [He] merely gives special cases of the time factor with some references to uncertainty through anticipations. The uncertainty factor as an independent element is not analyzed.”

A Critical Analysis of Central Banks and Fractional-Reserve Free Banking from the Austrian School Perspective

Jesús Huerta de Soto

The theory of money, bank credit, and financial markets constitutes the most important theoretical challenge for economic science on the threshold of the twenty-first century. In fact, it is no exaggeration to say that, now that the "theoretical gap" represented by the analysis of socialism has been covered, perhaps the least known and, moreover, most significant field is the monetary one. As Friedrich A. Hayek has rightly stated,[1] methodological errors, lack of theoretical knowledge and, as a result thereof, systematic coercion originating from the government prevail throughout this area. The fact is that social relations in which money is involved are by far the most abstract and difficult to understand, meaning that the social knowledge generated and implied thereby is the broadest, most complex and hardest to define. This explains why the systematic coercion practiced by governments and central banks in this field is by far the most damaging and prejudicial. Moreover, this intellectual lag in monetary and banking theory has had serious effects on the evolution of the world economy. At present, in spite of all the sacrifices made to reorganize the western economies after the crisis of the 1970s, the same errors of lack of financial and monetary control have unfailingly been committed, inexorably leading to the appearance of a new worldwide economic recession of considerable magnitude.

The fact that the recent monetary and financial abuses mainly originated in the second part of the decade of the 1980s in the policies applied by the supposedly conservative-libertarian administrations of the United States and United Kingdom, dramatizes even more the importance of making theoretical advances in order to avoid, even in the libertarian field, political leaders such as Ronald Reagan and Margaret Thatcher committing the same errors. It is important to make such leaders

capable of clearly identifying the only monetary and banking system truly compatible with a free society. In short, it is necessary to develop an entire research program aimed at conceiving what the monetary and banking system of a non-interventionist society should be—a system which it is evident that many libertarians do not see at all clearly.

In the present article, we propose a new approach to the analysis of the problems of monetary and banking theory. We aim to provoke a renewal of the intellectual debate over some aspects of the doctrinal controversy between the advocates of free banking and those who defend central banking, particularly why the institution of central banking may not be a spontaneous and evolutionary result arising from the market. We also hope to throw some light on many specific problems of economic policy of great current importance, in particular the future evolution of the European monetary system.

The Debate Between the Theorists of Free Banking and Central Banking

Beginning with the doctrinal controversy between the supporters of central banking and those who favor free banking, it is first necessary to state that our analysis does not entirely coincide with the nineteenth century controversy between the theorists of the banking and currency schools. In fact, many of those who defended free banking based their reasons on the fallacious and defective inflationist arguments of the banking school, while the majority of the currency school theorists aimed to attain their objectives of financial solvency and economic stability by the creation of a central bank to put a stop to monetary abuses.

From the beginning, however, some reputable currency school theorists considered it impossible and utopian to think that a central bank would not make the problems even worse. They were aware that the best way of putting a stop to the creation of fiduciary media, and to achieve monetary stability was through a free banking system subject, like all other economic agents, to the traditional principles of civil and mercantile law. In addition, paradoxically, the majority of those who defended the tenets of the banking school were, in the end, pleased to accept the establishment of a central bank that, as last resort lender, guaranteed and perpetuated the expansionist privileges of private banking. The privileged bankers tried, in this way, to evade their commitments and devote themselves to

the lucrative “business” of creating fiduciary money through the expansion of credit, without having to worry excessively about liquidity problems, thanks to the support implied by the establishment of a central bank.

It is important to emphasize the fact that most of the currency school theorists, even though the heart of their theoretical contributions was correct, were incapable of appreciating that the same defects they rightly attributed to the freedom of the banks to issue fiduciary money in the form of notes, were fully and identically reproduced, though in a more hidden, and therefore, dangerous way, in the “business” of expansively granting credits against the banks’ demand deposits. And, moreover, these theorists erred in proposing, as a more appropriate policy, the establishment of legislation which would merely put an end to the freedom to issue notes without backing and create a central bank to defend the most solvent monetary principles.

Only Ludwig von Mises, following the tradition of Cernuschi, Hübner and Michaelis, was capable of realizing that the currency school theorists’ recommendation for a central bank was erroneous and that the best and only way of achieving the credible monetary principles of the school was through a free banking system subject, without any privileges, to private law. This failure on the part of the majority of the currency school theorists was fatal. It not only led to the fact that Peel’s Act of 1844, in spite of its good intentions and its elimination of the free issue of bank notes, did not eliminate the creation of fiduciary credit. Instead, Peel’s Act in effect led to the creation of a central banking system which, subsequently and above all due to the influence of banking school theorists like Marshall and Keynes, was used to justify and promote policies containing a lack of monetary control and financial abuses much worse than those it was originally intended to remedy.

The Evolution of the Banking System and the Central Bank

The central bank is not a natural product of the development of the banking system.[2] On the contrary, it is coercively imposed from outside the market as a result of governmental action. Such action, as a consequence of a series of historical accidents, gave rise to a monetary and financial system very different from that which would have emerged spontaneously under a free banking

system subject, without privileges, to private law and not coerced by government through the central bank. It is impossible to know what knowledge and institutions the banking entrepreneurs would have created freely if they had been subject to the general principles of law and not to any kind of state coercion.[3] Yet we may imagine a generalized system of investment funds in which current "deposits" would be invested, and endowed with great liquidity, but without a guarantee of receiving the face value (which would be subject to evolution of the market value of the corresponding units); a network of entities providing payment and accounting services, etc., operating in free competition and charging fees for their services; and, separately, *without any connection with credit*, a series of private institutions devoted to the extraction, design and offer of different types of private money (also charging a small margin for their services).[4]

In fact, the current central banking system is merely the logical and inevitable result of the gradual and surreptitious introduction by private bankers, historically in complicity with the governments, of a banking system based on a fractional reserve. And it is here essential not to fall into the same intellectual trap as the majority of the theorists who have defended the free banking system. With the honorable exception of Mises and very few others,[5] they do not realize that the only way to achieve a truly free banking system is to reestablish the legal principle according to which it is necessary to keep a reserve of 100 percent of the sums of money received as demand deposits.

In the final analysis, the question is the application in the monetary and banking field of Hayek's seminal idea according to which, whenever a traditional rule of conduct is violated, either through institutional coercion on the part of the government or by the latter's granting special privileges to certain persons or entities, damaging and undesired consequences will, sooner or later, appear, seriously prejudicing the spontaneous social process of cooperation.

The traditional rule of conduct violated in the case of the banking business is the principle of law according to which, in the contract for the deposit of fungible money (also called *irregular deposit*), the traditional obligation of *custody*, which is the essential element of all non-fungible deposits, requires that, at all times, a reserve of one hundred percent of the amount of fungible money received in deposit be maintained. This means

that all acts which make use of that money, specifically the granting of credits against it, are a violation of that principle and, in short, an illegitimate act of undue appropriation.

In the continental European juridical tradition, there is a long-established principle that dates back to the old Roman Law according to which *custody, in irregular deposits, consists precisely of the obligation to always have an amount equal to that received at the depositor's disposal*. The custodian of a deposit must "have always available a quantity and quality equal to that received of certain things," regardless of whether they are continually renewed or substituted. This requirement is the equivalent, for fungible goods like money, of the continued existence of the item *in individuo* for infungible goods.[6] This general legal principle which requires one hundred percent reserve banking has been upheld, even in this century, by French and Spanish jurisprudence.

A ruling of the Court of Paris of June 12, 1927 condemned a banker for the offense of undue appropriation because he had used, in accordance with common banking practice, the funds which he had received in deposit from his clients. Another decision of the same Court dated January 4, 1934 made the same ruling, and even more curious was the ruling of the Court of First Level which heard the case of the bankruptcy of the Bank of Barcelona, according to which the depositor's power to draw checks implies for the depositee the obligation to *always* have funds at the disposal of the current account holder, making it unacceptable that a bank consider the funds deposited in a current account in cash as belonging exclusively to itself.[7] We should add that the "undue appropriation" arises when the undue act (lending the amount deposited) is committed, and not when it is discovered a long time afterwards (generally by the depositor at the counter of a bank which cannot return his money to him). Moreover, the trite argument that the "law of large numbers" allows the banks to act safely with a fractional reserve cannot be accepted, since the degree of probability of an untypical withdrawal of deposits is not, in view of its own nature, an insurable risk.

The Austrian theory of economic cycles has perfectly explained how the system of fractional reserve banking itself generates economic recessions *endogenously* and recurrently and, hence, the need to liquidate wrongly induced investment projects, to return bad loans and withdraw deposits on a massive scale. And, as all insurance theorists know, the consequences of

an event (untypical withdrawal of deposits) which is not totally independent of the "insurance" itself (fractional reserve) are not technically insurable, for reasons of *moral hazard*.[8]

In the course of history, bankers were soon tempted to violate the above-mentioned rule of conduct, using the money of their depositors to their own benefit.[9] This happened shamefacedly and secretly at first, since the bankers were still conscious of acting incorrectly. It occurred, for example, with the Bank of Amsterdam, when the activities of the bank were carried out, for the reasons mentioned, according to the words of Sir James Steuart, with the *maximum secrecy*.[10] It should be noted that the entire prestige of the Bank of Amsterdam was based on the belief that it held a reserve of one hundred percent, a principle which, only fifteen years previously, David Hume believed to be in force.[11] And in 1776, Adam Smith mentioned that, at that time, the Bank of Amsterdam *continued to say* that it held a cash ratio of one hundred percent.[12]

Only later did the bankers achieve the open and legal violation of the traditional legal principle, when they were fortunate enough to obtain from the government the *privilege* of using part of the money of their depositors to their own benefit (generally in the form of credits, often granted initially to the government itself). In this way the relationship of complicity and the coalition of interests which now traditionally exists between governments and banks commenced, explaining perfectly the relationship of intimate "comprehension" and "cooperation" which exist between both types of institutions and which, nowadays, may be observed, with slight differences of nuance, in all western countries at all levels. Furthermore, the bankers soon realized that the violation of the traditional legal principle mentioned above gave rise to financial activity which was highly lucrative for them, but which always required the existence of a last resort lender, or central bank, to provide the necessary liquidity at the difficult moments which, as experience demonstrated, always recurred.[13]

The Fractional Reserve Banking System: The Central Bank and the Theory of Economic Cycles

The inauspicious social consequences of this *privilege* granted to the bankers (but not to any other individual or entity) were not completely understood until the development, by Mises and

Hayek, of the Austrian theory of economic cycles.[14] In short, what the Austrian School theorists have shown is that persistence in pursuing the theoretically impossible objective—from the legal-contractual and technical-economic viewpoints—of offering a contract that simultaneously tries to combine the best features of investment funds—especially the possibility of obtaining interest on the "deposits"—with the traditional deposit contract —which, by definition, must permit withdrawal of its face value at any moment—must inexorably, sooner or later, lead to uncontrolled expansion in the monetary supply, inflation, and the generalized incorrect allocation of productive resources at a microeconomic level. In the final analysis, the result will be recession, the rectification of errors induced in the productive structure by prior credit expansion and massive unemployment.

It is necessary to realize that the privilege granted to the banks permitting them to carry on activity with a fractional reserve, implies an evident attack against a correct definition and defense of the property rights of the depositors by the governmental authorities. This inevitably generates, as is always the case when property rights are not appropriately defined, the typical effect of "tragedy of the commons," by virtue of which the banks are inclined to try to get ahead and expand their corresponding credit base before, and more than, their competitors. Therefore, a banking system based on a fractional reserve will always tend towards a more or less uncontrolled expansion, even if it is controlled by a central bank which, in contrast to what has normally been the case, is seriously concerned about controlling it and establishing limits. In this respect, Anna J. Schwartz reaches the conclusion that many modern theorists of the free banking system do not completely understand: that the system of interbank clearing houses which they propose does not act as a brake on credit expansion if all the banks decide to expand their credit simultaneously, to a greater or lesser extent.[15] This phenomenon, which had already been set out by Ludwig von Mises in his brilliant explanation of the free banking system,[16] drove us to seek its explanation in the typical process of the "tragedy of the commons": the entire expansive process originates, as we have seen, from a *privilege* that contravenes property rights. Each bank internalizes all the profits obtained from expanding its credit, making the corresponding costs fall, dilutedly, upon the entire banking system. For this reason, it is easy to understand that a mechanism of inter-bank compensation or clearing houses may

put a stop to individual, isolated expansion initiatives in a free banking system with fractional reserves, but is useless if all the banks, to a greater or lesser extent, are carried away by "optimism" in the granting of credits.

The proposal to establish a banking system with a one hundred percent reserve was already included in the first edition of *The Theory of Money and Credit* published by Mises in 1912, in which the author reached the conclusion that "it is obvious that the only way of eliminating human influence on the credit system is to suppress all further issue of fiduciary media. The basic conception of Peel's Act ought to be restated and more completely implemented than it was in the England of his time by including the issue of credit in the form of bank balances within the legislative prohibition."[17] Subsequently, Mises again dealt with the matter even more explicitly in 1928[18] and especially in the appendix on *Monetary Reconstruction* which he incorporated into the English edition of *The Theory of Money and Credit* in 1953, where he expressly states that "the main thing is that the government should no longer be in a position to increase the quantity of money in circulation and the amount of checkbook money not fully—that is, one hundred percent—covered by deposits paid in by the public."[19] Hayek already referred to this proposal in 1937[20] and it is evident that Hayek, like Mises, proposes the free choice of currency and banking system as a means to achieve, in the final analysis, a banking system based on a one-hundred-percent-cash-ratio.[21] After Mises, the writer who has, in modern times, defended the elimination of the banking system as we know it today with the greatest determination and brilliance is, without doubt, Murray N. Rothbard.[22]

Also in modern times, Maurice Allais has defended the principle of the one hundred percent reserve, although it is true that he defends it as a means to facilitate the monetary policies of governments, preventing their elastic and distortive expansion through the fractional reserve banking system.[23] Maurice Allais, in this respect, merely follows the now abandoned Chicago School tradition in favor of the one-hundred-percent-cash-ratio in order to make the monetary policies of the governments more effective and predictable.[24] Although monetary policy would be more predictable with a one-hundred-percent-cash-ratio, all the Chicago theorists are ingenuous if they think that the government can and will want to carry out a stable monetary policy. This ingenuousness is parallel and similar to

that shown by the modern fractional reserve free banking theorists, when they trust that spontaneous clearing house mechanisms can put a brake on a simultaneous and agreed upon expansion by a majority of banks. *The only correct solution for a society free of privileges and economic cycles is, therefore, banking which is free but subject to the law, i.e., with a reserve ratio of one hundred percent.*

The Monetary and Banking System in a Free Society

In short, the main defect of the majority of the theorists who defend free banking is their failure to realize that the demand for a one hundred percent reserve requirement is theoretically inseparable from their proposal. Specifically, they have not appreciated that all the defects which advocates of the central bank see in the free banking system lose their potential and completely disappear if it is put into practice on the basis of traditional legal principles. Or, to put it another way, using Mises's words, the issue is to subject the banks to the traditional principles of civil and mercantile law, according to which each individual and each enterprise must meet its obligations in strict accordance with what is literally established in each contract. [25]

This error is very generalized and affects, in particular, the interesting and broad literature which has been developed as a result of the great echo arising from the publication of Hayek's book on the *Denationalization of Money*, together with the important economic and financial crisis which took place at the end of the 1970s. The most important comment I have on all this literature is that, apart from a few exceptions, it uses the defense of a free banking system to put forward whims typical of the old "banking school," the erroneous principles of which were demonstrated long ago. Moreover, all this literature, which is headed by the works of White, Selgin and Dowd,[26] among others, forgets that, as we have argued, the only way of getting rid of the central bank and its excesses is by eliminating the fractional reserve privilege which private bankers currently exploit.

If one wishes to defend a truly stable financial and monetary system for the next century, one which immunizes our economies against crises and recessions as much as is humanly possible, it will be necessary to establish three conditions: (1) complete freedom of choice of currency; (2) a free banking system; and (3)

most importantly, all the agents involved in the free banking system are subject to and follow, in general, traditional legal rules and principles. In particular, the principle according to which nobody, not even the bankers, should enjoy the privilege of lending something which has been deposited with him as a demand deposit (i.e., to maintain a banking system with a reserve of one hundred percent).

The modern free banking theorists erroneously consider (due, among other things, to their lack of a juridical background), that the one hundred percent reserve requirement would be an inadmissible *administrative* interference with individual freedom. They do not realize that, far from implying systematic administrative coercion by the government, as we have seen, this precept is merely the application of the traditional principle of *property rights*. In other words, they do not realize that the famous anonymous phrase of an American quoted by Tooke, according to which "free banking is equivalent to free swindling"[27] is applicable to free banking not subject to law (and which, therefore has, fractional reserves). In the final analysis, the defense of free banking must be made, not as a means to exploit the lucrative possibilities of credit expansion, but as an *indirect* means to get closer to the ideal model of free banking with a one hundred percent reserve requirement which, additionally, must be *directly* pursued by all the legal means available in each historical circumstance.[28]

Although the foregoing economic policy recommendations may appear *utopian* and very distant from the practical problems we have to deal with, especially with regard to the design and management of a European monetary system, they indicate, at all times, at least the appropriate direction which reform should take and dangers that must be avoided. Thus, it seems clear that we should reject both a system of monopolistic national currencies which compete among themselves in a chaotic environment of flexible exchange rates, as well as the move towards the creation of a central European bank.

This proposed central European bank would prevent the competition among currencies over a wide economic area, would not confront the challenges of banking reform, would not guarantee a monetary stability which is at least as great as that of the most stable national currency at each moment and would set up, in short, a definitive obstacle to making subsequent reforms in the right direction.

Perhaps the most practicable and appropriate model in the

short and medium terms is, therefore, to introduce throughout Europe the complete freedom of choice of public and private currencies inside and outside the Community, linking the national currencies which, for reasons of historical tradition continue in use, to a system of fixed exchange rates. These rates would discipline the monetary policy of each country in accordance with the policy of that country which, at each historical moment, is carrying out the most solvent and stable monetary policy. In this way, at least the door would remain open for some nation-state of the EEC to have the possibility of advancing along the three lines of monetary and banking reform indicated above,[29] forcing its partners in the Community to follow its monetary leadership along the right lines. (This, and nothing else, appears to have been the essence of the project defended by Margaret Thatcher and the incorrectly named group of "Eurosceptics" who follow her, among whom this author is included, for the monetary future of the EEC.)

It is evident that the definitive work on monetary and banking theory, in the light of the historic controversy taking place between those who favor free banking and those who support a central bank, has not yet been written. Therefore, we are afraid that it is not unrealistic to think that the world will continue to suffer recurrently, very dangerous economic recessions as long as the central banks maintain their monopoly on currency issue, while the privilege granted to the bankers by the governments is not abolished. And, in the same way as we began this article, we would dare to say that, after the historic, theoretical and actual fall of socialism, the main theoretical challenge faced by both professional economists and lovers of freedom well into the next century will consist of fighting with all their strength against both the institution of central banking and the maintenance of the privilege currently enjoyed by those who practice private banking activities.

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as to two anonymous referees, for their detailed and constructive remarks.

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[1] F. A. Hayek, *The Fatal Conceit: The Errors of Socialism* (Chicago: University of Chicago Press, 1989), pp. 102–4.

[2] Vera C. Smith, *The Rationale of Central Banking and the Free Banking Alternative* (Indianapolis,, Ind.: Liberty Press, 1990), chap. 12, p. 169.

[3] Israel M. Kirzner, *Discovery and the Capitalist Process* (Chicago: University of Chicago, 1985), p. 168.

[4] F. A. Hayek, *Denationalization of Money: The Argument Refined*, 2nd ed. (London: Institute of Economic Affairs, 1978), pp. 119–20. Hayek concludes, "I expect that it will soon be discovered that the business of creating money does not go along well with the control of large investment portfolios or even control of large parts of industry." I am afraid, however, that Hayek gives insufficient recognition of the fact—central to Mises's theory of money—that free market money must be a *commodity* money, and that competing kinds of money are dysfunctional of the very purpose of a medium of exchange, as the free market always generates a tendency of the convergence toward *one*, universally employed commodity money.

[5] Before Mises, the most distinguished author who defended the one hundred percent reserve requirement was David Hume in his essay "Of Money" (1752), where he states that "no bank could be more advantageous, than such a one as locked up all the money it received, and never augmented the circulating coin, as is usual, by returning part of its treasure into commerce." David Hume, *Essays: Moral Political and Literary* (Indianapolis, Ind.: Liberty*Classics*, 1985), pp. 284–85.

[6] On juridical considerations of the traditional legal principle in question, see not only all Title 3, Book 16 of the Digest, especially sections 7 and 8 on the bankruptcy of bankers (*El Digesto de Justiniano* 1 [1968]: 606–17, esp. 112, [Spanish edition published by Aranzadi, Pamplona]), but also the fine argument by the Spanish Jesuit Luis de Molina, for whom the banker with a fractional reserve "*sins* by endangering his own capacity to meet his debts, even if in the long run he suffers no legal difficulties because his speculations with the clients' funds turned out well" (quoted from *De lustitia et lure*, Maguntiae [1614], in Alejandro Chafuen, *Christians for Freedom: Late*

Scholastic Economics [San Francisco: Ignatius Press, 1986], p. 146 n. 1–7). See also the refined conclusions of Pasquale Coppa-Zuccari included in his definitive work *Il Deposito Irregolare* (Modena 1901), quoted by, among others, Joaquin Garrigues in his *Contratos Bancarios*, 2nd ed. (Madrid, 1975), p. 365. All these considerations are also applicable to so-called financial operations with repurchase agreements at any moment and at face value (and not at a fluctuating secondary market price), since they disguise, by fraudulently using the law for a purpose for which it was not intended, what are really deposit contracts.

[7] Ibid., pp. 367–68.

[8] With regard to the class probability (objective), which is insurable, and the single event probability, influenced and determined by human action (not insurable), see Ludwig von Mises, *Human Action: A Treatise on Economics*, 3rd rev. ed. (Chicago: Henry Regnery, 1966), pp. 106–15; and also Jesus Huerta de Soto, *Socialismo, Cálculo Económico y Función Empresarial* (Madrid: Union Editorial, 1992), pp. 46–48.

[9] The temptation was enormous and almost irresistible, given how lucrative it was. We must remember that, in the final analysis, the system of fractional reserve banking consists of creating loans from nothing and requiring that the borrowers return them in real money and with interest, too!

[10] Sir James Steuart, *An Inquiry into the Principles of Political Economy: Being an Essay on the Science of Domestic Policy in Free Nations* (London: A. Millar and T. Caddell in the Strand, 1767), vol. 2, p. 301.

[11] David Hume, “On Money,” p. 284.

[12] “The Bank of Amsterdam professes to lend out no part of what is deposited with it, but for every gilder which it gives credit in its books, to keep in its repositories the value of a gilder, either in money or bullion” (Adam Smith, *The Wealth of Nations* [London: W. Strahan and T. Caddell in the Strand, 1776], vol. 2, bk. 4, chap. 3, p. 72).

[13] It is curious to observe how the bankers used all their influence and social power (enormous, in view of the large numbers of the public who received loans from them or were their shareholders) to impede and discourage the depositors from withdrawing their deposits, in the vain hope of avoiding the crisis. Thus, State Senator Condy Raguet of Pennsylvania, concluded that the pressure was almost irresistible and that “an independent man, who was neither a stockholder nor a debtor, who would have ventured to compel the banks to do justice,

would have been persecuted as an enemy of society." (Letter from Raguet to Ricardo dated April 18, 1821, published in David Ricardo, *Minor Papers on the Currency Question 1805–1823*, Jacob Hollander, ed. (Baltimore, Maryland: The Johns Hopkins University Press, 1932), pp. 199–201); quoted in Murray N. Rothbard, *The Panic of 1819: Reactions and Policies* (New York: Columbia University Press, 1962), pp. 10–11.

[14] A brief explanation of the Austrian theory of economic cycles, together with the most significant bibliography on the topic, may be found in my article "The Austrian Theory of Economic Cycles," originally published in *Moneda y Crédito*, no. 152 (Madrid, March 1980), and republished in volume 1 of my *Lecturas de Economía Política* (Madrid: Unión Editorial, 1986), pp. 241–56.

[15] See her article "The Theory of Free Banking," presented at the regional meeting of the Mont Pèlerin Society in Rio de Janeiro from September 1993, especially page 5.

[16] Mises, *Human Action*, pp. 648–88.

[17] Ludwig von Mises, *The Theory of Money and Credit* (Indianapolis, Ind.: Liberty Press, 1980), p. 447.

[18] Ludwig von Mises, "Monetary Stabilization and Cyclical Policy," in *On the Manipulation of Money and Credit* (Irvington-on-Hudson, N.Y.: Free Market Books, 1978), pp. 167–68.

[19] Mises, *The Theory of Money and Credit*, p. 481.

[20] F. A. Hayek, *Monetary Nationalism and International Stability* (New York: Augustus M. Kelley, 1971), pp. 81–84.

[21] F. A. Hayek, *Denationalization of Money*, pp. 119–20.

[22] See particularly Murray N. Rothbard's books *The Case for a One Hundred Percent Gold Dollar*, 2nd ed. (Auburn, Ala.: Ludwig von Mises Institute, 1991) and *The Mystery of Banking* (New York: Richardson & Snyder, 1983); and his articles "The Myth of Free Banking in Scotland," *Review of Austrian Economics* 2 (1988): 229–45 and "Aurophobia: or, Free Banking on What Standard?" *Review of Austrian Economics* 6, no. 1 (1992): 99–108.

[23] Maurice Allais, "Le retour à L'État du privilège exclusif de la creation monétaire" in *L'Impôt sur le capital et la réforme monétaire* (Paris: Hermann Editeurs, 1985), pp. 200–10, and also his most recent article "Les conditions monétaires d'une économie de marchés: des ensignements du passé aux réformes de demain," *Revue d'économie politique*, 3 (May/June 1993): 319–67.

[24] This tradition was initiated by an anonymous 26-page pamphlet on "Banking and Currency Reform," circulated in 1933

by Henry C. Simons, Aaron Director, Frank H. Knight, Henry Schultz, Paul H. Douglas, A. G. Hart and others and subsequently articulated by Henry C. Simons, "Rules *versus* Authorities in Monetary Policy," *Journal of Political Economy* XLIV, no. 1 (February 1936): 1–30; Albert G. Hart "The 'Chicago Plan' of Banking Reform," *Review of Economic Studies* 2 (1935): 104–16; and Irving Fisher *100 Percent Money* (New York: Aldelphi, 1936) culminating in 1959 with the publication of Milton Friedman's book *A Program for Monetary Stability* (New York: Fordham University Press, 1960).

[25] Mises, *Human Action*, p. 443. In short, according to Mises, it is a question of replacing the current tangle of administrative banking legislation by clear and simple articles in the commercial and criminal codes.

[26] Thus, for example, see the works of Lawrence H. White, *Free Banking in Britain: Theory, Experience and Debate, 1800–1845* (Cambridge: Cambridge University Press, 1984) and *Competition and Currency: Essays on Free Banking arid Money* (New York: New York University Press, 1989); those of George A. Selgin, *The Theory of Free Banking: Money Supply under Competitive Note Issue* (Totowa, N.J.: Rowman and Littlefield, 1988) and *The Experience of Free Banking*, George A. Selgin and Kevin Dowd, eds. (London: Routledge, 1992); and those of Kevin Dowd, *The State and the Monetary System* (New York: St. Martin's Press, 1989) and *Laissez Faire Banking* (London: Routledge, 1993).

[27] Quoted by Mises in *Human Action*, p. 446.

[28] Only in the sense of indirectly getting closer to the ideal should we understand Cernuschi's position, mentioned by Mises (in *Human Action*, p. 446), when in 1865, he said, "I believe that what is called freedom of banking would result in a total suppression of banknotes in France. I want to give everybody the right to issue banknotes so that nobody should take banknotes any longer."

[29] The practical problems posed by the *transition* from the current monetary and banking system to a system in which, at last, the creation of money and the banking business were completely separated from the State have been theoretically analyzed and solved by, among others, Murray N. Rothbard in his *Mystery of Banking*, pp. 249–69.

Egalitarianism and the Elites

Murray N. Rothbard

The Alleged Self-Evidence of Equality

One of the great glories of mankind is that, in contrast to other species, each individual is unique, and hence irreplaceable; whatever the similarities and common attributes among men, it is their differences that lead us to honor, or celebrate, or deplore the qualities or actions of any particular person.[1] It is the diversity, the heterogeneity, of human beings that is one of the most striking attributes of mankind.

This fundamental heterogeneity makes all the more curious the pervasive modern ideal of "equality." For "equality" means "sameness"—two entities are "equal" if and only if they are the same thing. $X = y$ only if they are either identical, or they are two entities that are the same in some attribute. If x, y, and z are "equal in length," it means that each one of them is identical in length, say 3 feet. People, then, can only be "equal" to the extent that they are identical in some attribute: thus, if Smith, Jones and Robinson are each 5 feet, 11 inches in height, then they are "equal" in height. But except for these special cases, people are heterogeneous, and diverse, that is, they are "unequal." Diversity, and hence "inequality," is therefore a fundamental fact of the human race. So how do we account for the almost universal contemporary worship at the shrine of "equality," so much so that it has virtually blotted out other goals or principles of ethics? And taking the lead in this worship have been philosophers, academics, and other leaders and members of the intellectual elites, followed by the entire troop of opinion-molders in modern society, including pundits, journalists, ministers, public school teachers, counselors, human relations consultants and "therapists." And yet, it should be almost evidently clear that a drive to pursue "equality" starkly violates the essential nature of mankind, and therefore can only be pursued, let alone attempt to succeed, by the use of extreme coercion.

The current veneration of equality is, indeed, a very recent notion in the history of human thought. Among philosophers or

prominent thinkers the idea scarcely existed before the mid-eighteenth century; if mentioned, it was only as the object of horror or ridicule.[2] The profoundly anti-human and violently coercive nature of egalitarianism was made clear in the influential classical myth of Procrustes, who "forced passing travellers to lie down on a bed, and if they were too long for the bed he lopped off those parts of their bodies which protruded, while racking out the legs of the ones who were too short. This was why he was given the name of Procrustes [The Racker]."[3]

One of the rare modern philosophers critical of equality made the point that "we can ask whether one man is as tall as another, or we may, like Procrustes, seek to establish equality among all men in this respect."[4] But our fundamental answer to the question whether equality exists in the real world must be clearly that it does not, and any quest "to establish equality" can only result in the grotesque consequences of any Procrustean effort. How, then, can we not regard Procrustes's egalitarian "ideal" as anything but monstrous and unnatural? The next logical question is why Procrustes chooses to pursue such a clearly anti-human goal, and one that can only lead to catastrophic results?

In the context of the Greek myth, Procrustes is simply pursuing a lunatic "aesthetic" goal, presumably following his personal star of every person being precisely equal in height to the length of his bed. And yet, this sort of non-argument, this bland assumption that the ideal of equality needs no justification, is endemic among egalitarians. Thus, the argument of the distinguished Chicago economist Henry C. Simons for a progressive income tax was that he found inequality of income "distinctly evil or unlovely."[5] Presumably, Procrustes might have used the same sort of "argument" in behalf of the "unlovely" nature of inequality of height had he bothered to write an essay advocating his particular egalitarian program. Indeed, most writers simply assume that equality is and must be the overriding goal of society, and that it scarcely needs any supporting argument at all, even a flimsy argument from personal esthetics. Robert Nisbet was and is still correct when he wrote, two decades ago, that

> It is evident that . . . the idea of equality will be sovereign for the rest of this century in just about all circles concerned with the philosophical bases of public policy. . . . In the past, unifying ideas tended

> to be religious in substance. There are certainly signs that equality is taking on a sacred aspect among many minds today, that it is rapidly acquiring dogmatic status, at least among a great many philosophers and social scientists.[6]

The Oxford sociologist A. H. Halsey, indeed, was "unable to divine any reason other than 'malevolence' why anyone should want to stand" in the way of his egalitarian program. Presumably that "malevolence" could only be diabolic.[7]

"Equality" in What?

Let us now examine the egalitarian program more carefully: *what*, exactly, is supposed to be rendered equal? The older, or "classic," answer was monetary incomes. Money incomes were supposed to be made equal.

On the surface, this seemed clear-cut, but grave difficulties arose quickly. Thus, should the equal income be per person, or per household? If wives don't work, should the family income rise proportionately? Should children be forced to work in order to come under the "equal" rubric, and if so at what age? Furthermore, is not *wealth* as important as annual income? If A and B each earn $50,000 a year, but A possesses accumulated wealth of $1,000,000 and B owns virtually nothing, their equal incomes scarcely reflect an equality of financial position.[8] But if A is taxed more heavily due to his accumulation, isn't this an extra penalty on thrift and savings? And how are these problems to be resolved?

But even setting aside the problem of wealth, and focussing on income, can incomes ever *really* be equalized? Surely, the item to be equalized cannot be simply *monetary* income. Money is, after all, only a paper ticket, a unit of account, so that the element to be equalized cannot be a mere abstract *number* but must be the goods and services that can be purchased with that money. The world-egalitarian (and surely the truly committed egalitarian can hardly stop at a national boundary) is concerned to equalize not currency totals but actual purchasing-power. Thus, if A receives an income of 10,000 drachmas a year and B earns 50,000 forints, the equalizer will have to figure out how many forints are actually equivalent to one drachma in purchasing power, before he can wield his equalizing axe correctly. In short, what the economist refers to as "real" and not

mere monetary incomes must be equalized for all.

But once the egalitarian agrees to focus on real incomes, he is caught in a thicket of inescapable and insoluble problems. For a large number of goods and services are not homogeneous, and cannot be replicated for all. One of the goods that a Greek may consume with his drachmas is living in, or spending a great deal of time in, the Greek islands. This service (of continuously enjoying the Greek islands) is barred ineluctably to the Hungarian, to the American and to everyone else in the world. In the same way, dining regularly at an outdoor cafe on the Danube is an estimable service denied all the rest of us who do not live in Hungary.

How, then, is real income to be equalized throughout the world? How can the enjoyment of the Greek islands or dining on the Danube be measured, much less gauged by the egalitarian against other services of location? If I am a Nebraskan, and exchange rate manipulations have allegedly equated my income with a Hungarian, how is living in Nebraska to be compared with living in Hungary? The bog gets worse on contemplation. If the egalitarian considers that Danube-enjoyment is somehow superior to enjoying the sights and scenes of Omaha, or a Nebraska farm, on exactly what basis is the egalitarian going to tax the Hungarian and subsidize everyone else? How is he to measure, in monetary terms, the "value of dining on the Danube?" Obviously, the stern rigors of natural law prevent him, much as he would clearly like to do so, from taking the Danube physically and parcelling it out equally to every inhabitant throughout the world. And what of people who *prefer* the views of and life in a Nebraska farm community to the sins of Budapest? Who, then, is to be taxed and who subsidized and by how much?

Perhaps in desperation, the egalitarian might fall back on the view that everyone's location reflects his preferences, and that we can therefore simply assume that locations can be neglected in the great egalitarian re-ordering. But while it is true that virtually every spot on the globe is beloved by someone, it is also true that, by and large, some locations are greatly preferred to others. And the location problem occurs within as well as between countries. It is generally acknowledged, both by its residents and by envious outsiders, that the Bay Area of San Francisco is, by climate and topography, far closer to an earthly Paradise than, say West Virginia or Hoboken, New Jersey. Why then don't these benighted outlanders *move* to the Bay Area? In

the first place, many of them have, but others are barred by the fact of its relatively small size, which (among other, man-made restrictions, such as zoning laws), severely limits migration opportunities. So, in the name of egalitarianism, should we levy a special tax on Bay Area residents and on other designated garden spots, to reduce their psychic income of enjoyment, and then subsidize the rest of us? And how about pouring subsidies into specially designated Dismal Areas, again in the pursuit of equal real incomes? And how is the equalizing government supposed to find out *how much* people in general, and *a fortiori* each individual resident, love the Bay Area and how much negative income they suffer from living in, say, West Virginia or Hoboken? Obviously, we can't *ask* the various residents how much they love or hate their residential areas, for the residents of every location from San Francisco to Hoboken, would have every incentive to lie—to rush to proclaim to the authorities how much they revile the place where they live.

And location is only one of the most obvious examples of non-homogeneous goods and services which cannot be possibly equalized across the nation or the world.

Moreover, even if wealth and real incomes are both equalized, how are *people*, their abilities, cultures, and traits, to be equalized? Even if the monetary position of each family is the same, will not children be born into families with very different natures, abilities, and qualities? Isn't that, to use a notorious egalitarian term, "unfair"? How then can families be made equal, that is, uniform? Doesn't a child in a cultured and intelligent and wise family enjoy an "unfair" advantage over a child in a broken, moronic, and "dysfunctional" home? The egalitarian must therefore press forward and advocate, as have many communist theorists, the nationalization of all kids from birth, and their rearing in legal and identical state nurseries. But even here the goal of equality and uniformity cannot be achieved. The pesky problem of location will remain, and a state nursery in the Bay Area, even if otherwise identical in every way with one in the wilds of central Pennsylvania, will still enjoy inestimable advantages—or, at the very least, ineradicable differences from the other nurseries. But apart from location, the people—the administrators, nurses, teachers, inside and outside of the various encampments—will all be different, thus giving each child an inescapably different experience, and wrecking the quest for equality for all.

Of course, suitable brainwashing, bureaucratization, and the

general robotization and deadening of spirit in the state encampments may help reduce all the teachers and nurses, as well as the children, to a lower and more common denominator, but ineradicable differences and advantages will still remain.

And even if, for the sake of argument, we can assume general equality of income and wealth, other inequalities will not only remain, but, in a world of equal incomes, they will become still more glaring and more important in weighing people. Differences of position, differences of occupation, and inequalities in the job hierarchy and therefore in status and prestige will become even more important, since income and wealth will no longer be a gauge for judging or rating people. Differences in prestige between physicians and carpenters, or between top executives and laborers, will become still more accentuated. Of course, job prestige can be equalized by eliminating hierarchy altogether, abolishing all organizations, corporations, volunteer groups, etc. Everyone will then be equal in rank and decisionmaking power. Differences in prestige could only be eliminated by entering the Marxian heaven and abolishing all specialization and division of labor among occupations, so that everyone would do everything. But in that sort of economy, the human race would die out with remarkable speed.[9]

The New Coercive Elite

When we confront the egalitarian movement, we begin to find the first practical, if not logical, contradiction within the program itself: that its outstanding advocates are not in any sense in the ranks of the poor and oppressed, but are Harvard, Yale, and Oxford professors, as well as other leaders of the privileged social and power elite. What kind of "egalitarianism" is *this?* If this phenomenon is supposed to embody a massive assumption of liberal guilt, then it is curious that we see very few of this breast-beating elite actually divesting themselves of their worldly goods, prestige, and status, and go live humbly and anonymously among the poor and destitute. Quite the contrary, they seem not to stumble a step on their climb to wealth, fame, and power. Instead, they invariably bask in the congratulations of themselves and their like-minded colleagues of the high-minded morality in which they have all cloaked themselves.

Perhaps the answer to this puzzle lies in our old friend Procrustes. Since no two people are uniform or "equal" in any

sense in nature, or in the outcomes of a voluntary society, to bring about and maintain such equality necessarily requires the permanent imposition of a power elite armed with devastating coercive power. For an egalitarian program clearly requires a powerful ruling elite to wield the formidable weapons of coercion and even terror required to operate the Procrustean rack: to try to force everyone into an egalitarian mold. Hence, at least for the ruling elite, there is no "equality" here—only vast inequalities of power, decisionmaking, and undoubtedly, income and wealth as well.

Thus, the English philosopher Antony Flew points out that "the Procrustean ideal has, as it is bound to have, the most powerful attraction for those already playing or hoping in the future to play prominent or rewarding parts in the machinery of enforcement." Flew notes that this Procrustean ideal is "the uniting and justifying ideology of a rising class of policy advisors and public welfare professionals," adding significantly that "these are all people both professionally involved in, and owing to their past and future advancement to, the business of enforcing it."[10]

That the necessary consequence of an egalitarian program is the decidedly inegalitarian creation of a ruthless power elite was recognized and embraced by the English Marxist-Leninist sociologist Frank Parkin. Parkin concluded that "Egalitarianism seems to require a political system in which the state is able to hold in check those social and occupational groups which, by virtue of their skills or education or personal attributes, might otherwise attempt to stake claims to a disproportionate share of society's rewards. The most effective way of holding such groups in check is by denying the right to organize politically, or, in other ways, to undermine social equality. This presumably is the reasoning underlying the Marxist-Leninist case for a political order based upon the dictatorship of the proletariat."[11]

But how is it that Parkin and his egalitarian ilk never seem to realize that this explicit assault on "social equality" leads to tremendous inequalities of power, decisionmaking authority, and, inevitably, income and wealth? Indeed, why is this seemingly obvious question never so much as raised among them? Could there be hypocrisy or even deceit at work?

The Iron Law of Oligarchy

One reason that an egalitarian political program must lead to the

installation of a new coercive political elite is that hierarchies and inequalities of decisionmaking are inevitable in any human organization that achieves any degree of success in attaining its goals.

Robert Michels first observed this Iron Law of Oligarchy, in seeing the Social Democratic parties of Europe in the late nineteenth century, officially committed to equality and abolition of the division of labor, in practice being run by a small ruling elite. And there is nothing, outside of egalitarian fantasies, wrong with this universal human fact, or law of nature. In any group or organization, there will arise a core leadership of those most able, energetic, and committed to the organization, I know, for example, of a small but increasingly successful volunteer, musical society in New York. Although there is a governing board elected annually by its members, the group has for years been governed by the benevolent but absolute autocratic rule of its president, a lady who is highly intelligent, innovative, and, though employed full-time elsewhere, able and willing to devote an incredible amount of time and energy to this organization. Several years ago some malcontent challenged this rule, but the challenge was easily beaten back, since every rational member knew full well that she was absolutely vital to the success of the organization.

Not only is there nothing wrong with this situation, but blessed be the group where such a person exists and can come to the fore! There is, in fact, everything right about a rise to power, in voluntary or market organizations, of the most able and efficient, of a "natural aristocracy," in Jeffersonian terms. Democratic voting, at its best when shareholders of a corporation vote the aliquot share of their ownership of a company's assets, is only secondarily useful as a method of displacing natural aristocrats or "monarchs" gone sour, or, in Aristotelian terms, who have deteriorated from "monarch" to "tyrants." Democratic voting, therefore, is even at its best scarcely even a primary good, let alone a good-in-itself to be glorified or even deified.

During a period in the mid-1960s, the New Left, before it hived off into Stalinism and bizarre violence, was trying to put into effect a new political theory: participatory democracy. Participatory democracy *sounded* libertarian, since the idea was that majority rule, even in a private and voluntary organization, is "coercive," and therefore that all decisions of that organization must be stripped of oligarchic rule. Every member would then participate equally, and furthermore, every member would have

to give his or her consent to any decision. In a sense, this Unanimity Rule foreshadowed and paralleled the Unanimity Rule of James Buchanan and of Paretian "welfare economics."

A friend of mine was teaching about the history of Vietnam at the New Leftist Free University of New York, originally a scholarly organization founded by a young sociologist couple. The Free University set out to govern itself on participatory democratic principles. The governing body, the board of the Free University, therefore consisted of the "staff"—the sociologist couple—plus any students (who paid a modest tuition) or teachers (unpaid) who cared to attend the board's meetings. All were equal, the founding staff was no more powerful than any teacher or wandering student. All decisions of the school, from courses taught, room assignments, and on down to whether or not the school needed a paint job and what color the paint should be, were decided by the board, never by voting but always by unanimous consent.

Here was a fascinating sociological experiment. Not only, as one might expect, were very few decisions of any sort reached, but the "board meeting" stretched on endlessly, so that the board meeting expanded to become *life itself*—a kind of Sartrian *No Exit* situation. When my friend left the perpetual meeting each day at 5:00 p.m. to go home, he was accused of abandoning the meeting and thereby "betraying the collective" and the school by attempting to live some sort of private life outside the meeting. Perhaps this is what the current leftist political theorists who exalt the "public life" and "civic virtue" have in mind: private lives being forsaken on behalf of the permanent floating "civically virtuous" collective meeting of "the community!"

It should not come as any surprise to reveal that the Free University of New York did not last very long. In point of fact, it quickly deteriorated from a scholarly outfit to the "teaching" of New Left astrology, tarot cards, channeling, eurythmics, and whatnot as the scholars all fled before the mass man, or as a sociological Gresham's Law came into action. (As for the founding couple, the female wound up in jail for unsuccessfully trying to blow up a bank, while the male, getting increasingly glassy-eyed, in a feat of sociological legerdemain, talked himself into the notion that the only moral occupation for a revolutionary sociologist was that of radio repairman.)

New Left educational theory, during that period, also permeated more orthodox colleges throughout the country. In those days, the doctrine was not so much that teaching had to be

"politically correct," but that the normal teacher-student relation was evil because inherently unequal and hierarchical. Since the teacher is assumed to know more than the student, therefore, the truly egalitarian and "democratic" form of education, the way to put teacher and student on an equal footing, is to scrap course content altogether and to sit around discussing the student's "feelings." Not only are all feelings in some sense equal, at least in the sense that one person's feelings cannot be considered "superior" to others, but those feelings are supposedly the only subjects "relevant" to students. One problem that this doctrine raised, of course, is why the students, or more correctly their long-suffering parents, should pay faculty who are qualified in knowledge of economics, sociology, or whatever but not in psychotherapy, to sit around gabbing about the students' feelings?

Institutionalizing Envy

As I have elaborated elsewhere, the egalitarian impulse, once granted legitimacy, cannot be appeased. If monetary or real incomes become equalized, or even if decisionmaking power should be equalized, *other* differences among persons become magnified and irritating to the egalitarian: inequalities in looks, intelligence, and so on.[12] One intriguing point however: there are some inequalities that never seem to outrage egalitarians, namely income inequalities among those who directly supply consumer services—notably athletes, movie and TV entertainers, artists, novelists, playwrights, and rock musicians. Perhaps this is the reason for the persuasive power of Robert Nozick's famous "Wilt Chamberlain" example in defense of market-determined incomes. There are two possible explanations: (1) that these consumer values are held by the egalitarians themselves and are therefore considered legitimate, or (2) that, with the exception of athletics, these are fields implicitly recognized as dominated nowadays by forms of entertainment and art that require no real talent. Differences in income, therefore, are equivalent to winning at a lottery, and lottery or sweepstake winners are universally lauded as purely "lucky," with no envy of superior attributes to be attached to them.[13]

The German sociologist Helmut Schoeck has pointed out that modern egalitarianism is essentially an institutionalization of envy. In contrast to successful or functional societies, where envy is always considered a shameful emotion, egalitarianism sets up

a pervasive attitude that the *exciting* of envy by manifesting some form of superiority is considered the greatest evil. Or, as Schoeck put it, "the highest value is envy-avoidance."[14] Indeed, communist anarchists explicitly aim to stamp out private property because they believe that property gives rise to inequality, and therefore to feelings of envy, and hence "causes" crimes of violence against those with more property. But as Schoeck points out, economic egalitarianism would then not be sufficient: and compulsory uniformity of looks, intelligence, etc. would have to follow.[15]

But even if all possible inequalities and difference among individuals could somehow be eradicated, Helmut Schoeck adds, there still would remain an irreducible element: the mere existence of individual privacy. As Schoeck puts it, "if a man really makes use of his right to be alone, the annoyance, envy, and mistrust of his fellow citizens will be aroused. . . . Anyone who cuts himself off, who draws his curtains and spends any length of time outside the range of observation, is always seen as a potential heretic, a snob, a conspirator."[16] After some amusing comments about suspicion of the "sin of privacy" in American culture, particularly in the widespread open-door policy among academics, Schoeck turns to the Israeli kibbutz and to its widely and overly revered philosopher, Martin Buber. Buber maintained that to constitute a "real community," the absolutely equal members of the kibbutz must "have mutual access to one another and [be] ready for one another." As Schoeck interprets Buber: "a community of equals, where no one ought to envy anyone else, is not guaranteed by absence of possessions alone, but requires mutual possession, in purely human terms. . . . Everyone must always have time for everybody else, and anyone who hoards his time, his leisure hours, and his privacy excludes himself."[17]

The New Group Egalitarianism

So far we have been describing what may be called "classical," or the Old, egalitarianism, aimed to make all individuals in some sense equal, generally in income and wealth. But in recent years, we have all been subjected to a burgeoning and accelerating New Egalitarianism, which stresses not that every individual must be made equal, but that the income, prestige, and status of a seemingly endless proliferation of "groups" must be made equal to each other.

At first blush, it might seem that the new group egalitarianism is less extreme or unrealistic than the old individual creed. For if every individual is really totally equal to every other in income, wealth, or status, then it will follow logically that any subset of groups of such individuals will be equal as well. Shifting emphasis from individual to group egalitarianism must therefore imply settling for a less severe degree of equality. But this conclusion misconceives the whole point of egalitarianism, old or new. No egalitarian actually expects ever to be in a state of absolute equality, still less does he begin his analysis with that starting point.

Perhaps we can illuminate the true nature of the egalitarian drive, and the relationship between the Old and the New movements, by focussing not, as is usually done, on their patently absurd and self-contradictory ostensible goals of equality, but on the required means to attain such goals: namely the coming to power of the Procrustean State apparatus, the new coercive elite. Who are the Procrustean elite? That is, which groups are needed to constitute such an elite? By an odd coincidence, the makeup of such groups seems to correspond, almost one-to-one, to those people who have been most enthusiastic about egalitarianism over the years: intellectuals, academics, opinion-molders, journalists, writers, media elites, social workers, bureaucrats, counsellors, psychologists, personnel consultants, and especially for the ever-accelerating new group egalitarianism, a veritable army of "therapists" and sensitivity trainers. Plus, of course, ideologues and researchers to dream up and discover new groups that need egalitarianizing.

If these groups of what might very loosely be called the "intelligentsia" are the driving force of the Old and the New embodiments of egalitarianism, how does this minority hope to convince a majority of the public to turn over an apparatus of despotic power into its hands? In the first place, the intellectuals start with a huge advantage far beyond their relative smallness of number: they are dominant within the "opinion-molding class" that attempts to shape public opinion, and often succeeds in that task. As is always the case, the State rulers need the support of an opinion-molding class to engineer the consent of the public. In the Old Egalitarianism, the would-be rulers sought to bring into their camp, in the first place, the seeming economic beneficiaries of the egalitarian program—the lower-income groups who would be recipients of much of the transfer, or soaking of the wealthy (part of the transfer from the rich, of course, would go into the

coffers of the Procrustean elites themselves, the brokers of the egalitarian wealth-transfer). As for the plundered wealthy, *they* would be induced to support the system by being persuaded that they must expiate their "guilt" at being wealthier than their impoverished fellow-citizens. Infusion of guilt is a classic path of persuading the wealthy victim to surrender his wealth without a struggle.

Any success in the Old Egalitarian program led, of course, to expansion of the number, the wealth, and the power of the new Procrustean elite, resulting in an ever lower income definition of "the wealthy" to be plundered, and an ever higher definition of "the poor" to be subsidized. This process has been all too clearly at work in the United States and in the western world in the twentieth century. From being confined to the highest income brackets, for example, the payers of income tax have descended into the ranks of the far more numerous middle class. At the same time, the "poverty level" to be subsidized and cosseted has marched steadily upward, as the "poverty line" is continually revised upward, and the subsidized escalate from the very poor to the unemployed to the more affluent "working poor."

From the point of view of the egalitarians, however, the weakness of the Old Egalitarianism is that it has only one category of beneficiary—"the poor," however defined, and one category of the plundered, "the rich." (That they themselves are notable beneficiaries is always discreetly left hidden behind the veil of altruism and alleged expertise. For anyone else to bring up to the point would be considered ungentlemanly, or, even worse, to be engaging in the much-derided "conspiracy theory of history.")[18]

In the light of this analysis, then, let us examine the New Group Egalitarianism. As we all know, the new egalitarians search for "oppressed" groups who are lower in income, status, or prestigious jobs than others, who become the designated "oppressors." In classic leftism or Marxism, there was only one alleged "oppressed group," the proletariat. Then the floodgates were opened, and the ranks of the designated oppressed, or "accredited victims," have proliferated seemingly without end. It began with the oppressed blacks, and then in rapid succession, there were woman, Hispanics, American Indians, immigrants, "the disabled," the young, the old, the short, the very tall, the fat, the deaf, and so on *ad infinitum*. The point is that the proliferation *is*, in fact, endless. Every individual "belongs" to an almost infinite variety of groups or classes. Take, for example, a

Mr. John Smith. He may belong to an enormous number of classes: e.g., people named "Smith," people named "John," people of height 5 feet 10 inches, people of height under 6 feet, people who live in Battle Creek, Michigan, people who live north of the Mason-Dixon line, people with an income of . . . etc. And among all these classes, there are an almost infinite number of permutations. It has gotten to the point where the only "theory" of "oppression" needed is if any such group has a lower income or wealth or status than other groups. The below-average group, whatever it is, is then *by definition*, "discriminated against" and therefore is designated as oppressed. Whereas any group above the average is, by definition, doing the discriminating, and hence a designated oppressor.

Every new discovery of an oppressed group can bring the egalitarian more supporters in his drive to power, and also creates more "oppressors" to be made to feel guilty. All that is needed to find ever-new sources of oppressors and oppressed is data and computers, and, of course, researchers into the phenomena—the researchers themselves constituting happy members of the Procrustean elite class.[19]

The charm of group egalitarianism for the intellectual-technocratic-therapeutic-bureaucratic class, then, is that it provides a nearly endless and accelerating supply of oppressed groups to coalesce around the egalitarians' political efforts. There are, then, far more potential supporters to rally around the cause than could be found if only "the poor" were being exhorted to seek and promote their "rights." And as the cause expands, of course, there is a multiplication of jobs and an acceleration of taxpayer funding flowing into the coffers of the Procrustean ruling elite, a not-accidental feature of the egalitarian drive. Joseph Sobran recently wrote that, in the current lexicon, "need" is the desire of people to loot the wealth of others; "greed" is the desire of those others to keep the money they have earned; and "compassion" is the function of those who negotiate the transfer. The ruling elite may be considered the "professional compassionate" class. It is easy, of course, to be conspicuously "compassionate" if others are being forced to pay the cost.

This acceleration of New Egalitarianism leads, relatively quickly, to inherent problems. First, there is what Mises called "the exhaustion of the reserve fund," that is, the resources available to be plundered and to pay for all this. As a corollary, along with this exhaustion may come the "backlash," when the genuinely oppressed—the looted, those whom William Graham

Sumner once called the Forgotten Man—may get fed up, rise up and throw off the shackles which have bound this Gulliver and induced him to shoulder the expanding parasitic burdens.

The New Egalitarian Elite

We conclude with one of the great paradoxes of our time: that the powerful and generally unchallenged cry for "equality" is driven by the decidedly inegalitarian aim of climbing on its back to increasingly absolute political power, a triumph which will of course make the egalitarians themselves a ruling elite in income and wealth as well as power. Behind the honeyed but patently absurd pleas for equality is a ruthless drive for placing themselves at the top of a new hierarchy of power. The new intellectual and therapeutic elite impose their rule in the name of "equality." As Antony Flew tellingly puts it: equality "serves as the unifying and justifying ideology of certain social groups . . . the Procrustean ideal has, as it is bound to have, the most powerful attraction for those already playing or hoping in the future to play prominent or rewarding parts for the machinery of its enforcement."[20]

In a brilliant and mordant critique of the current ascendancy of left-liberal intellectuals, the great economist and sociologist Joseph Schumpeter, writing as early as World War II, pointed out that nineteenth-century free-market "bourgeois" capitalism, in sweeping away aristocratic and feudal political structures, and challenging the "irrational" role of religion and the heroic virtues in behalf of the utilitarianism of the counting-house, foolishly managed to destroy the necessary protections for their own free-market order. As Schumpeter vividly puts it: "The stock exchange is a poor substitute for the Holy Grail." Schumpeter continues:

> Capitalist rationality does not do away with sub- or super-rational impulses. It merely makes them get out of hand by removing the restraint of sacred or semi-sacred tradition. In a civilization that lacks the means and even the will to guide them, they will revolt. . . . Just as the call for utilitarian credentials has never been addressed to kings, lords, and popes in a judicial frame of mind that would accept the possibility of a satisfactory answer, so capitalism stands its trial before judges who have the sentence of death in their pockets. They are going to pass it,

> whatever the defense they may hear; the only success victorious defense can possibly produce is a change in the indictment.

The capitalist process, Schumpeter adds, "tends to wear away protective strata, to break down its own defenses, to disperse the garrisons of its entrenchments." Moreover,

> capitalism creates a critical frame of mind which, after having destroyed the moral authority of so many other institutions, in the end turns against its own; the bourgeois finds to his amazement that the rationalist attitude does not stop at the credentials of kings and popes but goes on to attack private property and the whole scheme of bourgeois values.

As a result, Schumpeter points out, "the bourgeois fortress becomes politically defenseless." But,

> defenseless fortresses invite aggression especially if there is rich booty in them. . . . No doubt it is possible, for a time, to buy them off. But this resource fails as soon as they discover that they can have all.

Schumpeter notes that his explanation for rising hostility to free market capitalism at a time when it had brought to the world unprecedented freedom and prosperity, is confirmed by the striking fact that,

> there was very little hostility [to free-market capitalism] on principle as long as the bourgeois position was safe, although there was then much more reason for it; it [the hostility] spread *pari passu* with the crumbling of the protective walls. [21]

At the head and the nerve center of the driving force to take advantage of this bourgeois weakness have been the left-liberal intellectuals, a class multiplied vastly in number by the prosperity of capitalism and particularly by continuing and vast government subsidies to public schools, to formal literacy, and to modern communications. These subsidies not only helped create a huge class of intellectuals, but also have provided them—as

well as the state apparatus—for the first time in history with the tools necessary to indoctrinate the mass of the public at large. [22] Moreover, since the bourgeois free-market order is deeply committed to the rights of private property, and hence to freedom of speech and the press, by the very principles at the heart of their system, they find it impossible to "discipline" the intellectuals, in Schumpeter's phrase "to bring the intellectuals to heel." Thus, the intellectuals, nurtured in the bosom of free-market capitalist society, take the earliest opportunity to turn savagely on their benefactors, "to nibble at the foundations of capitalist society," and finally to organize a drive for power using their virtual monopoly of the opinion-molding process by perverting the original meaning of such words as "freedom," "rights," and "equality."[23] Perhaps the most hopeful aspect of this process is that, as the late sociologist Christopher Lasch points out in his new work, the values, attitudes, principles and programs of the increasingly arrogant liberal intellectual elite is so out of sync, so much in conflict, with those of the mass of the American public, that a powerful counter-revolutionary backlash is apt to occur, and indeed at this very moment seems in the process of spreading rapidly throughout the country.[24]

In his sparkling essay, "Equality as a Political Weapon," Samuel Francis gently chides conservative opponents of egalitarianism for expending a large amount of energy in philosophical, historical, and anthropological critiques of the concept and the doctrine of equality. This entire "formal critique," however rewarding and illuminating, declares Francis, is really wide of the mark:

> In a sense, I believe that it has been beating a dead horse—or more strictly, a dead unicorn, a beast that exists only in legend. The flaw, I believe, is that the formal doctrine of equality is itself nonexistent or at least unimportant.[25]

How so? The doctrine of equality is "unimportant," Francis explains, "because no one, save perhaps Pol Pot or Ben Wattenberg, really believes in it, and no one, least of all those who profess it most loudly, is seriously motivated by it." Here Francis quotes the great Pareto:

> a sentiment of equality . . . is related to the direct interests of individuals who are bent in escaping certain inequalities not in their favor, and setting up

> new inequalities that will be in their favor, the latter being their chief concern.[26]

Francis then points out that "the real meaning" of the "doctrine of equality," as well as its "real power as a social and ideological force," cannot be countered by merely formal critiques. For:

> the real meaning of the doctrine of equality is that it serves as a political weapon, to be unsheathed whenever it is useful for cutting down barriers, human or institutional, to the power of those groups that wear it on their belts.[27]

To mount an effective response to the reigning egalitarianism of our age, therefore, it is necessary but scarcely sufficient to demonstrate the absurdity, the anti-scientific nature, the self-contradictory nature, of the egalitarian doctrine, as well as the disastrous consequences of the egalitarian program. All this is well and good. But it misses the essential nature of, as well as the most effective rebuttal to, the egalitarian program: to expose it as a mask for the drive to power of the now ruling left-liberal intellectual and media elites. Since these elites are also the hitherto unchallenged opinion-molding class in society, their rule cannot be dislodged until the oppressed public, instinctively but inchoately opposed to these elites, are shown the true nature of the increasingly hated forces who are ruling over them. To use the phrases of the New Left of the late 1960s, the ruling elite must be "demystified," "delegitimated," and "desanctified." Nothing can advance their desanctification more than the public realization of the true nature of their egalitarian slogans.

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[1] I realize that specialists on bees or ants will point out divisions of labor among various groups of their species, but I remain unconvinced that any individual ant or bee has a "personality" worthy of being honored, mourned, or denounced.

[2] Thus, the great late-eleventh-century Arab al-Ghazali

denounced the idea of coerced equality and sternly warned that any sharing of wealth must be voluntary. See S. M. Ghazafar and A. A. Islahi, "The Economic Thought of an Arab Scholastic: Abu Hamid al-Ghazali (1058–1111)," *History of Political Economy* 22 (Summer 1990): 381–403.

[3] Antony Flew, *The Politics of Procrustes: Contradictions of Enforced Equality* (Buffalo, N.Y.: Prometheus Books, 1981), frontispiece.

[4] J. R. Lucas, "Against Equality Again," *Philosophy* 52 (July 1977): 255.

[5] Henry C. Simons, *Personal Income Taxation* (Chicago: University of Chicago Press, 1938), p. 19.

[6] Richard Nisbet, "The Pursuit of Equality," *The Public Interest* 35 (1974): 103, cited in Antony Flew, *Politics of Procrustes*, p. 20.

[7] Cited in ibid., pp. 22, 187.

[8] The progressive income tax, a favorite device of egalitarians to help equalize incomes, neglects the wealth differential. As a result it is scarcely outlandish for multi-millionaires with relatively low annual incomes to support a progressive tax that would cripple rising young, high-income but low wealth, competitors. Cf. Ludwig von Mises, *Human Action*, 3rd rev. ed. (Chicago: Henry Regnery, 1966), p. 809.

[9] On the Marxian ideal of abolishing the division of labor, see Murray N. Rothbard, *Freedom, Inequality, Primitivism, and the Division of Labor* (Menlo Park, Calif.: Institute for Humane Studies, 1971), pp. 10–15 (reprinted 1991 by the Ludwig von Mises Institute); and Paul Craig Roberts, *Alienation and the Soviet Economy*, 2nd ed. (New York: Holmes and Meier, 1990).

[10] Flew, *Politics of Procrustes*, pp. 11–12, 62.

[11] Frank Parkin, *Class Inequality and Political Order* (London: Paladin, 1972), p. 183; quoted in Flew, *Politics of Procrustes*, pp. 63–64.

[12] Murray N. Rothbard, *Freedom, Inequality, Primitivism, and the Division of Labor*, 2nd ed. (1971; Auburn, Ala.: Ludwig von Mises Institute, 1991); and Rothbard, "Egalitarianism as a Revolt Against Nature," in *Egalitarianism as a Revolt Against Nature and Other Essays* (Washington, D.C.: Libertarian Review Press, 1974), pp. 1–13.

[13] Helmut Schoeck refers to the "absolute equality of opportunity that prevails in a game of chance which, as all the players know from the start, can be won only by a very few." Schoeck points out that "the winner of a jackpot is very little

envied. This is because of the real equality of opportunity and that absolute fortuitousness of the method of selecting the winner. A wife will not nag her husband for not having bought the right lottery ticket . . . no one could seriously suffer from an inferiority complex as a result of repeated failure." Helmut Schoeck, *Envy: A Theory of Social Behavior* (New York: Harcourt, Brace and World, 1970), p. 240.

[14] Ibid., p. 151.

[15] For penetrating examples of this egalitarian dystopia in fiction, see L. P. Hartley, *Facial Justice* (London: Humish Hamilton, 1960) and Kurt Vonnegut, Jr., "Harrison Bergeron" (1961), in *Welcome to the Monkey House* (New York: Dell, 1970), pp. 7–13.

[16] Schoeck, *Envy*, p. 295.

[17] Martin Buber, *Paths in Utopia* (Boston: Beacon Press, 1958), pp. 144ff; Schoeck, *Envy*, pp. 298–99.

[18] It seems to me that what is needed to perceive these relationships is no high-flown "theory," but only a willingness to part the curtains of obfuscation and see what is actually going on, and to acknowledge that the Emperor has no clothes.

[19] On the new group egalitarianism, see Rothbard, *Freedom, Inequality, and Primitivism, and the Division of Labor*, pp. 8–15.

[20] Flew, *Politics of Procrustes*, pp. 11–12.

[21] Joseph A. Schumpeter, *Capitalism, Socialism, and Democracy* (New York: Harper & Bros., 1942), pp. 137, 143–44.

[22] For an illuminating discussion of the use of such subsidies and technology by the political and media elites to manipulate mass support, see Benjamin Ginsberg, *The Captive Public: How Mass Opinion Promotes State Power* (New York: Basic Books, 1986), pp. 86–98.

[23] Schumpeter, *Capitalism*, p. 150.

[24] See Christopher Lasch, "The Revolt of the Elites," *Harper's* 289 (November 1994): 39–49.

[25] Samuel Francis, "Equality as a Political Weapon," *Essays in Political Economy* 10 (July 1991): 2. The essay was originally delivered as a lecture at the Ludwig von Mises Institute's conference on "Equality and the Free Society" in April 1991. Also published in *Beautiful Losers: Essays on the Failure of American Conservatism* (Columbia, Mo.: University of Missouri Press, 1993).

[26] Samuel Francis, *Beautiful Losers: Essays on the Failure of American Conservatism*, pp. 208–9. The Pareto quote comes from

Pareto's *The Mind and Society* (New York: Harcourt, Brace, 1935), vol. 2, pp. 735–36.

[27] Francis, *Beautiful Losers*, p. 209.

Ethics, Efficiency, Coasian Property Rights, and Psychic Income: A Reply to Demsetz

Walter Block

The Debate over Property Rights

The purpose of the present article is to continue my part in the debate over property rights in which I have become enmeshed with Harold Demsetz. It all began with the publication of my piece (Block 1977a), which was critical of Coase (1960) and of Demsetz (1966, 1967). The second round consisted of Demsetz (1979), in which he replied to my critique (Block 1977a).

Ronald Coase

In his seminal article, Coase (1960) turned the world of economics upside down. It might even be said that with one (longish) stroke of the pen, he created the entirely new sub-discipline of Law and Economics; and that he did so out of the ashes of at least one part of the traditional field as it stood before his onslaught: that occupied by Pigou (1932).

Previously, the view of the profession regarding invasions against another person or his property was the classical liberal one of cause and effect. A was the perpetrator, B the victim. To be sure, there was some equivocation amongst the Pigovians as to whether the proper public policy response to this was to tax A in an effort to force him to stop his depredations, or to give him a subsidy so as to entice him toward this end (ibid., p. 184). But the idea of property rights was maintained intact: there was always a clear cut distinction maintained between the violators of that institution and those who suffered thereby.

As well, in the more traditional perspective, wealth maximization was the byproduct of private property rights, rather than the progenitor. In other words, economic considerations was the tail, and property rights was the dog. Locke (1955, 1960), for example, did not ask whether the

homesteader was the most efficient utilizer of virgin territory. For this philosopher, it was enough that a person was the first to "mix his labor with the land"; this, and this alone, would suffice to make him the legitimate owner. Following in the footsteps of Locke, libertarian philosophers (Rothbard 1962, 1970, 1982a; Hoppe 1989, 1993; Nozick 1974; Epstein 1985) did not attempt to determine who was the Coasian "most efficient user" of a good, or "least cost avoider" of an accident as a means of assigning rights, blame or punishment. Instead, resort to property rights and strict liability was made.

But all this changed with Coase and his adherents. In this new view, property rights became the handmaiden of so called economic efficiency. The very determination of private property became dependent on cost considerations. Another way to put this is that in the pre-Coasian days, property rights were exogenous to economics. Thanks to Coase and his followers (Demsetz 1966, 1967; Posner 1986; Landes 1971, 1973, 1979), [1] this is no longer true. Now, if anything, economics is the independent variable; property rights have become indigenous on it.

Further, reciprocity was nominated to take the place of previously sacrosanct causal relationships. It was no longer true that the factory that emitted sparks which set ablaze the farmer's crops was at fault.[2] The latter became equally blameworthy, or rather, since it became no longer appropriate to relegate blame to anyone, responsible. Had the farmer not planted in that spot, no harm would have befallen him. Says Coase (1960, p. 37), "[it] is not that the man who harbors rabbits is solely responsible [for damage to neighboring farms]; the man whose crops are eaten is equally responsible."

And what was the advice to the judiciary which emanated from this new outlook? Judges were to rule in such a way as to maximize the value of economic activity. Under a zero transactions cost regime, it really wouldn't matter—as far as the allocation of resources was concerned—which of two disputatious parties received the rights in question. If they were given to the person who valued them more, well and good. If not, the loser would be able to pay off the winner so as to enjoy their use. But in the real world of significant transactions costs, in contrast, the juridical determination was absolutely crucial. Whatever the judge decided would endure; there could be no opportunity for mutually beneficial exchange, *ex post*.

From these deliberations emerged, especially in the writings

of his followers, the "Coasian" public policy recommendation. The jurist must ignore tradition, property rights, ownership, and the niceties of Lockean homesteading theory upon which all were based, and instead make his award solely in order to maximize wealth. That is, he should find in favor of the disputant who values the rights in question more strongly; the one who, had he lost the court battle in the zero transactions cost world, would have successfully bribed the winner.[3]

Demsetz (1967), for example, went so far as to apply this to matters of freedom. In his view, it doesn't matter—for purposes of resource allocation—whether the army hires the recruit (the volunteer military) or commandeers him (the draft), but then allows him to buy his way out of this predicament.

There is an alternative way of characterizing Coase's very interesting contribution to economics. He maintained, contrary to the prevalent (Pigovian) belief at the time,[4] that under certain circumstances a judicial decision concerning property rights would not affect the allocation of resources.

Take the case of the sparks from the factory which set afire the farmer's flowers. The farmer sues, demanding among other things that the factory add a smoke prevention device, so as to protect his private property rights. Coase argues that under zero transactions costs assumptions, resource allocation—whether or not the smoke prevention device is used—will not depend upon the court's finding. If the factory values the right more, it will use that right if its suit finds favor with the judge. That is to say, it will not install the smoke prevention device. Under a negative ruling to it, the factory will purchase these rights from the farmer.

To be sure, the decision from the bench would have *some* effect. States Coase (1960, p. 488), it "would not affect the allocation of resources, but would merely alter the distribution of income as between the two parties, plaintiff and defendant." (Henceforth, I shall refer to this as statement "A.") In other words, the property rights finding of the court may be irrelevant to resource allocation, but it would be of great importance to the wealth positions of the two legal opponents.

Walter Block

The next installment in this brief history of the debate concerns my criticism of Coase and Demsetz (Block 1977a). In that article I attempted to distance myself from Coase on several points. I

took the position that not only was Coase required to assume zero transaction costs in order to reach his conclusion, he also needed to make a supposition about the form in which the wealth was held. I maintained that as long as the values of both sides in the legal dispute were real, or general,[5] that Coase's Theorem was correct. However, if these values were psychic or not general across at least a few people, it was incorrect. Alternatively, I took the position that yet another assumption was required by Coase in order to defend his Theorem; namely, that the values could not be psychic or specific to one particular person.[6]

The question to be emphasized is this. How does the farmer bribe the factory, in the case where the farmer values the crop more than the factory, and the court decides against the farmer? With collateral, real, objective, general wealth at stake, there is no problem. That is, if the crop is *worth something* to the factory, or to someone else, the bribe is easy to finance. The farmer can give part of this crop to the factory. But if this is not true, the bribe cannot occur.[7]

My response (Block 1977a) to Coase and Demsetz made the following points:

(1) It does matter for resource allocation purposes who wins a property rights lawsuit—even under zero transaction costs conditions, even ignoring the wealth effects of the judicial decision. This is because there is no guarantee that the loser will have the requisite funds with which to bribe the victor, even if he indeed values the bundle of rights under contention to a degree greater than his opponent. Coase had supposed that the payment could be financed out of the greater value; but if this took the form of mere psychic income, it would be unable to do any such thing.

(2) The Coasian advice to the judge is arbitrary, and counterproductive. Due to the subjectivity of costs and evaluations (Buchanan 1969; Mises 1963; Rothbard 1977) and to the impossibility of interpersonal utility comparisons (Rothbard 1977), it is inconceivable for anyone, even a magistrate, to know who is the most efficient user, or the least cost accident avoider. It is extremely difficult to foretell, under the zero transaction costs assumption, who would end up bribing whom. To place such a burden on our court system moreover would be to saddle it with the same task so dismally acquitted by the communist central planning boards in the former U.S.S.R., Eastern Europe, and all throughout the third world.

(3) It is morally problematic to overturn property rights, surely a bedrock of western civilization, even if the purpose is benevolent—to promote utility. It is morally questionable to make legal findings not on the basis of justice but rather wealth maximization.

(4) Yes, a tort is reciprocal, or mutually determined, in the narrow sense that if the victim were not present, it could not have occurred. But by that token, there could never be any real crime. It takes "two to tango," so to speak, and without one of the participants, the dance cannot occur. Where is the murderer, rapist or thief who could not make use of this unique legal defense? All he has to do is plead that but for the presence of the victim, the crime could not have taken place; therefore, the victim is actually a contributor to the villainy. Cause and effect, then, not mutual determination or reciprocity, is the only proper basis for settling disputes over personal or property rights.

Harold Demsetz

The third chapter in this tale was written by Demsetz (1979).[8] In it, he accused me of failing to take into account one of Coase's explicitly made assumptions. Were I to have done so, Demsetz challenges, I would not have been able to write my critique of Coase, or at least a large part of it.

In Demsetz's own words (p. 98), "The substantive issue has to do with whether or not the assignment of right ownership will alter the mix of output when 'bargaining transactions . . . are costless [and] changes in the distribution of wealth . . . can be ignored.' Coase and I [with a proviso about 'free riders'] say no; Block says yes. Block then presents some examples that appear to refute our analysis, but which really only violate our explicitly made assumption" Henceforth, I shall refer to this statement as "B." The first thing to notice about B is that it appears without benefit of citation.[9] This makes it difficult to evaluate, because there is no context available in which it can be embedded.

Secondly, A and B are by no means equivalent, although Demsetz appears to treat them as such. The fact that they are not may have led him astray. It is important to realize that Block (1977a) was written in response to a paper which contained A (Coase 1960) not B (Demsetz 1979). Therefore, if A and B are different, while it is of course legitimate and permissible to criticize Block (1977a) for attacking Coase (1960) while violating an explicitly made assumption A, it is by no means permissible to

do so with regard to Demsetz (1979), e.g., B.

So we arrive at the issue of whether A and B are equivalent or not. On the face of it, B seemingly undermines the validity of the criticism I launched against Coase (1960), while A does not. This is because B assumes away the possibility of wealth or income effects while A makes no such stipulation.[10] On the contrary, A specifically mentions that the distribution of wealth *will* change.

Thus Block (1977a) does not violate an assumption made by Coase (1960)—the only article it was criticizing on these grounds.[11] My 1977a article is entirely innocent of Demsetz's charge that it attacked Coase on a ground from which he had explicitly absolved himself. In 1977a I claimed merely that under certain circumstances (the farmer has only psychic assets which are specific to him and are thus not attractive to the factory, or anyone else, as would be general assets which are of value to all or many persons) the farmer will not be able to bribe the factory into using the smoke prevention device in the zero transactions cost world, even though he (subjectively, specifically, psychically) values his flowers or crops more than the cost of the smoke prevention device.

In A, Coase merely states that while different court decisions will imply different states of wealth distribution between the farmer and the factory, the use of the smoke prevention device (resource allocation) is invariant with regard to the juridical finding, again, assuming zero transaction costs. Coase is wrong in this contention, as I claimed in 1977 and still maintain; and my utilization of the distinction between general and specific wealth in no way violates any strictures set up by this author, certainly not in statement A.

Let us put this in other words. In A and B there are two different articulations of what may be roughly called "wealth effects." In A, it involves "the distribution of income as between the two parties." In B it concerns the claim that "there are no wealth effects on the demands for the commodities being discussed. . . . and that changes in the distribution of wealth can be ignored." Although these expressions are interchangeable for Demsetz, they are actually quite different.

Wealth distribution

The first case carries a clear implication. It is that Coase and Demsetz are conceding, for the sake of argument, that there may

well be changes in the distribution of wealth depending upon whether the judge rules in favor of plaintiff or defendant. However, since they have made no claim one way or another on this matter, no allegation, or even proof—that a change in the distribution of wealth from this source actually occurs—can be counted against their hypothesis.

Coase actually does make such a concession. He does so several times in the course of his 1960 article. Clearly, were any critic, such as the present writer, to have upbraided Coase with the fact that changes in the distribution of wealth would result from different court decisions, Demsetz would be correct in asserting that "Block then presents some examples that appear to refute our analysis, but which really only violate our explicitly made assumption" (p. 98).

Now consider the second case referred to by Demsetz: that "there are no wealth effects on the demands for the commodities being discussed" (p. 98). The meaning of this, in contrast to the first case, would appear to be that both plaintiff and defendant will spend whatever additional monies awarded to them by the Coasian judge in exactly the same manner. Therefore, no matter which one wins, the same goods and services will be purchased. Thus, there will be no wealth effects on the demands for the commodities being discussed. Here we find the elements of a completely different charge against Block (1977a). In this case I am not guilty of violating the explicit assumption of Coase and Demsetz that changes in the distribution of wealth would result from different court decisions. Rather, I violate their very different explicitly made assumption that both plaintiff and defendant will spend whatever additional monies are awarded to them by the Coasian judge in exactly the same manner.

Let us now turn to Block (1977a) to see which one (or both) of these violations can be found therein.

In my view, neither error is committed. Paradoxically, the best source of this claim is none other than Demsetz himself. Let us quote him in full on this matter:

> [Block] considers a case involving "psychic income" wherein a smoke prevention device can be installed for $75,000 by a factory which, in the absence of such a device, will ruin a neighbor's flower bed because of smoke pollution. The flower bed is worth nothing to anyone else, but to the neighbor it is worth $100,000 because of sentimental value. The

> factory would not be willing to pay its neighbor more than $75,000, the cost of the smoke cleaning device, for his permission to pollute the air, so, if the neighbor has a right to a soot-free garden, the factory owner would elect to install the smoke cleaning device rather than pay the $100,000 demanded by its neighbor. But if the factory owner has the right to use smoke-producing fuel, the neighbor, being so poor, would be unable (unwilling) to pay the factory owner the $75,000 required to install the smoke cleaning device. With the first assignment of rights, there is a flower garden and no smoke (and there also is less factory output). With the second, there is smoke (more factory output) and no flower garden. The mix of output is contingent on the assignment of rights. True, but only because of the income effect, as can be seen with the aid of figure [1]. (pp. 98, 99)

But Demsetz has misdescribed the case. The flower bed owner is not "unwilling" to pay the $75,000 required to install the smoke cleaning device. Why should he be unwilling? By stipulation, the garden is worth fully $100,000 to him. Surely—in the case under discussion where the court assigns the right to pollute to the factory owner—if the farmer had such an amount of funds available to him, he would gladly pay the $75,000 in order to forestall damage to his property valued at $100,000. In this way he could earn a profit for himself of $25,000, the difference between what he must pay to protect his flower bed, and its value to him.

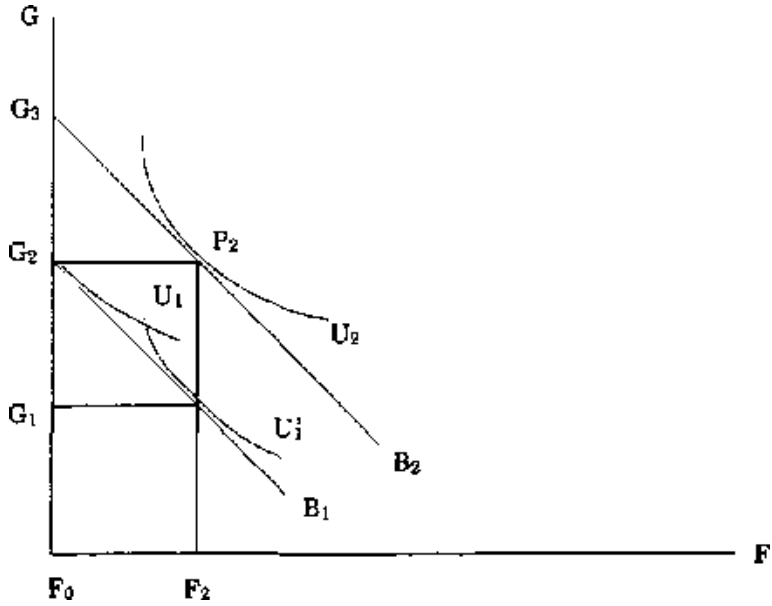

Figure 1
Rights Assignments and Income Effects
Source: Harold Demsetz, "Ethics and Efficiency of Property Rights Systems," in *Time, Uncertainty and Disequilibrium: Explorations of Austrian Themes*, Mario Rizzo, ed. (Lexington, Mass.: D. C. Heath, 1979), p. 99.

Income effect

Let us now discuss the income effect. A careful reading of Block (1977a) indicates not that there *is* an income effect (which might conceivably violate the Coase-Demsetz explicitly made assumption), but that there is *not*. After all, the flower bed owner starts out with *no income*, and never gets any, at least in the situation where the court awards pollution rights to the factory owner. It is difficult to see how an income effect can be constructed out of such paltry raw material.

Nevertheless, we can try. What of the "income effect" that can be construed to take place between the situation where the court awards pollution rights to the factory owner, and the one where these rights are awarded to the owner of the flower bed? In the former case, the florist has absolutely nothing. He loses his $100,000 flower bed, because he lacks the $75,000 with which to bribe the proprietor of the factory. In the latter case, he retains the use of this $100,000 flower bed.

One could conceivably call this an "income effect." There are reasons for and against. On the pro side is the fact that the

flower lover gains a value, to himself, of $100,000, as between the cases where he is not, and is, awarded the requisite rights. On the con side is the fact that there is no real income or money or wealth involved. It is all a psychic value.

But it is not really important whether one chooses to call this an income effect or not. The issue between Demsetz and myself is whether or not Coase anticipated this sort of "income effect," in which case Block (1977a) has indeed violated explicitly made assumptions. And, as we have seen, this charge cannot be substantiated.

Coase stipulated only that wealth effects as a result of court decisions be ruled out of consideration. I didn't consider them. Instead, I focussed on something entirely different: that one of the parties not have sufficient funds with which to make the requisite bribe. Demsetz conflates the two. *That* is the substantive issue between us.

Obstacles

Now for an even greater challenge. We have seen that Block (1977a) can pass muster with regard to A. Can it do so even for B?

At first glance, this is an impossible task. We have seen that B demands that we ignore wealth distribution changes, while my 1977a article depends intimately upon certain states of the distribution of wealth. These are dependent on court decisions which, in turn, are intimately associated with wealth effects. Nevertheless, from this rather unpromising beginning, it is still possible to reconcile B with Block (1977a).

It can be done by realizing that B is not a statement about comparative statics, as Demsetz seems to think. For him, the problem with Block is that it compares two states of the world: one where the farmer has the right to impose a smoke prevention device on the factory, and one where he does not. Since there is indubitably a change in the wealth position of the farmer when he goes from one of those states of the world to the other, Demsetz sees a violation of B (changes in the distribution of wealth can*not* be ignored) and cries "foul!"

But Demsetz misinterprets Block. This article does not require any dependency on changes in wealth. All it says is that —by use of psychic or specific wealth—a scenario can be concocted in which the Coasian Theorem no longer holds true. No *change* in wealth is required for this scenario to obtain. All

that is necessary is that there be an otherwise penniless farmer who derives more value from his flower bed than the cost of installing a smoke prevention device, and cannot bribe the factory to install it, even though he inhabits a zero transaction costs world. He cannot do so, to repeat, because even though his psychic income is $100,000, and the smoke prevention device costs a mere $75,000, this psychic income is specific to him and him alone. It does not translate into a value recognized by anyone else, particularly including the factory owner. He cannot sell this flower bed to a third party, and use the proceeds to bribe the factory owner. This is because the flower bed, his only possession, is not valued by *anyone* else besides himself.

It is impossible for him to "give up $75,000 of the other goods" (as claimed by Demsetz in his indifference curve analysis) because he simply does not have such funds available to him. We conclude that property rights determinations are relevant to resource allocation. That property rights are irrelevant depends upon the loser being able to bribe the winner of the lawsuit; if he is unable to do so, the entire scenario does not arise.

The geometry

This is why Demsetz in figure 1 (p. 99) is misdirected. It depends, crucially, on a nonexistent income or wealth effect. How else can one explain the move in budget lines from G2B1 to G3B2? But there are additional problems with this diagram, and with the analysis that accompanies it.[12] It clearly indicates that Demsetz has not applied the difference between general and specific wealth. Consider his statement:

> If the neighbor has the right to soot-free air, he consumes P2 containing F2 of flowers and G2 of other goods. But since he can sell the right to pollute the air for $75,000, he also can consume no flowers, F0, and G3 of other goods, where G3 - G2 equals $75,000 worth of other goods. He therefore confronts a budget line, B2, that passes through P2 and G3.
>
> The second rights assignment alters the budget line on which he can operate. Given his income and no right to soot-free air, he can consider G2 of other goods and enjoy no flowers or he can give up $75,000 of the other goods, consuming only G1 of

> these but increase his garden to F2. The second rights assignment, therefore, has reduced his budget line to B1. (p. 99)

The first rights assignment G3B2 is straightforward. As we have seen, I do not criticize Coase only with regard to his case where the farmer is given the right to clean air. He need not do any bribing, here, so no problem arises. The second rights assignment, G2B1, however, is highly problematic. The difficulty is that my assumption (Block 1977a) is that the farmer has no other income, wealth or goods. It is impossible, then, for him to "give up $75,000 of the other goods," because he simply does not have *any* amount of goods available to him (apart from his flower bed), let alone an exalted amount such as $75,000. I therefore continue to maintain that property rights determinations are *relevant* to resource allocation, at least under present assumptions. The Coasian claim to the contrary depends, once again, upon the loser of the judicial decision being able to bribe the winner of the lawsuit; since he is unable to do so, the situation described by Demsetz does not occur.

On the assumption, just for argument's sake, that indifference curves have a legitimate role to play in economics, how can Demsetz's figure 1 be altered so as to be consonant with the analysis of the situation? It is very straightforward. G2P2 should be converted into the x axis. All else on the diagram would simply disappear. My assumption is that the farmer has no money at all and only one flower bed, for which no one else will give anything at all in trade. Therefore, there *is* no budget line. There *are* no terms of trade offered to the farmer. U2 remains, only the part of it above G2 (now the x axis) depicting a "corner" solution at P2: flowers, but no money.

Twist and turn as one may, it cannot be denied that property rights are relevant to resource allocation. Even with zero transaction costs, the entire bribery scenario can never take place, and it is this upon which the Coasians rely in order to maintain the contrary position.

Let us summarize to this point. We have claimed that Demsetz makes two mistakes. First, he falsely ascribes to me the obligation of overcoming objection B against Block (1977a). But I meant this article as a criticism of the Coasian A, not the Demsetzian B. Second, more radically, he fails to show that even B can be used, successfully, to disparage that article. He seems unwilling to apply the distinction between general and specific

wealth, and between comparative statics and an unchanging static situation, to this case.

Contrary to fact conditional

This is a rather complex issue. In order to further clarify, let me attempt yet another way of explicating my side of this debate. What *would* I have had to have said were Demsetz to be correct in his criticism that I was attacking Coase on a point of which he was fully aware, and indeed had specifically assumed away in his analysis? To reiterate, Coase said that assuming zero transactions costs, resource allocation would be invariant with regard to the way in which the judge decided nuisance cases (statement A).

Demsetz would have been correct had I attributed to Coase the following: that it doesn't matter, as far as matters of *equity* are concerned, which conclusion the judge reaches; that the economic welfare of each litigant is the same whether the judge finds in his favor or not; that litigants are indifferent to judicial decisions. But for Coase's specific assumption, that Chicago economist *would* have left himself open to such an interpretation. However, because of the fact that this Nobel prize winner did indeed make this assumption, he is guiltless of this charge.

I would have had to have said something along these lines in order to be guilty of the charges leveled against me by Demsetz. In actual point of fact, however, I said no such thing. Instead, I claimed that Coase's mental experiment couldn't work because it depends upon the farmer or the factory *having* an income or wealth with which to bribe its opponent, should it find itself on the losing side of the courtroom battle. If it is only psychic income that the loser can rely upon, no bribe can be financed. But as the Coasian insight depends crucially upon this bribe, the whole scenario falls apart in the absence of the necessary funding.

Even though mistaken, one can readily discern why Demsetz should have confused these two very different concepts. After all, both employ wealth, or income. But we must not lose sight of the fact that they are, at the end of the day, very different. One, Coase's, deals with questions of equity. The other, mine, deals with Coase's major and paradoxical finding, that under the assumption of zero transaction costs, court decisions do not affect resource allocation. Coase, unfortunately, needs one more assumption in order to make good on his discovery: that the benefits to both parties in the dispute must be real; they cannot

consist of psychic income alone. But this was precisely my point in Block (1977a).

Background

It is now time to consider several aspects of Demsetz's article apart from those relating to the flower bed-psychic income example. But before we begin, a little bit of context might be in order.

There are several issues separating Demsetz and myself (more broadly, these distinguish from one another the Chicago positivist School of Coase, Posner, Demsetz, et al., and the Austrian-Libertarian School led by Murray Rothbard).

A crucial one is how property rights *should* be defined, in general and in particular in the (real world) situation where transaction costs make post definitional bargaining difficult or impossible. Demsetz's suggestion is that they be defined in such a way as to maximize total wealth. My contention is that the rules of homesteading and voluntary trade be employed instead.

But this is merely my own way of characterizing the dispute. Demsetz sees the matter quite differently. In his view, my discussion rests on "emotionalism," and "strong ethical feelings as to how property rights *should* be defined" (p. 100). Instead of using reason, my views are supported by little or nothing more that the "definiteness with which they are held" (p. 100). In contrast, he is not "emotional," nor given to normative "should" statements. He has far more in his intellectual arsenal than mere definiteness. Further, and perhaps even worse, I employ easy examples to buttress my views, particularly the right to be free of the draft.[13] The remainder of Demsetz's (1979) essay is devoted to correcting my many errors and oversights. Let us consider his objections in some detail.

Competition and sports

He starts off by approvingly quoting Frank Knight. According to Knight, there is a strong similarity between "competitive business" on the one hand, and "the sporting view of life" on the other. Both have "a detectable impact on our basic psychological drives" in that in a society earmarked by them, people go out and emulate, or copy others, goal of getting ahead, or succeeding.

But the Knightian analogy between business competition and

sports is mistaken. Business competition is a positive sum game, while sports are a zero sum game. Business consists of the concatenation of trades (purchases, sales, hirings, etc.) in a given society. As such, both participants who engage in any particular business arrangement gain, at least in the *ex ante* sense. That is, neither would have agreed to commercially interact with the other did he not expect to improve his condition thereby. In the sporting arena, in contrast, benefits for one do not necessarily benefit the other.[14] On the contrary, when one team scores a goal, for example, far from the other team also gaining an advantage, it actually loses out.[15]

There is a second error as well. Citing sociobiological findings, Demsetz is led to assert that basic inner drives cannot "be modified significantly by the choice of institutional environment" (p. 97). However, unless "significantly" is used tautologically to deny that different economic arrangements can ever alter people's psychological states, it would appear that there is ample evidence to the contrary. After 70 years of communist rule, for example, the tendency of people in the former U.S.S.R. to "barter and truck," in Adam Smith's felicitous terminology, has been vastly attenuated. At the very least, it has been perverted into something very different than what once it was, or, better yet, what it might otherwise have been. Consider also the different psychological states regarding commercial risk and endeavor that now—in 1995—exist in East and West *Germany*. Before 1945, the inhabitants *of these* two areas were one virtually homogeneous people. After experiencing the Sovietization of their economy, there are few in the east of this country who retained the entrepreneurial spirit that characterized the original population, but this still prevails to a great degree in the West.

There is yet another difficulty in Demsetz's introduction: he pays insufficient attention to the distinction between the normative and the positive. It might be too harsh to charge that he totally conflates the two; on the other hand, he seems to think that "ethical judgments about economic organization" are inextricably connected to the "Austrian economics [which] centers on the praxeology of human action" (p. 97). The truth of the matter, however, is that "the simplistic faith of a few libertarians" (p. 98) is totally a normative concern, while, in contrast, the economics of the Austrian school is totally positive (Egger 1979, p. 119; Rothbard 1973a; Block 1975). Also, Demsetz uses his introduction to take a gratuitous swipe at

religion (p. 98); but the less said about this the better.

Austrian Pure Snow Trees

Demsetz offers the case of the Austrian Pure Snow Trees, which are owned by a religious sect. This resource is the only cure for cancer, but these islanders will not allow it to be used for that purpose, reserving it instead for religious worship.[16]

Demsetz then asks what I consider to be a very misleading rhetorical question. His challenge: Is it really "'evil and vicious' to believe it would be preferable for someone else to own the right to this ingredient?" (p. 100).

But it is not at all my contention that this state of the world would not be preferable. On the contrary, given his highly emotional example, it is indeed hard to resist the notion that it would be preferable if the trees were used as a cancer cure.

Emotionalism can be a double edged sword, however. As long as our intuitive imagination has been unleashed by Demsetz in this creative way, why not push the envelope a bit? Consider, then, the case where the views of this religious sect are absolutely correct! That is, if the trees are torn down for so idolatrous and unimportant a purpose as curing cancer, then we'll all be consigned to Hell forever. Wouldn't it *then* be "intuitively appealing" to allow the islanders to continue their ownership of these trees?[17]

But this is all somewhat beside the point. For my contention had nothing to do with preferability. Rather, it focussed on what the law should be.[18] It held, specifically, that private property rights are sacrosanct, and should not be overturned, even for "good" purposes. Even though he does not state the issue in this manner, it will be interesting to interpret Demsetz as if he were making the claim not merely that it would be preferable to divert the Pure Austrian Snow trees from prayer to curing cancer, but that the law *should* be employed in this manner; or, at the very least, that seizing the trees is permissible, and should not be interfered with.

It is "interesting" to interpret Demsetz in this way, even though he might resist, for the alternative renders his position totally unintelligible. If all he wishes to assert is that it would be preferable that the Austrian Pure Snow Trees be allocated to curing cancer, then we can perhaps agree with him if the religious fanatics have a mistaken theology, and disagree if they are correct. But all the preferring in the world will not change

reality in Demsetz's health oriented direction,[19] For this, the forces of law and order must swoop down on the recalcitrant zealots,[20] and compel them to yield their Austrian Pure Snow Trees to the medical profession. That is to say, Demsetz must claim that the law *should* be written so as to attain this result, if that is his actual goal.

But if he does so, he is just as un-value-free, and "emotional," as he accuses me of being, *Demsetz* would then be revealing himself as a person with "strong ethical feelings as to how property rights *should* be defined in such cases" (p. 100).

Even mere preferability, let alone legal justice, runs into problems of interpersonal comparisons of utility. As we have seen, there is no warrant, anywhere within the corpus of value-free economics, for us to compare the utilities of one group of people—e.g., "worshippers" with another, "cancer patients"—and to claim that one outweighs the other. Demsetz as a private citizen may engage in all the preferring he wants; but it is impermissible for him to do so *qua* economist.

In his view, "the instrumental nature of property rights is made clear in this Austrian Pure Snow Trees example" (ibid.). Perhaps. A better description for property rights in his philosophy would be "provisional." That is to say, when a "better" use for someone's property is found—curing cancer instead of worshipping—there is at least a *prima facie* case for re-ordering the relevant property rights. He states, "A question of the ownership of this ingredient, unavailable elsewhere, arises" (ibid,). Interesting word, "arises." How is this to be distinguished from advocacy of theft? Can we in this vein say that during the Los Angeles riots of 1992 the question of the legitimate ownership of all of those looted television sets "arose?"

Ethical superiority?

Consider now my claim that "It is the gardener who should have the right to soot free air, and the potential [military] recruit who should have the right to his freedom" (p. 100). Demsetz is highly critical. He states: "One is entitled to an explanation of why these assignments of property rights are ethically superior to their alternatives" (ibid.). We already know of the ethical perspective from which Demsetz chooses between these options: pick that which maximizes wealth or utility, or income. And as we have seen the Achilles heel of his vision—it founders on the rock of interpersonal comparisons of utility—we do well to follow

Demsetz's advice and to offer an explanation of our own.

At one level, the most unsophisticated and commonsensical, we have the right to our freedom, and to not have our lungs invaded by soot particles, because of Adam Smith's "Obvious and natural and simple system of liberty" ([1776] 1965). If a woman "owns her own body," as most people would concede, then so, too, do men. If this is true, then slavery, or the draft, is illegitimate. For it means that outside forces can dictate to the supposed owner of the body in question.[21] At another level, people should be free and secure in their persons, at least in the U.S., because our constitution guarantees this.

But perhaps the most powerful basis on which this claim to freedom can be defended is the philosophical. The freedom philosophy is ethically superior to all alternatives because is it necessitated by the laws of logic. Demsetz's position, in contrast, is untenable because it commits a logical contradiction.

This UCLA economist considers himself to be a rational man. He is willing to *argue* his differences with me. Were this not so, instead of writing an article critical of my own, he would have sought to physically abuse me. But in taking this eminently sensible, legal and moral tack, he has necessarily associated himself with certain positions. When the implications of these are elaborated upon, it will be seen that the arguments he uses to refute me are rendered invalid by his very decision to employ argumentative methods against me in the first place.

By engaging in only verbal fisticuffs, and eschewing physical ones, he has conceded my right to my own body; to be secure in my person; to be free of physical invasion. In a word, by the choices Demsetz has made, he has left himself open to the interpretation that he *respects* the freedom of others. Since "actions speak louder than words," we are entitled to discount his anti-freedom verbiage, and to focus on his pro-liberty behavior.

Hoppe explains:

> First, it must be noted that the question of what is just or unjust—or, for that matter, the even more general one of what is a valid proposition and what is not—only arises insofar as I am, and others are, capable of propositional exchanges, i.e., of argumentation. The question does not arise vis-à-vis a stone or fish, because they are incapable of engaging in such exchanges and of producing

validity claiming propositions. Yet if this is so—and one cannot deny that it is without contradicting oneself, as one cannot argue the case that one cannot argue—then any ethical proposal, as well as any other proposition, must be assumed to claim that it is capable of being validated by propositional or argumentative means. . . . In fact, in producing any proposition, overtly or as an internal thought, one demonstrates one's preference for the willingness to rely on argumentative means in convincing oneself or others of something; and there is then, trivially enough, no way of justifying anything, unless it is a justification by means of propositional exchanges and arguments. But then it must be considered the ultimate defeat for an ethical proposal if one can demonstrate that its content is logically incompatible with the proponent's claim that its validity be ascertainable by argumentative means. To demonstrate any such incompatibility would amount to an impossibility proof; and such proof would constitute the most deadly smash possible in the realm of intellectual inquiry.

Secondly, it must be noted that argumentation does not consist of free-floating propositions, but is a form of action requiring the employment of scarce means; and furthermore that the means, then, which a person demonstrates as preferring by engaging in propositional exchanges are those of private property. For one thing, obviously, no one could possibly propose anything, and no one could become convinced of any proposition by argumentative means, if a person's right to make exclusive use of his physical body were not already presupposed. It is this recognition of each other's mutually exclusive control over one's own body which explains the distinctive character of propositional exchanges that, while one may disagree about what has been said, it is still possible to agree at least on the fact that there is disagreement. And obvious, too: Such property right in one's own body must be said to be justified *a priori*. For anyone who would try to justify any

norm whatsoever would already have to presuppose an exclusive right to control over his body as a valid norm simply in order to say "I propose such and such." And anyone disputing such right, then, would become caught up in a practical contradiction, since arguing so would already implicitly have to accept the very norm which he was disputing.

Furthermore, it would be equally impossible to sustain argumentation for any length of time and rely on the propositional force of one's arguments, if one were not allowed to appropriate next to one's body other scarce means through homesteading action, i.e., by putting them to use before somebody else does, and if such means, and the rights of exclusive control regarding them, were not defined in objective physical terms. For if no one had the right to control anything at all except his own body, then we would all cease to exist and the problem of justifying norms—as well as all other human problems—simply would not exist. Thus by virtue of the fact of being alive, then, property rights to other things must be presupposed to be valid, too. No one who is alive could argue otherwise.

And if a person did not acquire the right of exclusive control over such goods by homesteading action, i.e., by establishing some objective link between a particular person and a particular scarce resource before anybody else had done so, but if, instead, latecomers were assumed to have ownership claims to things, then literally no one would be allowed to do anything with anything as one would have to have all of the late-comers' consent prior to ever doing what one wanted to do. Neither we, our forefathers, nor our progeny could, do or will survive if one were to follow this rule. Yet in order for any person—past, present or future—to argue anything it must evidently be possible to survive then and now. And in order to do just this property rights cannot be conceived of as being "timeless" and non-specific regarding the number of people concerned. Rather, they must necessarily be thought of as originating through acting at definite

points in time for specific acting individuals. Otherwise, it would be impossible for anyone to first say anything at a definite point in time and for someone else to be able to reply. Simply saying, then, that the first-user-first-owner rule of libertarianism can be ignored or is unjustified, implies a contradiction, as one's being able to say so must presuppose one's existence as an independent decisionmaking unit at a given point in time.

And lastly, acting and proposition-making would also be impossible, if the things acquired through homesteading were not defined in objective, physical terms (and if, correspondingly, aggression were not defined as an invasion of the physical integrity of another person's property), but, instead, in terms of subjective values and evaluations . . .

By being alive and formulating any proposition, then, one demonstrates that any ethic except the libertarian private property ethic is invalid. Because if this were not so and late-comers were supposed to have legitimate claims to things or things owned were defined in subjective terms, no one could possibly survive as a physically independent decisionmaking unit at any given point in time, and hence no one could ever raise any validity claiming proposition whatsoever . . .

As regards the utilitarian position, the proof contains its ultimate refutation. It demonstrates that simply in order to propose the utilitarian position, exclusive rights of control over one's body and one's homesteaded goods already must be presupposed as valid. And, more specifically, as regards the consequentialist aspect of libertarianism, the proof shows its praxeological impossibility: the assignment of rights of exclusive control cannot be dependent on the—"beneficial" or whatever else—outcome of certain things; one could never act and propose anything, unless private property rights existed already prior to any later outcome. A consequentialist ethic is a praxeological absurdity. Any ethic must, instead, be "a prioristic" or "instantaneous," in order to make it possible that

> one can act here and now proposing this or that, rather than having to suspend acting and wait until later. Nobody advocating a wait-for-the-outcome ethic could be around anymore to say anything if he were to take his own advice seriously. And to the extent that utilitarian proponents are still around, then, they demonstrate through their actions that their consequentialist doctrine is, and must be, regarded as false. Acting and proposition-making requires private property rights now, and cannot wait for them to be assigned only later. (Hoppe 1993, pp. 204–7)

What Demsetz does in speaking out against freedom and property rights, but *acting* in a manner compatible with them, is to engage in a performative contradiction. This is logically identical to a person stating "I am unconscious." Here, behavior belies a mere verbal claim. Demsetz's view of property rights, is, of course, a utilitarian one. As he sees things, one cannot define matters in this regard "a prioristically." Rather, they must be defined in terms of beneficial consequences; in his case, wealth maximization.

You got to have heart

Let us extend the Demsetzian argument in yet another dimension. Suppose that it was not the islanders's trees that could cure cancer, but rather their hearts. That is, the only way to save the sufferers from this disease would be to kill, not the Austrian Pure Snow Trees, but their owners, the members of this religious sect, and then to take their hearts, chop them up, and feed them to cancer victims. Would Demsetz ("emotionally") support this "modest proposal" to do just that? It is hard to say. From his perspective, he would have to ascertain the answer to a series of empirical questions before he could vouchsafe us an answer: What is the rate of transformation between dead cultists and live cancer patients; e.g., how many islanders would have to be murdered (killed? final solutioned? homesteaded? harvested?) in order to save how many cancer victims? Which group has higher incomes? Which has more members? Would this act set up anti-wealth precedents for the future? Who are more productive—wealth maximization is the criterion—the heart "donors" or recipients? The only constant in the world of

Demsetz (the writer, that is, who ideologically contemplates the justification of theft, enslavement, murder; not the man whose actions show he refrains from engaging in initiatory violence) is the overwhelming need to increase wealth.[22]

Ultimately, there are only two ways of settling such problems. All others are merely combinations and permutations of these two. On the one hand, there is a provisional or instrumental property rights system. Here, holdings are secure only as long as no one can come up with a plausible reason for taking them away by force. Under this system, either dictators or majorities (or dictatorial majorities) hold the key to property rights. The difficulty is that there are no moral principles which can be adduced to derive any decisions. Presumably, utility or wealth or income maximization is the goal; but due to the utter impossibility of interpersonal comparisons of utility, this criterion reduces to arbitrariness.

On the other hand is a thoroughgoing and secure property rights system. Here, one owns one's possessions "for keeps." The only problem here is the temptation to overthrow the system in order to achieve some vast gain, such as the cure for cancer.[23] But these temptations are easily resisted as they are inevitably imaginary and artificially constructed. We have yet to be presented with a real world example where there is a clear cut case for massive property rights violations.[24]

Note how far from reality Demsetz must remove himself in order to manufacture an example that is intuitively consonant with his support[25] for what in any other context would be considered murder (hearts) or theft (trees) or slavery-kidnapping (draft).[26] It is perhaps possible—in the sense that it would not be logically contradictory—to cite an actual case where a great boon to millions of people is denied by a recalcitrant minority, on seemingly frivolous grounds.[27] In very sharp contrast indeed, resort need not be made of fanciful examples to defend the libertarian vision.

Here is another problem. It is Demsetz's view that in the world of zero transaction costs, it doesn't matter (for resource allocation purposes, not for the distribution of wealth) who gets the cancer cure trees. Surely in this case transaction costs are very low. There are very few worshippers. It is just a small cult. They are all located on one small island. (If nothing else, the world wide publicity attendant upon the discovery of the magic trees would undoubtedly reduce transactions cost to near zero.)

If we wish, we may even suppose that there is only *one*

worshipper (to get closer to the case of the single farmer with the flowerbed). Under these conditions, Demsetz is logically obliged to maintain that if the Deity is more important than physical health, the Pure Austrian Snow trees will (and *should*) continue to be utilized for prayer; on the other hand, if the cure is worth more than the worship, the trees will (and *should*) be used for medicinal purposes. In any case, there is no case for forcibly transferring these trees from the cultists to those afflicted with cancer. The "market" will tend to ensure that the Austrian Pure Snow Trees will come to be owned by those who value them most.

By use of this example we have furnished ourselves with yet another refutation of the Coase Theorem. If under zero cost conditions the sale from islanders to doctors does not take place on its own, this is *prima facie* evidence for the claim that the trees are worth more to the worshippers than to the victims of cancer. A cancer cure, after all, can only improve the body. Worship aims higher, at the soul.

To be sure, Demsetz asserts that "the religious sect will in no way, for any compensation, allow that ingredient to be extracted" (p. 100). So what? On his own premise, this just shows that the worshippers value the Austrian Pure Snow Trees more than alternative users. If true, this cuts against his own claim that resource allocation is invariant with respect to decisions as to property rights, given zero transaction costs.

In contrast, the libertarian need ask none of these questions. For this philosophy it is sufficient that the religious fanatics, not the cancer victims or their agents, own the curative hearts, or the Austrian Pure Snow Trees. And it really doesn't matter whether it is body parts, trees, or anything else that is the property in question.

There is yet another problem with Demsetz's analysis of the Austrian Pure Snow Trees. And this difficulty is pinpointed by no less an authority on property rights theory than Richard Posner (1986). According to him as long as there are zero transaction costs, there is no warrant for seizing the property of another. On the contrary, this is the purpose of markets: to transfer goods from those who value it less to those who value it more.

He states:

> The landowner's right to repel a physical intrusion in the form of engine sparks is only a qualified right. The intruder can defeat it by showing that his

> land use, which is incompatible with the injured landowner's, is more valuable. But if your neighbor parks his car in your garage, you have a right to eject him as a trespasser no matter how convincingly he can demonstrate to a court that the use of your garage to park his car is more valuable than your use of it.
>
> The difference between the cases is, at least on a first pass at the problem, the difference between conflicting claims and conflicting uses. In general, the proper [because cheaper and more accurate] method of resolving conflicting claims is the market. If your neighbor thinks your garage is worth more to him than to you, he can pay you to rent it to him. But if he merely *claims* that he can use your garage more productively, he thrusts on the courts a difficult evidentiary question: Which of you would really be willing to pay more for the use of the garage? In the spark case, negotiation in advance may be infeasible because of the number of landowners potentially affected, so if courts want to encourage the most productive use of land they cannot avoid comparing the values of the competing uses. (Posner 1986, pp. 48–49)

So there we have it. If Posner, another Coasian traditionalist, is correct, Demsetz's critique of my article cannot be sustained. For the garage and the snow trees examples are directly analogous. One must, according to Posner, *convince* the garage owner to rent it to the would be user. If one cannot do so, one must do without the services of the garage. The clear implication is that this applies as well to the cancer victims. If they can convince the religious sect to sell them the Austrian Pure Snow Trees for medicinal purposes, well and good. If not, and Demsetz posits this, then, at least according to Posner, the religious group has the "right to eject [the cancer victims] as a trespasser no matter how convincingly [they] can demonstrate to a court that the use of the [snow trees to cure cancer] is more valuable than your use of it" for purposes of prayer. Demsetz's argument, then, is not only with me. It is also with Posner.

Tennis, Anyone?

Next, consider Demsetz's analysis of the tennis game. Here, he attempts to show that my philosophy cannot reconcile the demand for noise on the part of tennis players with that for peace and quiet on the part of would be sleepers, while his Chicago Law and Economics perspective can accomplish this task.

As he sees this matter, there really is no debate at all. The *only* way to settle the dispute between tennis players and sleepers is through the use of the Coase-Demsetz insights. All that needs to be done is to determine the value to each side of daytime and evening accommodation, and (on the assumption of high transaction costs which preclude rearranging property rights) have the judge rule in such a way that the group which benefits more attains the property rights in question. In that way wealth will be maximized, and resources used "efficiently."

Since, in Demsetz's opinion,

> the dollar value of benefits of assigning rights over noise levels during nighttime hours to would-be sleepers *plausibly* exceeds the dollar value of costs thereby imposed on would-be nighttime tennis players (p. 101, emphasis in original),

the decision is easy and straightforward. Only an Austrian Pure Snow Tree cultist could fail to see this: grant the after dark noise rights to the sleepers.

> Similarly, the assignment to tennis players during daytime hours of the right to control noise levels yields a dollar value of benefits that exceeds the dollar value of costs imposed on neighbors. (ibid.)

So, give the nod to the netmen during the day.

But there are problems with this. First is the issue of information. How is the judge supposed to know who values which asset more highly?[28] We have stipulated that there are no possible markets, given out of reach transaction costs. In their absence, such a determination is impossible.

Yes, it seems reasonable to suppose that people would rather sleep at night and play tennis during the day. But is this always so? Might there not be "night people" who prefer the exact opposite? If so, wouldn't Demsetz's advice to the court lead to wealth reduction, and *in*efficiency?

Note that when discussing the night situation, Demsetz only

goes so far as to say that it is *plausible* that the sleepers value the midnight hours more than the jocks. However, when it comes to the hours of sunlight, there is no modifier at all. Demsetz in this case contents himself with the claim that during these hours the right to control noise "yields" more to the racket wielders than to the pillow wielders. Why the difference? Is it that Demsetz mentions the evening case first, and is tentative about this somewhat dubious position, as well he should be, but then gets into the "rhythm" of the thing, and by the time he reaches the daylight hours, has picked up some momentum, and is therefore now more sure about who values what to a greater degree? If so, this seems rather a weak foundation on which to base the edifice of property law. Sure, it is "plausible" to make the Demsetzian supposition; but the very opposite is "plausible" as well. Out of such raw material it is rather difficult to construct an edifice that will withstand the rigors of everyday events.[29]

Not content to criticize my tennis game, Demsetz throws his racket at Rothbard as well. He castigates his views about homesteading and original ownership as "hopelessly superficial and vague." He claims that "such a criterion (could not) be applied to the conflict over decibel levels between would-be tennis players and sleepers" (p. 107).

How would Rothbard's philosophy work in the present case? Simple. Whoever "got there" first would decide whether tennis could be played at night or not.

For example, consider town A, which was first settled by night owls. They sleep all day long. But when the sun sets, the inhabitants come sailing out of their homes, ready to do battle across the tennis net. Sleep? Not in town A—at least not at night. There must be a vampire gene in there somewhere.

The point is, from the Lockian-Rothbardian perspective, the after dark athletes have *homesteaded* the rights to make noise during the evening. But not any old noise. Only the decibel levels appropriate to tennis. If a normal person moves into town A and complains about nighttime tennis playing, he will have no recourse at law, nor should he. This is because the right to play ball at all hours of the evening is *owned* by the tennis buffs. However, if these people suddenly escalate, and begin playing steel drums at night, or turn their "ghetto blasters" onto high gear at 3:00 a.m., it is *they* who will be guilty of a rights violation, since the night sleepers in town A are entitled to the limited peace and quiet afforded them by tennis, but no less than that.

As well, tennis playing would be strictly prohibited during the day, when the inhabitants of A take to their beds. This is because, by assumption, it is the sleepers who have homesteaded the rights to peace and quiet during daylight hours.

Town B, in contrast, is more "normal." They sleep at night, and work and play while the sun still shines. Anyone engaging in an act of tennis there at night would and should be forced to cease and desist, because he would be trespassing on the property rights of the sleepers who had homesteaded quiet evening hours.

We can now return to the Demsetz critique of my analysis. In his view,

> *Both* rights assignments are equally private and both seem equally productive of individual freedom. Neither exhibits any obvious ethical superiority over the other even when one's preferences are highly weighted in favor of individual freedom. (p. 101)

But it is clear that under the homesteading assumptions we have made, Demsetz is in error. It is not true that *both* rights assignments are compatible with the libertarian code. On the contrary, only one is appropriate for town A, and a very different one is appropriate for town B.

Demsetz claims that "Neither exhibits any obvious ethical superiority over the other even when one's preferences are highly weighted in favor of individual freedom" (p. 101). But in this he is again mistaken. The Lockean system is far more heavily weighted in favor of individual freedom than is that which emanates from the Chicago Law and Economics tradition. In the former case, property rights are "for keeps," as we have seen. Once they are established, through homesteading, no court can trifle with them. All justification of property titles is traceable to this original ownership, plus a legitimate process of transfer (Nozick 1974). In contrast, in the latter case the courts can always break into the voluntary chain of market transactions, and render them asunder. Harking back to the Posner insight, freedom consists of keeping your own garage if you wish, despite the claims of others, no matter *how* plausible. In my philosophy, this is guaranteed. In Demsetz's there is at best a presumption in this direction. But the door is always open. The judge must decide cases on their "merits," with, presumably, little "favoritism" in the direction of extant owners.

Another of Demsetz's parries reads as follows:

> Once a private property rights system is defined . . . it can be expected that subsequent negotiations will *tend* to tolerate only efficient uses of scarce resources. (p. 101)

This, it must be allowed, makes perfect sense. Once property rights limitations are clearly made, the market is perfectly capable of "bartering and trucking" them around in a way that pleases all parties to any agreements. But the key, here, is that property rights be clearly delimited, and reliably be expected to endure. If not, it is extremely unlikely that any deals will be made on the basis of them.

But this is something that Demsetz, at least during his Austrian Pure Snow Trees example, steadfastly refuses to do. There, he eschews "for keeps" property rights systems. If he did so in that context, however, he cannot logically utilize them in the tennis example.

Demsetz dismisses as "hopelessly superficial and vague" Rothbard's eminently sensible view that

> every man has the absolute right of property in his own self and the previously unowned natural resources which he finds, transforms by his own labor, and then gives or exchanges with others. (p. 107)

In particular, Demsetz casts aspersions on the contention that this dictum could be applied to the tennis at night conflict.

However, the libertarian theory of private property rights most certainly can be applied to this case, as to every other. Of course this does not

> mean that everyone has the right to use his person as he pleases, for the very question of defining private property rights is that of determining what can and what cannot be done by one's self. (ibid.)

But Rothbard in the above quoted statement certainly does answer "the very question of defining private property rights." He agrees, moreover, "that [it consists] of determining what can

and what cannot be done by one's self." Demsetz in contrast is simply not open to even consider the common sense notion that homesteading, trade, exchange, etc., can serve as a rule by which boundaries can be placed between one person's fist and another's chin.

Now it is one thing to assert that the libertarian property rights rule is inferior to his own. Demsetz, however, is not merely claiming this. In this section of his paper, he attempts to maintain that the homesteading rule is incoherent; incapable, even, of unambiguously—albeit wrong headedly—settling boundary disputes. But surely this is erroneous. The Lockean-Rothbardian method, whatever its flaws,[30] is after all buttressed by hoary tradition. It, not the Coasian vision, is the established order, at least outside of the economics profession.

Interpersonal Comparisons of Utility

In this section of his paper Demsetz launches a blistering attack on Murray Rothbard. Specifically, Demsetz[31] takes issue with Rothbard's claim that "the free market always benefits every participant, and it maximizes social utility *ex ante*" (p. 105), His criticism is that Rothbard relies on interpersonal comparisons of utility, "a notion fraught with pitfalls and arbitrariness" (ibid.). This is rather remarkable, emanating as it does from a person, Demsetz that is, who advocates allocating property rights on the basis of their divergent values to different people. This, it would appear, is a paradigm case of the pot castigating the kettle for being black.

But even if Demsetz himself relies on interpersonal comparisons of utility, that does not mean that Rothbard is guiltless of this serious charge. Is he? At first glance, the case against Rothbard seems strong. He does resort to the problematic phrase "social utility," and Demsetz, reasonably enough, maintains that "The maximization of 'social' utility implies interpersonal comparisons of utility" (ibid.).

The problem, here, is that Demsetz has not carefully read this quote. He fails to take cognizance of the import of the phrase "every participant." Strictly speaking, there are only *two* participants in every trade. (The free market is no more than the concatenation of all such trades.) And surely, at least in the *ex ante* sense, *both* parties to the commercial interaction benefit. That is, "the free market always benefits every participant" or *all* participants. It is in this sense, and this sense alone, that the

market maximizes "social utility." Interpersonal comparisons of utility simply do not enter the picture. If I buy a newspaper for $1.00, then *both* the vendor and I benefit. We (the two of us, that is) *all* gain. *Every* one of the two of us is better off. Social utility increases. That is, the total utility of myself and the vendor rises. This is not due to a comparison of his utility and my own, but rather to the fact that the utility of *each* of us, in the *ex ante* sense, is enhanced by the trade. In this sense, also, there is unanimity: *all* of the trading partners, me and the newsdealer, the totality of the two participants, unanimously agree to interact in this manner in the expectation of gain.

Demsetz sees matters very differently. For him, the market yields both "beneficial *and* harmful effects" (p. 105). The beneficial effects are easy enough to discern, but from whence spring the harmful ones? For Demsetz, it is not true that there are only two participants in each market engagement. Rather, there are, at least potentially, thousands of third parties: competitors, buyers and sellers of complements and substitutes. As well there are the external[32] diseconomic effects, which give rise to people for whom the traders' utility enters their utility functions in a negative direction,[33] Demsetz correctly sees that if the views of all of these people have to be considered before any trade could take place, that is, if the market prohibited such "harmful effects," commercial activity would quickly grind to a halt, an abrupt one. In his view, a system that did prohibit such harmful effects, "such as one based on the unanimity principle, would be . . . intolerably impractical" (ibid.).

So there we have it. For Rothbard, unanimity is the guarantee that trade will maximize the social utility of the market. For Demsetz, unanimity is the hangman's noose of the business; once give it credence, and there can *be* no market.

How can we decide between these two starkly contrasting views? I propose that we do so based upon the one principle that both these economists claim to hold firm: the impermissibility of interpersonal comparisons of utility. One of their views is compatible with this stricture, and one is not. We will reject the one that is inconsistent with this agreed upon doctrine.

On this basis, it is clear that Demsetz is in logical hot water. On the face of it, his views cannot be reconciled with the impermissibility of interpersonal comparisons of utility. Remember that for him the market is the source of both "beneficial *and* harmful" (p. 105) effects. If we are to be able to

sustain the claim that the market, on net balance, is utility enhancing (let alone maximizing) we must claim that the beneficial effects *outweigh* the harmful ones. But to do any such thing would surely be an instance of interpersonal comparison of utility. Remember also that it is impossible to apply this criticism to Rothbard. For in his view it is not true that there are beneficial and harmful effects which must be weighed, one against the other, thus giving rise to interpersonal comparisons of utility difficulties. On the contrary, the market for him is the unambiguous locus of utility enhancing activity (always in the *ex ante* sense.)[34]

Demsetz tries an end run around this objection. Although valiant, and even brilliant, it unfortunately fails. He argues that his perspective doesn't need to rely on interpersonal comparisons of utility because the market itself will determine whether or not the harm outweighs the benefit. As an example he mentions the introduction of a new product which benefits customers, but hurts their previous suppliers:

> The open market will allow the innovation to succeed only if customers and new product producers . . . are benefitted more than competitive sellers are harmed. If the customers experience a gain worth $100 by shifting their trade to the innovator while the sellers they leave suffer a loss of only $80 as a result, then these sellers will be unwilling to cut prices sufficiently to hold their customers. Whereas, if these sellers suffer a loss of $150 if customers switch, they would be willing to cut prices sufficiently to retain patronage. The innovation succeeds only if the gains it confers, measured in dollars, exceed the cost it imposes. (pp. 105–6)

The problems with this are manifest. The first is based on my original criticism of Coase in terms of psychic income. Consider the situation of the seller who suffers a loss of $150. According to Demsetz, this person would in effect bribe the fleeing customers to return to the fold. But suppose that their loss takes the form of psychic income, and that they do not have the wherewithal to make the bribe. Under these conditions, the scenario falls apart. Second, we must assume perfect competition,[35] in that Demsetz mentions "competitive sellers." But under perfect competition, profits are assumed to be zero,

and full employment of all land, labor and capital is a given. Why, then, under these weird and exotic conditions, would anyone even notice the departure of customers, much less offer to *do* anything about it? Third is the problem that Demsetz here covers only pecuniary externalities. But what about real externalities? What about soot pollution, for example? How is the market going to determine whether the benefits are greater than the costs, without engaging in the odd sport of interpersonal comparisons of utility? Demsetz tosses about figures such as $80, $100, $150; this is all well and good as a hypothetical example. But when push comes to shove, interpersonal comparisons of utility are required if we are to determine real world values. In contrast, the Lockean-Rothbardian position[36] clearly need not rely on interpersonal comparisons of utility. The first settler is entitled to either clean or dirty air, whichever he established before the advent of the second settler. The latter must accept the situation as he finds it.[37] The issue of interpersonal comparisons of utility does not arise.

Fourth, Demsetz is in effect arguing that we don't really need extraneous doctrines such as the homesteading principle to determine property rights. Instead, the market can do this for itself without resort to interpersonal comparisons of utility via the principles adumbrated to us in the case of the introduction of the new product. But this is a serious mistake. The market is merely the totality of all trades. Before any commercial interaction can properly take place, the issue of legitimacy must be faced. I may give you $1 for a newspaper, but if this arrangement is to be part of the *free market*, it must be assumed that each of us has valid title to that which we are giving up. For example, if I stole the $1, or you the newspaper, this contract, however described, cannot be considered part of the free enterprise system. To deny this is to argue in a circle. It is to say that market activity can be based, ultimately, upon market activity.

This circularity is too much for even Demsetz to incorporate into his philosophy Indeed, he states:

> The definition of rights by the legal system, which precedes market negotiations, of course, does not have the benefit of market-revealed information when ownership decisions are made. (p. 106)

But if this is so, how can he logically maintain that the market is sufficient unto itself to define property rights?

Stability of Property Rights

In the libertarian philosophy rights are stable. Indeed, totally so. This holds true in the sense that theft is strictly forbidden, and so is the law of eminent domain. The only way that property can change hands is through voluntary, e.g., market activity: trade, barter, purchase, gift, gambling, inheritance, etc. Nozick (1974) called this the theory of legitimate entitlements. In this way, all legitimate property titles, at least in principle, can be traced back to the homesteading stage.

The Law and Economics perspective is very much the opposite. Here, stability of property titles is instrumental at best, certainly not intrinsic. Demsetz specifically does not:

> endorse frequent involuntary reassignment of such [private property] rights . . . Frequent involuntary reassignment would destroy confidence in the longevity of property rights and all long-run consequences of resource use will tend to be neglected, at least in a world of uncertainty and positive transaction cost. Efficiency calls for a high degree of stability in property rights definitions, but it does not necessarily forbid all involuntary reassignment, especially when high exchange cost or free-rider type problems reduce the efficacy of allocations through the market. (p. 106)

No Marxist, he, but this is hardly a ringing endorsement of property rights. Happily, one supposes, we live in an era of "uncertainty and positive transaction cost." If not, one would shudder at the prospect of leaving the determination of property rights to the Chicagoans. On the other hand, this is scant comfort, for we most certainly *do* live in a "high exchange cost" world, and in which, moreover, people like Demsetz see "free-rider type problems" under every bed.

The Panglossian Demsetz arises again when he asserts:

> The producer of a new product receives the right to offer it for sale to all potential buyers; producers of rival old products are denied the right to the trade of their customers, and these producers therefore suffer an uncontemplated loss. [There is good reason for this rights assignment. It would be too costly to ascertain who is harmed by how much, or

who would be harmed by how much, when a new product is to be introduced.] (p. 106)

But this account is problematic for several reasons. First of all, whenever one hears of government having solved a problem, no matter how simple, one should check one's wallet; extreme suspicion is the only appropriate response to such claims. Imagine: the very same government which brings us the U.S. Post Office, minimum wage, rent control, tariffs, and thousands of other wealth destroying institutions, has finally "got it right." It has somehow thrust itself forward into the breach, and come up with a rational property rights determination. If so, it is probably *despite* its best efforts.

Second, while Demsetz's account of present law is indubitably correct in some particulars, this state of affairs did not always exist. During medieval times, for example, it was by no means true that people with new products were free to offer them for sale. On the *contrary*, the guild system was then in place, and monopoly powers were often enjoyed by these government sanctioned cartels. Even nowadays some vestiges of this system still endure. Medical and other occupational licensure laws (Friedman 1962; Williams 1982) prohibit people who wish to, from offering services to customers. In effect "producers of rival old products are *not* denied the right to the trade of their customers," at least vis-à-vis doctors and taxi cab drivers who would *like* to offer their wares, but are prohibited by law from doing so. If the government is so gloriously efficient, how does Demsetz explain these counter-examples?

Third, why "uncontemplated?" Surely every person who ever conducted a business fears the possibility that one day his customers will desert him in favor of a better offer. Indeed, the nightmares of businessmen probably consist of little else. Not that this is relevant to legitimate property rights determination, a normative question. Whether loss is or is not contemplated determines on the positive issue of whether these considerations are capitalized into prices.

Rear End Collision

Demsetz next seeks to buttress his "law is wonderful" thesis by use of the rear end collision case. "The driver of the second car is liable," he tells us, "'because' in the general case the driver of the second car can avoid such accidents more *cheaply* than the driver

of the first car" (p. 108), According to Demsetz, the system works this way for slow speed congested traffic. But for "high speed expressways" where "the driver of a second car has a more difficult time avoiding rear end collisions, . . . we often observe minimum speed limits" (ibid.).[38]

The implication, here, is that some modicum of efficiency has been attained as far as road and highway operation, legislation, and institutions are concerned. The judiciary is flexible enough to be able to function in two very different kinds of situations: slow and fast speeds. Not only does state law call down penalties on the correct party in rear end collisions at slow speeds (the second car), it even focuses on the correct party at higher speeds (the first car, by forcing it to travel above a minimum speed level.) Its functioning has nothing to do with so philosophical a notion as causation, responsibility, guilt. On the contrary, it is tightly calibrated enough to be able to maximize wealth under, seemingly, all conceivable conditions. Just let it loose, let "the law be the law," and watch it avoid accidents as "cheaply" as possible.

But there are serious reservations which must be registered about this optimistic scenario. If it is true, why, then, are people being slaughtered like flies on the nation's highways? Surely, unnecessary deaths cannot be completely irrelevant to wealth maximization. On the contrary, life is the very basis of wealth. Without people to enjoy them, goods and services are just so many wasted molecules and actions.

If the law is so efficient, why does it allow for road socialism, that is, government ownership and management of highways? *This* is the cause of 40,000 plus traffic fatalities per year, more than two million serious injuries, and untold loss of property values (Block 1979; Woolridge 1970; Rothbard 1973b). If leaving auto travel to the tender mercies of the state is such a good idea, why do commuters in large cities face congestion that virtually strangles movement? We all know that socialism is inefficient.[39] What Demsetz does not seem to realize is that this applies not only to steel mills, trains and foodstuffs, but also to motor vehicle transportation arteries. It pertains to both slow speed city traffic and high speed expressways. Judges, in interpreting the law[40] so as to allow road socialism, are thus inefficient, contrary to Demsetz. For every penny possibly saved by holding the second driver responsible for accidents on city streets, and placing minimum speed limits on freeways, much more is lost by prohibiting roads from being run on market based

private property right principles.

There is a second argument against the position staked out by Demsetz. Take slow speed crashes. How does he know that "the driver of the second car can avoid such accidents more *cheaply* than the driver of the first car?" Where is his proof? The problem is that in order to adduce any evidence, Demsetz would have to violate the strictures of interpersonal comparisons of utility, something we have seen him on record as opposing.

Third, there is an asymmetry in Demsetz's analysis. He maintains that in slow traffic the second car must be held liable because he can avoid the accident more cheaply. He states that things are different in fast traffic. Here, logically, we are entitled to deduce that the first driver can more cheaply avoid the accident, and hence must be held liable. But Demsetz never reaches this point. Instead, he contents himself with the comment that "we often observe minimum speed limits on expressways." But why only "often?" Why not "always," or at least "almost always?" Could it be that the government sector is not the cheapest conceivable option, as is mandated by the system of socialist law which undergirds it? Why not carry through on the logic of this claim and call for holding liable the first car in a rear end collision on the highway? Alternatively, he could have inverted things; adopted the speed limit policy he uses in high speed cases for local traffic. That is, he could have claimed as efficient a maximum speed limit under congested traffic conditions—rather than a finding of liability.

There is yet another difficulty: the alternative hypothesis has by no means been refuted by Demsetz, The commonsensical notions of cause, blame, fault, come into play here. The reason the second motor vehicle operator is found liable is not that he could have more cheaply avoided the accident, but rather that he *caused* it. He crashed into the first automobile, not the other way around. He is at fault. This is shown by the fact that if the party of the first part suddenly jammed on his brakes for no reason at all, or, worse, put his gear into reverse and rammed into the party of the second part, no one in his right mind would find the latter liable, despite their relative positions.

Demsetz, himself, of course, would have to agree with this latter point. After all, he states only that "there is a *prima facie* case that the driver of the second car is liable" (p. 108), not that he always is, or necessarily is. But if so, we arrive at a *reductio*. How does a Demsetzian determine, in a particular rear end collision, who is liable? He cannot rely merely on the positions of

the two vehicles. He has to look beneath this superficiality, to the underlying causal relationship. Namely, he must look to cause, to negligence, to choice, in short, to all the common sense notions he is so anxious to throw out in favor of cost calculations and mutual determination.

Factory vs. Laundry

By his comments on this subject, Demsetz shows himself not so much in disagreement with Rothbard, as unable to comprehend the latter. In Demsetz's view,

> If the owner of a factory considers locating next to an existing laundry, and the owner of that laundry protests in court that soot from the factory will raise the cost of laundering, the factory owner is more likely to be held liable for damages than if it is the laundry that contemplates locating next to an existing factory. (p. 108)

And why is this? It is due

> to the generally correct judgment that he who has not yet located his business can move his business to another location at less cost than he who has already fixed his assets into a particular location. (p. 108)

Demsetz castigates Rothbard for eschewing this wealth maximization based analysis, and instead determining the property rights in this case on the ground "that every man has the absolute right of property in the previously unowned natural resources which he finds" (p. 108).

If this is the best Demsetz can find in Rothbard as an answer to this question, he is dealing with a straw man. To be sure, Demsetz's is an accurate portrayal of a view Rothbard has expressed. But Rothbard did so in another context. In *this* context, Rothbard would say nothing of absolute property rights. Instead, he would utilize the homesteading principle. If the factory was located there first,[41] it would have homesteaded the right to spew forth soot into the area under contention, in Rothbard's view. *That* is why the Johnny-come-lately laundry would have to take the air as it found it, not because of absolute property rights in virgin territory. Alternatively, if the laundry

were the original homesteader, it would be deemed by Rothbard to have established rights to enjoy the same air quality it found upon arrival, namely, pure.[42] This firm would be granted an injunction against the late arriving factory polluter not because of the costs of moving people before they establish themselves, not because of the notion of absolute property rights in hitherto unowned resources, but because of the homesteading maxim: first come, first served. The first arrival gets the right to interact with nature as he sees fit.[43] Demsetz, in other words, has not succeeded in achieving "real disagreement" with Rothbard, He does not even understand the view of the latter, a necessary precondition.

Nor is his own perspective in this regard above reproach. Based on his statements, one would expect symmetry from Demsetz. It shouldn't matter who locates in the given area first; the newcomers should always have lower relocation costs than the established firm—before, that is, he has put down roots. Therefore, the property rights nod should always be given to the business concern with assets fixed into the geographical space.

In the event, however, we are disappointed. This works just fine when the soot creating factory owner is the new kid on the block. However, when it is the laundry's turn to play newcomer, this no longer holds. Nor are we vouchsafed any explanation as to why not.

Boat Dock

Nothing daunted, Demsetz next illustrates his philosophical perspective with a case in which a boat and a moving dock collide, leaving the latter damaged. In his view, it is nonsense to think that the former caused the harm and is thus liable, while the latter was the recipient of the harm and is thus the victim. Why? Because "all motion is relative" (p. 108). One could with equal reasonableness say that the boat bashed the dock, or *vice versa*. And attempt to discern blame or fault would be foolish.

Demsetz's alternative scenario fairly leaps off the page at us. Whoever "could have prevented the damaging interaction at least cost . . . is viewed as 'causing' the accident" (ibid.). He does not explicitly state that this party should be held legally responsible for the accident, but this is the clear implication.

We have already seen that the impossibility of interpersonal comparisons of utility could bar the court from making a non-arbitrary determination of least cost. In the economic sense cost

is the next best opportunity foregone by taking any action. This, by its very nature, can only be known by the economic actor himself, and not by anyone else, such as a Coasian-Demsetzian judge.

Let us however explore not the economic notion of cost, but rather Demsetz's stipulative definition. One possible tack he could have taken would have been to maintain that if a boat and a dock crash together, and this causes damage to either, the owner of the one who failed to put in place protective barriers (e.g., rubber tires) should be found liable.[44] This appears to be the logical conclusion, since "an ounce of prevention is worth a pound of cure," and Demsetz is, if nothing else, an avid proponent of wealth maximization. The problem, here, though, is that it all depends upon one's level of time and risk preference. The old adage applies, clearly, if the boat/dock owners are risk avoiders or even risk neutral, and have a low time preference. But if their preference for risk is intense enough, and their time preference rates are high enough, it may, paradoxically, be cheaper to "go full speed ahead and damn the possible, later, interactive damage consequences." That is, the rational course of action is to gamble: to use no protection at all.

Let us now abstract from objections based on time or risk preference and consider the case in which, for some reason, neither the boat or dock owner uses such protective devices. One could maintain that cost[45] is proportional to the length of the side of the edifice, and that since the dock is larger than the boat, the latter is the least cost avoider, and should hence be penalized for any crash. However, even though this is true, the precise area where the two may come into contact with each other is precisely the same. That is, a 100 foot boat may only hit 100 feet of a 1,000 foot dock, no more, no less.[46] So this is no solution to the problem, since the cost of installing rubber tires is identical.[47]

Now let us assume that the costs of tire installation (for any given perimeter) is cheaper for the dock than for the boat because the former is more stationary, is located closer to the land (where used tires may more cheaply be found), is closer to sources of cheap labor, etc. Here, at last, we would have a relatively clear cut non-arbitrary judicial decision[48]: the owner of the dock, not the boat, is the least cost accident avoider, and hence should be legally liable.

There are still problems, though, even in this "clear cut" case. It is always possible to ask the following questions: The

dock owner is the least cost avoider of the accident, but is he responsible for it? Is it *just* to penalize someone, given that he didn't cause an accident, merely because he could have avoided it more cheaply than someone else? The answer that springs to mind is No, it is *not* just to penalize a person who has not caused an accident,[49] even though he could have more cheaply avoided it.

Demsetz's thinking, however, does not lie in this direction. Instead of speculating about different cost scenarios, he focusses on one: "the dock was rotten for want of maintenance" (p. 108). But why would this make it cheaper for the dock owner to invest in taking ameliorative action? To be sure, it would presumably be easier for the dock owner to repair his own dock than for the boat owner to do this for him (at the very least, the latter would have to undergo the expense of obtaining permission from the former in order to do this). The question is, why would it be less expensive for the dock owner to repair his facility than for the boat owner to take defensive measures? One possibility leaps to mind. Suppose that the dock's state of disrepair consisted of protruding material sticking out into the water with a sharp point at the end of it. For example, if there were a knife edged pole which extended off the dock 20 feet into the water, this would require that the boat come equipped with a 21 foot thick coating of rubber tires. As this is clearly more expensive[50] than repairing one protruding 20 foot sharp pole, Demsetz's case is made: the dock owner should have ordered and paid for the necessary repairs. Since he didn't, and he could have done it more cheaply than bedecking the boat with a thick layer of tires, he should be liable for any resulting accident.

Demsetz reckons without one point however. What renders this example intuitively obvious is this sharp pole, sticking out into the water as it does. *That* is why it is proper to hold the dock owner liable for the accident. That protuberance offends our sense of justice; without it, we would be outraged by holding the dock owner responsible, merely because he was the least cost avoider.

This pole also makes the case for the alternative hypothesis based on blame. If the pole (attached to the dock) and a boat ram into each other, it is no longer true that "all motion is relative." On the contrary, it is now clear that one person caused the accident, and the other was the victim. Even more telling, it is by no means clear that the incident should still be labelled an accident. Surely, a dock with an extending pole is more like an

accident waiting to happen (e.g., a threat of initiatory violence) than a normal accident. When one goes walking down the street waving a big pole around, if it connects with an innocent person the result is not so much an accident as it is assault and battery.

There is a much more basic attack to which Demsetz opens himself. Just as he is a road socialist, he is also a water socialist. [51] The point is that the whole problem of boat vs. dock liability arises because the water upon which both sit is an unowned resource. According to the Lockean—Rothbardian theory with which we are contrasting Demsetz's Law and Economics perspective, this state of affairs is unnatural and improper. In this view, the law should allow for the private ownership of bodies of water, such as lakes, rivers, streams, seas, oceans, etc.[52] If it did, problems of the sort mentioned by Demsetz simply would not arise.

For example, suppose I owned a lake. And on this lake there appeared the Demsetzian dock and the Demsetzian boat. I, as owner of the body of water in which they both sit, would have the legal right to determine the liability rules for accidents. Just as the private owner of the highway sets the rules of the road, so *too* does the private owner of the body of water determine the laws which shall prevail on the lake or ocean.[53] Under these conditions, in one fell swoop, the whole problem would disappear. Now it may well be that if I set up the wrong liability rules I will go bankrupt. After all, I will be competing with every other lake owner in the area for customers, and if any part of my service is found wanting—cleanliness, fish stock availability, access roads, or liability rules—I will face the threat of Chapter 11 reorganization. And this is where Demsetz comes in as a force for good. It may well be that his least-cost-avoider principle—however much wanting we have found it to be on purely economic grounds—may be of some service to lake owners. If so, we may wish Demsetz Godspeed in his entrepreneurial task.

In other words, Demsetz's Law and Economic perspective serves a putative economic role under water socialism. Someone must advise judges on liability rules from an economic perspective, and his theory, no matter how problematic, at least serves this role. But under water freedom, the perspective reduces to a mere managerial technique. Here, Demsetz can take his place alongside biologists who advise the lake owner on fish stocks, sanitation engineers who recommend policies on water cleanliness, etc.

Why do the Demsetzians of the world spend their time on

endless ruminations about least cost avoiders? One possible explanation arises from the insight of water socialism. There is a long socialist tradition of blaming the market for what are really problems of interventionism, or the lack of markets based on private property rights. For example, they castigate free enterprise for unemployment, without realizing that this problem stems from unions, wage legislation and the lack of a one-hundred-percent gold standard; they tax capitalism with the housing (homelessness) crisis, which is actually caused by a plethora of interventions, such as rent control, welfare, zoning, urban "renewal," etc. They hold the market responsible for crime, not the government with its mismanagement of welfare, prisons, education, drugs, etc. Road and water socialists make a similar mistake. They see numerous externality and liability problems. Not realizing that these are the result of interventionistic elements in the economy, they do not see markets and private property rights as the solution. Instead, they propose further government incursions, this time judicial ones.

Of course there is an "externality problem" with street lights on sidewalks, but not in shopping malls. This is because the one does not benefit from the institution of private property while the other does. In the latter case, but not the former, the externality is internalized. In similar manner, there is a problem assigning liability to boats and docks which sit on unowned bodies of water; but this problem would not occur under privatization.

Economists see externality problems as widespread, but not within restaurants. Yet they exist there, too, at least potentially. If the tables are located too close to one another, each customer will be a negative externality to the others under the resulting crowded conditions. Management consultants are needed to give locational advice to restaurant entrepreneurs. These problems are widespread, but tend to be ignored by "welfare" and "public administration" economists, because they do not appreciate that the market tends to internalize these externalities, when (and only when) private property rights are allowed.[54]

Last Clear Chance Rule

Let us now consider Demsetz's comments on the railroad killing a trespasser by running him over. As usual, this economist is concerned entirely with least cost avoidance efficiency and wealth maximization; rights and wrongs never enter the picture,

except for his view that there is nothing more to ethics *than* efficiency: "It is difficult to ever describe unambiguously other criterion for determining what is ethical" (p. 109) apart from efficiency.

The libertarian answer to the trespasser is rather straightforward. The trespasser is a thief (of services) and should be dealt with the fullest extent of the law. Certainly, there would be no question of holding the victim of this act, the railroad, guilty for going about its legal business of transferring people and goods. If the trespasser is hurt or killed by the train, the blame rests with him, not the victim of the trespass.

Demsetz, in contrast, regards the *trespasser* who is hit by the train on its own property as the victim. His rendition of his opponents' point of view is of great interest:

> Since the trespasser could avoid the accident at less cost than the railroad, it would seem that efficiency would call for liability to rest on the trespasser even if the railroad made no attempt to warn. (pp. 108–9)

Demsetz dismisses this view as "superficial." Before proceeding with his analysis in detail, I must note that this is more than passing curious. All during the course of his article (1979), efficiency has been *defined* in terms of least cost avoidance. Now, however, when Demsetz wishes to defend the last clear chance rule (unless the railroad engineer attempts to warn the trespasser, the railroad is held liable for hitting him) all bets are off. In this case, efficiency is now defined in terms of "the likelihood of saving a man's life and the value of doing so" (p. 109).

Human life is of course valuable, although this should be at least somewhat attenuated in the case of trespassers. Demsetz, however, is a neoclassical economist, one who lives or dies by the falsifiability principle. If one case can be cited where least cost accident avoiding should not in his opinion entail liability status, he must in all conscience give it up, at least as an absolute maxim. Here, he himself furnishes us with just such a case. However, instead of admitting, or even acknowledging that this concession has shot his own thesis in the foot, so to speak, he blithely moves on.

His concern, now, is with saving the trespasser's life, and with deterring anything that militates against that goal. The story now becomes more than a little difficult to follow. First,

Demsetz avers that the trespasser could have avoided the accident at less cost than the railroad. (He gives no reason to suppose this, but let that pass; this is not the first time he has merely assumed the costs at issue to be greater on one side than the other.) This would seem to imply trespasser liability, at least for him. Then, he reverses field and concludes that the life of this tortfeasor is worth more than the inconvenience to the legitimate owner of the private property in question. (Again, no explanation for this calculation is offered, but let that pass, too.) Clearly, Demsetz is tailoring the rules to arrive at a conclusion he wishes to reach on other grounds.

Judicial Equity

Professor Demsetz does not claim perfection for his system. He freely concedes the possibility of error. Not for him are the niceties of perfect competition, purchased at the cost of irrelevance to the real world. He states

> I do not mean to miscalculate the difficulty of the problem, to suggest that mistakes are not made, or to underestimate the complexity of the real institutions used to resolve the problem. (p. 109)

This is all well and good, and certainly imparts a measure of moderation to the proceedings. The only problem is, given the exigencies of interpersonal comparisons of utility, how can Demsetz determine, even in principle, that a blunder has been made in any given case? The same difficulties that face the court in comparing the necessarily subjective costs of one person with another also make it impossible for the analyst open to the possibility of judicial error, such as Demsetz, to be aware of it. For example, let us suppose that a judge rules in favor of a tennis player vis-à-vis a would-be sleeper, because he thinks that the benefits of athletics during the afternoon are worth $100, while the costs foregone by the wannabe sleepers, because there are so few of them at that hour, are only $40. In his opinion, the decision “saves” society $60. Along comes Demsetz, ever ready to find “mistaken” judicial decisions. He pounces upon this one as being in error. To do this, he must make a claim along the following lines. Namely, that the benefit to the racketeer has been overestimated by the judge and in point of fact is only $70, while the costs to the insomniac have been underestimated by the jurist and are actually $90. The point is, the same necessary

arbitrariness that faced the judge in his initial determination now casts its baleful countenance upon Demsetz, in his attempt to second guess the member of the court. If the first had no objective considerations upon which to base a decision, then neither does the second (e.g., Demsetz), in his attempt to check for "mistakes." Whether these miscalculations can be recognized or not, Demsetz thinks there is a force which can overcome this possible lacuna:

> There is reason to believe that a series of common-law type decisions will tend to converge on efficient definitions of rights because a legal decision that generates inefficiency is more likely to set in motion a stream of appeals and new cases designed to upset that decision than would be the case had the decision been correct from the viewpoint of efficiency. "Losers" generally have more to gain from upsetting a decision than "winners" have in defending that decision when it has produced an inefficient allocation of resources, and just the reverse when it has produced an efficient allocation. (p, 109)

Even at first glance this seems to be a weak foundation upon which to base the entire Law and Economics edifice. It appears especially flimsy compared with the profit and loss weeding-out system of free enterprise which tends to ensure that extant businesses are the best of an imperfect lot. It suffers in comparison to the economic market in that while the loser of what Demsetz is pleased to call an inefficient decision can indeed *launch* an appeal, whether it is acted on, or accepted, is entirely at the discretion of the judiciary, the very institution which putatively created the error in the first place. In contrast, under the free market system, the dissatisfied customer can patronize a firm other than the one which initially failed to please him.

In the case of markets, moreover, the firm that fails to satisfy consumers loses out, necessarily so. In comparison, judicial error first cannot be recognized, and second, even if it could, the tendency for mistake making judges to be shorn of their judicial robes on this ground is very weak. Judges are elected, or appointed by a relatively non-responsive political system.[55] This is hardly a recipe for accountability.

There is, however, a possible rejoinder open to Demsetz, but I am inclined to doubt that he will wish to make it. What if

judges, too, were part of the market? That is, consider a system verging upon free market anarchy (D. Friedman 1989; Rothbard 1970, 1973, 1982a; Benson 1989, 1990) where judges are not appointed through the political process, but are instead market participants, forced to rely upon voluntary payments for their financial sustenance. Then, only the first of these problems would exist.

There is another theoretical difficulty. If it is true that losers have more to gain from challenging an inefficient decision than winners, it is equally true that they will have fewer resources with which to do so. Whether one effect swamps the other is impossible to say. But the upshot should yield little comfort to advocates of judicial equilibrium tendencies such as Demsetz.

Then, too, there is the practical problem. Business concerns which survive the market test of profit and loss are more or less efficient—no matter which criterion is used to make that determination. The same, alas, cannot be said for the political-legal-judicial process. Rather than "efficiency," the word that springs to mind is the very opposite. Furthermore, if there is an inexorable tendency for good laws and sensible court decisions to emanate from Washington, D.C. and the state capitals, why are they centers of graft and corruption? Apologetics of this sort takes a particular brand of courage, and we can indeed credit Demsetz for showing far more than his fair share of this quality.

As well, there is the legal doctrine of "stare decisis," a cornerstone of our existing judicial system. This implies a rather slavish respect for precedent, which tends not only not to weed out bad decisions, but rather to entrench them,[56] If one ill conceived finding is rendered, all similarly aggrieved parties will *not* be motivated to re-litigate the issue, as their probability of success is now *lower* than it was in the first instance. In a monopoly justice system, poor decrees discourage those with valid complaints from litigating.

Private vs. Community Property Rights

Demsetz now returns to a discussion of public goods, free riders, externalities and high transaction costs. It is on the basis of these phenomena that he tries to "rationalize a role for the state" so as to solve the problem of national defense, foreign policy and clean air. His discussion leaves much to be desired.

Demsetz starts off his call for "communal property rights," i.e., government control, by citing situations "when the gains or

costs associated with particular interactions are not confined to a few parties, but, instead, are spread thinly over large numbers of individuals" (p. 110).

William F. Buckley Jr. once described the conservative movement as an entity sitting athwart history, and yelling "No!" It would appear that economists who point out the illegitimacy of making interpersonal comparisons of utility perform a similar role. The problem is, this way of putting the issue runs afoul of interpersonal comparisons of utility prohibitions. How do we know when gains or costs are confined narrowly or spread thinly? Yes, we can note trespass (of people or runaway soot) and, as a result, the problem of dirty air can easily be solved by private property rights institutions. Demsetz allows that

> it is difficult to see how costs and benefits can be internalized at practical cost, as would be true with regard to air pollution in any private property rights system that I have been able to envisage. (p. 110)

The problem here, however, is not the market. Rather, it is Demsetz's lack of imagination. Perhaps some new scenarios would present themselves if he perused some of the libertarian environmentalist literature (Block 1990; Rothbard 1982b; Horwitz 1977). Here, he would learn that the reason we have dirty air is that for decades government judges refused to uphold the trespassing laws against errant soot particles—and that this has nothing to do with externalities, neighborhood effects, costs, etc. Rather, it was a philosophical failure. The point is, interpersonal comparisons of utility present no difficulties to he who seeks property rights violations as the source of air pollution problems; in contrast, it sets up insuperable barriers to the Law and Economics high-transaction-cost hypothesis.

As to national defense, the obvious rejoinder is that "one man's meat is another man's poison." Defense may well be a value to most people in the U.S.—at least as shown through public opinion polls.[57] But what about pacifists, for whom a national defense would presumably be a disutility? Unless one is willing to state that either there are no pacifists in the U.S., or that the benefits they receive are somehow outweighed by the losses suffered by the majority—in blatant contradiction to the strictures against interpersonal comparisons of utility—one cannot even talk about the "gains" accrued by national defense. On the contrary, this argument is incoherent (Hummel 1990).

Then, too, there is the misuse of language. By the phrase

"communal private property rights" Demsetz does not refer to the decision of individuals to voluntarily pool their legitimately owned resources. Examples of such cooperation which merit the term "private property rights" include the kibbutz,[58] the monastery, churches, firms, cooperative and condominium housing developments, stock companies, partnerships, etc. In contrast, Demsetz uses this term to refer to the government's seizure of private assets for its own purposes. The proper appellation in this case is not the contradiction in terms "communal private property rights," but rather "*lack* of property rights," or "theft." To assert that a group of people has communal property rights is to imply the notion that they have a *right* to use the property in any (non-invasive) way they wish, and to exclude others from using them at all. But if the way the property came to the community in question was against the wishes of its original and legitimate owners, then this group of people most certainly does not have their right to use these resources as they wish respected. On the contrary, the rightful owners are forced to give up their property; it is then used in a manner determined by the government, or by a majority of those deemed to be members of the "communal" or "cooperative" group.

This democratic philosophy is not without its flaws. Suppose that a friend of mine and I break into your home, and you catch us in the act of absconding with your bicycle. You protest that this is theft. We criminals, being of a philosophical turn of mind, are willing to debate this issue with you. To prove our point (that this bike is now "communal private property") we hold an election. First we ask "how many people think the bicycle should be left right where it is, under the control of its [previous] owner, that is, you?" One hand goes up. Yours. Then we ask "How many think it ought to be taken away, and used for communal private property purposes, to be determined by the majority?" Two hands go up. Ours.[59] Would such a justification satisfy Demsetz? Hardly.

Ethics

With this as a jumping off point, Demsetz now begins his analysis of ethics. In the case of the familiar public goods, given high transaction costs and the free rider problem, he asserts:

> government intervention may be thought to be

> clumsy, costly, and misdirected, but it is seldom thought to be unethical. Similarly, the opposition to the government's use of defense forces may be based on its involvement in an immoral war, or its use of an immoral draft, but it is seldom based on the immorality of the principle of using the government to provide for the "common" defense. But when a government confiscates property rights that could have been obtained through the market, as with condemnation proceedings, the military draft, or the nullification of gold clauses during the recession of the 1930s, there is more than a hint of belief that an unethical theft of rights has been perpetuated. (pp. 110–1)

But why is the good professor so sure that none of these things can be justified on Law and Economics grounds? Surely, if we take him at his (interpersonal comparisons of utility) word, these are all empirical questions. Their answers can only be determined after a thorough and exhaustive cost-benefit analysis has been concluded. As it stands now, however, the text makes Demsetz appear as if he has adopted "religious and intuitive faith" (p. 98). After all, in his own view, condemnation of private property and gold clause nullification are not objectionable in principle. How, then, has he come to the conclusion that these acts (even if proven inefficient through empirical interpersonal comparisons of utility calculations) are an "unethical theft of rights?" This would surely surprise his Chicago colleagues.

Demsetz is clearly uncomfortable with the language of ethics. And this should occasion little surprise; after all it is he who took the view that there is no more to morality than economic efficiency. However, there is one exception to this generalization. He pulls no punches with regard to the military draft. Demsetz is on record as equating ethics and economic efficiency. If so, why resort to the language of morality at all? Why not stick to what for him is the tried and true world of wealth maximization?

A Walk Around the Block

Demsetz and I once took a long walk together around the block (as it happens, it was during a break at the meeting of the Mont Pelerin Society in Munich). As we proceeded, a lost man

approached us, asking for directions. Demsetz's comment to me afterwards (since we were both strangers, we could not help him) was that this person was properly allowed by law to break into our conversation to ask directions since the information we could possibly have rendered him would likely be more valuable to him than would the trivial loss of time, and the interruption of the flow of conversation, be costly to us. My reply was that this was properly allowed by law only because it did not constitute an invasion of person or legitimately held property rights.

Several other thoughts now occur to me. First, there were two of us and only one of him. If we make the heroic assumption of equal value placed on time for the three of us, then it is likely that our loss was twice his gain. If there were 5 or 10 of us walking along and talking, then on this account the man almost[60] certainly should have been legally penalized for reducing wealth.

Second, I could probably specify conditions under which it would be improper or illegal for one person to break into the conversation of another, except, perhaps, under the most extreme of circumstances. This is a point in Demsetz's favor, as the criterion appears to depend upon to whom is the interruption more important and valuable: the interrupter or interruptee. But the problem with this is that *ex ante*, it is extremely difficult to tell. Here private property rights, contrary to Demsetz, can come riding to the rescue. In symphony halls, hospitals, during lectures, movies, the owners can specify "quiet please" rules, which prevent, or at least reduce, the incidence of vocal interruptions. Those who do this and thereby satisfy their customers, will prosper. Those who do not will not. *This* is why people feel free to break into conversations or not. On the public street, in contrast, this institution cannot work, because the streets are unowned and there are thus no legitimate private property rules which obtain there (street socialism). People are therefore forced to employ the mores learned in other contexts, with sometimes unfortunate results. For example, it is by no means unknown for young males in the inner city to kill people who have merely looked at them. This occurs on the street and in public parks, but more rarely on relatively more well guarded private property.

Paternalism

Our author now enters into a train of thought which might be

seen as peripheral at best to Block (1977a) the article he is presumably debating. We shall nevertheless pursue him on these grounds since, as it turns out, there is some relevance to matters of mutual concern after all.

He starts out, reasonably enough, defining paternalism as the "coerced denial of normal contracting rights" (p. 111). One might expect that as an economist concerned with wealth maximization, he would eschew paternalism as contrary to the interests of people involved in mutually beneficial trades. If so, one would be disappointed: "it is not clear . . . that there should be no paternalism, nor how far paternalism may be carried" (p. 111). But this, to say the least, is surely incompatible with wealth maximization, assuming that we are not dealing with children or madmen. After all, if ordinary people cannot be trusted to know their own interests, who can be?

At this point Demsetz goes off into a disquisition on sociobiology. This, it would appear, is an effort to uncover people who can be trusted to act paternalistically, but to do so in the best interests of others, their wards.

The libertarian must look at this entire enterprise with a certain amount of equanimity, since he rejects paternalism right off the bat, on principle. Not so for the benevolent interventionist, such as Demsetz. To him, it is a matter of no little concern that the person assigned the paternalistic role actually carry it out for the benefit of his ward, despite the well known Acton axiom about the corruptibility of power.

Who, then, can be trusted with this delicate task? Sociobiology, according to Demsetz, offers a recommendation: "To a large extent, altruism is limited to kinship relations" (p. 111). Say what you will about this initiative, his defense of "kinshipocracy" is at least novel and inventive. The problem is, there is much more that can be said about Demsetz's view of it, none of it too positive. From a libertarian point of view the notion of paternalism must be completely negative; but it is even problematic from his own Law and Economics perspective. Where is the argument that paternalism will actually promote wealth maximization? If anything, the reverse should be apparent. Setting aside a man's decision because his brother, or all five of his siblings together will it, is hardly a guarantee of welfare improvement in his behalf. Nor is there even an expectation that this goal would be attained. If is of course likely that a stranger, or any five people picked at random from the general population, would do far worse than the man's kin.

Sociobiology does give strong evidence for that contention. But so what? Demsetz's self-claimed brief is to improve economic welfare, not to advance policies that disrupt wealth creation less than even worse alternatives.

There is his positive claim in this context: "Paternalism is, in fact, largely limited by natural selection to intrafamily relationships" (p. 112). Stuff and nonsense! The biggest paternalist the world has ever known, the most thoroughgoing, and, as it happens, the most vicious and depraved, is of course that very institution Demsetz seems so intent on defending: the government. George Washington may have been called the "Father of our country," but this is meant only in a figurative sense. He and his successors are certainly no kin to the rest of us. And yet, particularly in the last 100 years or so, governments have been exercising more and more paternalistic powers over the entire citizenry.

How else can we interpret the actions of Stalin or Hitler? Each was doing what he thought was his level best for his "kinfolk" (respectively, proletarians and Aryans). Of a more benevolent variety, the actions of such leaders as F.D.R., Kennedy, Johnson, Bush and Clinton may also be interpreted as paternalistic. Yet it is hard to see how the reductions of economic freedom they brought about were actually beneficial.

Competition

If any further evidence of Demsetz's moral myopia were needed, his discussion of competition more than fills the bill.

He begins by describing the phenomenon:

> There are a multitude of methods for competing, ranging from a brick through a rival's place of business to a reduction in price to the introduction of a superior product. (p. 112)

Even at this level, objections must be registered. In economics, competition is a way of *cooperating*. Paradoxically, even though business rivals may go "hammer and tongs" at each other, their activity is part and parcel of the market, and such commercial interactions are a cooperative endeavor melding together the goals of millions of people. Its reach is limited only by the extent of the division of labor. Many people think that professional athletic teams are only competing with one another. But economically speaking, they are in a deeper sense engaged in

mutual cooperation, putting on a show for the paying customers. For all of the fabled rivalry which occurs in this venue, they cooperate with each other precisely as much as member of other large firms which entertain the public: symphony orchestras, movie companies, etc.

The point is that they refrain from aggression; competition, at least in the economic sense, is limited to non-invasive acts. This even includes boxing. Superficial appearances to the contrary, no aggression takes place in the ring (apart from purposeful head butts, hitting below the belt, and other such rules violations). The ordinary right cross, which in most other contexts would count as aggression, does not qualify as such in this context. For both pugilists, agreeing to take part in this athletic contest, have mutually rendered what would otherwise be considered assault and battery into voluntary, "cooperative" behavior.

Paradoxically, the more competitive is the athletic contest, the more economic cooperation occurs. No one would regularly pay good money to see games with scores like 150 to 0. Thus, without a fiercely battled contest, where the identity of the winner is not a foregone conclusion, little if any economic cooperation will take place.

Given that competition is at bottom a cooperative effort,[61] we can immediately see that there is no "multitude" of competitive models, at least not along the lines sketched out by Demsetz. Lowering prices and introducing better products? Yes, of course. But throwing a brick through a rival's plate glass window? How can that be competitive? If it isn't cooperative, it cannot be competitive either, at least not in the legal and economic sense. What is it then? It is a private property rights violation, pure and simple. It doesn't deserve to be listed alongside such peaceful activities as price and quality competition.[62]

Demsetz does concede that "social scien[tists] and the humanist philosophers" (p. 112) make an ethical distinction between the tossed brick and the lowered price. But biologists do not. Even apart from his glowing rendition of sociobiology, it is clear where Demsetz's loyalties lie, academic discipline-wise: with the latter.

Am I being unfair to Demsetz? He does, after all, allow that "there is a strong correlation between the efficiency consequences of various forms of competition and the degree to which they are judged to be proper or ethical" (p. 113). He could

scarcely make that point if he absolutely refused to draw ethical distinctions between the brick and the lowered price. However, he takes this all back (and more) when it comes to his analysis of monopoly:

> The securing of monopoly through legislated protection, however, seems much less likely to yield these gains than the securing of monopoly through superior products. It is difficult for me to see how to distinguish these two sources of negatively sloped demand curves other than by judging their likely contributions to real wealth, and it is only when judging that ethical considerations become relevant. (p. 113)

Here he is, back at the same old ethics-consists-of-no-more-than-efficiency lemonade stand. If he can't see a *moral* difference, over and above "likely contributions to real wealth" between attaining single seller[63] status by legislative fiat and by satisfying customers, it is hard to see how it can be claimed that he has any moral faculty at all.

There are those, moral relativists, who think that by definition every society, every culture, and even every individual absolutely must[64] have a moral faculty. Even the Nazis and Communists, who killed millions of innocent people, are defended in some quarters as having a moral sense. To the query "How can this be?" they reply "They just have a *different* sense of morals."

But there is a fallacy here. Suppose we come across a new breed of creatures, who speak an entirely different language.[65] Our first task in setting up relations with them is to create and English - X language dictionary. We begin by pointing to an object, and saying "cup." They are accommodating, and point to various cup like objects, and say "plunk" as they do so. They apply "plunk" to glasses, bowls, pots and pans and wastepaper baskets. They refuse to apply it to apples, bananas, bicycles and pencils. We conclude the "plunk" and "cup" are rough translations. Next, we point to the appendage at the end of our leg, and say "foot." They point in the same direction on themselves and say "garr." We say to ourselves, "aha, 'foot' and 'garr' are equivalents in our two languages." But then, rather to our dismay, they point to a rock, a rowboat and a giraffe and use the same word "garr." What are we to make of this? Are we to still maintain that "garr" and "foot" are the same, only that their

understanding of "foot" is *different* than ours? Not a bit of it. We must, reluctantly if need be, conclude that they simply do not *have* a concept of "foot" in their language, at least not commensurate with our own.

Now suppose we meet a "Martian." We are trying to determine whether this creature has a concept of morality or ethics. Thanks to our previous considerations, this is by no means a foregone conclusion. Like good logical positivists, on the contrary, we are going to *test* this proposition. We start out well enough. We maintain what we take as a paradigm case of morality: "It is wrong to kill an innocent baby." Now we invite the Martian, who we have reason to believe speaks the same language, to give us another instance of an ethical statement. He starts off on a good note with "a thrown brick . . . and . . . a reduction in price . . . [are] not viewed as equally ethical" (p. 112). At least this Martian is clearly making the crucial distinction. However, then he goes and ruins it by saying:

> Efficiency seems to be not merely one of the many criteria underlying our notions of ethically correct definitions of private property rights, but an extremely important one. It is difficulty even to describe unambiguously any other criterion for determining what is ethical. (p. 109)

In other words, "ethical" is exhausted completely by "efficient." Alternatively, "ethical" means no more than "efficient." Are we to say that the Martians have a perfectly reasonable, coherent, sensible understanding of the moral realm, it just happens to be somewhat different than our own? Not at all. The plain fact of the matter is that Demsetz lacks an understanding of ethics, in the same way an atheist does not have an appreciation of God, or a color blind person of color, or a tone deaf person of music. Even his distinction between brick throwing and price reducing can now be understood in this vein. He *means* by it (or at least denotes) no more, and no less, than that bricks are far less *efficient* in an economic sense than are price alterations. The logical implication is that if this situation were somehow reversed, that is, that brick throwing became a better means to achieve wealth maximization than diddling with prices, then Demsetz would line up behind the former and eschew the latter. Nor would it be a matter, for him, of *balancing* the moral against the efficacious; reluctantly accepting the wealth maximization goal, but regretting the loss of morality. In

the Demsetz world view, the two are precisely the *same*. There is nothing to regret. There is no trade off. If brick throwing gets us out onto the highest indifference curve possible, well by gum and by golly, that is the very meaning of ethical behavior.[66]

Conclusion

This way of interpreting Demsetz is buttressed by his concluding remarks. Here we are treated to yet another version of ethical relativism: "The ethical weight accorded efficiency in property rights assignments is thus dependent on the ethical properties of prevailing tastes and preferences" (p. 114).

These tastes and preferences, in turn, are determined by survival. "Life styles that promote survival come to be viewed as ethical. . . . Our present preferences and tastes must reflect in large part their survival promoting capabilities" (ibid.). This means that survival, a sort of "super efficiency," is what ethics amounts to.

Now, there is a good bit of truth to this. Our moral codes hardly amount to a recipe for mass suicide. On the contrary, the rules of the Bible, the Talmud, and other religious documents have passed the test of time; those societies living in at least rough accordance with them have prospered to a far greater degree than those which have not. However, this is no warrant for *equating* human survival with morality. Suppose, just suppose, that there were hundreds of intelligent species besides our own in the universe, and that for some perverse reason our survival depended upon killing them all, even though they did not in any way directly threaten our survival. (For example, a Super Being such as "Q" in the Star Trek series demanded that we kill everyone else, or he would kill us.) Here is a case where no facile equation of morality and human survival could pass muster.

Demsetz imparts a morally relativistic "spin" to his understanding of the relationship between survival and ethics. It depends on time, or place, or war, or peace, or population size, or the degree of wealth or poverty. He states:

> what has survival capability in one environment, or century, may not do so well in another. A command social structure is likely to do better in small tribal societies than in large complex societies. War and peace are likely to bring forth different ethical precepts. A society of plenty can tolerate more

> altruism toward special hardship cases than can a society of poverty. We are bound to view the proper resolution of legal problems from the perspective of what presently seems efficient. (p. 115)

Yes, yes, different things may be required for survival in different contexts, but this doesn't make what is moral in one case immoral in another. It doesn't matter that a command economy can do more harm in large complex societies than in small simple ones. It is wrong in both cases to violate economic freedom. It is simply not true that rape, theft, brutality, etc., which are far more prevalent in war than in peace become moral on that ground. Charitable giving is easier to finance (and less needed) under general affluence than poverty, but it is still a moral act in both cases.

In contrast to the amoralism emanating from Demsetz, Knight is a pillar of objectivist rectitude on this matter. Says he:

> The conditions of survival are merely the laws of biology. It may well be the part of prudence to act in accordance with them, assuming that one *wants* to survive, but it can hardly be associated with the notions of right or duty, and if these have no meaning beyond prudence the realm of ethics is illusory. (p. 115)[67]

Needless to say, the present author warmly supports this view. The problem is, Demsetz offers this citation only to criticize Knight. His criticism amounts to little more than a rehearsal of sociobiology, only applied, now, to ethics itself: "it is the set of ethics that does survive and prosper that will identify what is efficient and what is not" (p. 115).

Demsetz ends his essay on what can best be described as an uncertain note. On the one hand, he seems to see the present debate—between he and Coase on the one hand and Rothbard and myself on the other—as wasteful:

> Those who value freedom highly would seem to be wasteful of their efforts and those of others to issue a call to debate where no substantial issue of freedom is involved; the choice between alternative private property definitions would seem a case in point. (p. 116)

But this is unacceptable. It is not true that no substantial issue of freedom is involved in this disagreement. On the contrary, there is a chasm as large as the Grand Canyon separating the two sides. In my own view, what Demsetz is pleased to call his "alternative private property definition" is no such thing. Rather, it is almost a complete abnegation of property rights. Moreover, it is a chimera. It is an attempt to define property not in terms of past accomplishments—homesteading, trade, etc.—but on the basis of supposed future consequences. It is based on a judge's arbitrary opinion as to who can best utilize a given resource. Demsetz, for his part, is equally critical of the Locke-Rothbard view. He cannot paper over this dispute in the last paragraph of his essay after devoting all of his efforts to a critique.

On the other hand, appearing to take this all back, he seems to find some value in debate, "as in arguing for deregulation" (p. 116). This, too, is hard to follow, as the entire Demsetzian edifice is based on a call for regulation of markets, albeit by judges, not by politicians, bureaucrats, licensing boards, wages and price controllers, and other more typical regulators.

Consider the counterargument: Demsetz doesn't at all call for regulations; he merely favors a different kind of decision in property rights disputes. However much one may disagree with his views, it is improper to call them akin to a defense of economic regulation.

The problem with this defense is that regulations, too, are "merely a different kind of decision in property rights disputes." Take rent control for example, the very paradigm case of an economic regulation. Is it not true that this is "merely a different kind of decision in property rights disputes?" The landlord wants to charge $500. The sitting tenant thinks that it would be more fair for him to pay only $300. Is this not a property rights dispute?

But couldn't this also be said of the free enterprise answer to the dispute—to which undoubtedly Demsetz would agree—namely, that the landlord should be able to set whatever rent he wishes for his property? No. It would be a travesty of language to maintain that defending the landlord's right to own his property, and to demand whatever rent he wishes for it is tantamount to regulating his business.

As it happens, it is inconsistent with his general philosophy for Demsetz to take an anti-rent control stance, however much he may wish to do so in other contexts. For if he is to remain true to

the Coasian Law and Economics doctrine, he cannot blithely condemn all rent controls. On the contrary, he must first determine whether the landlord's use of the rental fee of $500 will benefit him more than the loss of this money will negatively impact on the tenant. Who says, after all, that the landlord is the "rightful" owner of the property in question? For the Demsetzes of the world, this should always remain an open question or perhaps a meaningless one. It is for the judge to decide upon this, and he should do so, as we have seen, based upon which decision will maximize total wealth. There is absolutely no reason to suppose that this *always* implies that landlords should be allowed to keep their property, let alone unilaterally set the rent level. It must of course be conceded that Demsetz and his colleagues have been in the forefront of the effort to marshall evidence showing the deleterious effects of rent control. However, as a consistent Demsetzian, he cannot universally condemn this law.

Our author ends his essay with a ringing call for freedom. But what can this possibly mean, if freedom consists of no more than wealth maximization? I would find his well spoken call for freedom far more eloquent if for Demsetz there were some *difference* between freedom and economic efficiency.

As I see matters, far from there being no real disagreement between us, we have only begun to scratch the surface of disputation. What we sorely need is more debate, not less. I therefore invite Demsetz and other devotees of the Law and Economics philosophy to continue the discussion. It is the only hope of attaining the truth on these very interesting and important matters.

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[1] This is only the tip of the veritable iceberg. These four are perhaps the most prominent of the Coasians. But most economists have now accepted the methodology and tools of analysis pioneered by Coase. Indeed, it is probably no exaggeration to say of virtually the entire profession that we "are all Coasians now." See Samuelson (1976, p. 193) who quotes Milton Friedman to the effect that we are "all Keynesians now."

[2] Indeed, the very concept of "fault" began to sound archaic.

[3] Posner (1986, p, 45) makes this point most succinctly. He states: "It does not follow, however, that the initial assignment of rights is completely immaterial from an efficiency standpoint. Since transactions are not costless, efficiency is promoted by assigning the legal right to the party who would buy it—the railroad in our first hypothetical situation and the farmer in the second—if it were assigned initially to the other party."

[4] Pigou, of course, also dealt with "positive externalities," not just with property rights invasions.

[5] That is, of value to other people as well as to the owner.

[6] Becker (1964) makes this distinction between general and specific with regard to on-the-job training.

[7] I also assume that the human capital of the farmer can not serve as collateral, or that if it can, it is worth less than the damages in this made up case.

[8] All otherwise unidentified page number citations refer to this one article.

[9] Despite numerous efforts, I have been unable to uncover the source of this quotation.

[10] This is a charitable interpretation. One might say, alternatively, that Demsetz didn't really "assume away" wealth or income effects; he just *ignored* them.

[11] In this context, that is. Block (1977a) did indeed *go on* to take Demsetz (1966) to task, but not for a confusion over specific vs. general wealth. It did so on entirely different grounds.

[12] It is possible to criticize *all* uses of indifference curves.

The main problem is that there is no way to reconcile them with human commercial interaction. In the real world, markets consist of people ranking goods, preferring and setting aside, ordering (Mises 1963; Rothbard 1962). If I buy a newspaper for $.50 it is because I value the paper *more* than $.50. If the vendor sells it to me, it is because he values it *less* than my coins. Technically speaking, there can be no indifference in such a world.

On the other hand, "indifference" is a perfectly good English word, and it must refer to *something* in order to be used coherently. In ordinary language, it refers to cases where we just don't care very much which of two alternatives we choose. But once we act, we demonstrate, by that very fact, that we preferred the option we took to the one we renounced. In common parlance, Buridan's Ass was indifferent to the two bales of hay. However, once he headed off in one direction, as a technical matter of economics we are entitled to say that he preferred the bale toward which he moved to the one he spurned; that there is no way that he, or anyone else for that matter, can *demonstrate* indifference. Even standing equi-distant between the two haystacks, and starving to death, does not demonstrate indifference. It shows only that the stupid animal preferred death to picking one of the bales, either of them.

[13] He allows that this has a certain intuitive appeal, although "the ownership by the gardener of the right to control the soot content of the air does not" (p. 100). As stated, this is something of a straw man, since I never called for total control of the air's soot content by the gardener. Bather, following Rothbard (1982b), I took the view that the gardener has the right to be free of invasive interferences with his physical and human property (lungs). As to whether this is intuitively appealing, there is little doubt that in this rabidly ecological oriented age, it certainly is.

However, to be fair to Demsetz, we must realize that he wrote in the late 1970s, long before the advent of modern "greenism."

[14] They might well, however. Both the winning and losing teams may obtain a psychic advantage from playing the game. This is so, for the losers, if their love for the sport outweighs their frustration at being second best.

[15] Let it not be objected that both teams gain revenue from the fact that they can sell large numbers of expensive tickets to an audience if their game is expected to be a competitive one. This is true, and in this regard sports are indeed

also mutually beneficial. But this is the sense in which athletic events are actually a competitive business. Both teams, that is, gain not from the game they play with *each other*, but rather from the transaction they are both able to effect with their *customers*. In the pure sense of sport, unrelated to commercial endeavors, one team's gain is still the other's loss.

[16] Here is Hamowy's (1978, p. 289) trenchant criticism of Hayek's (1960) version of Demsetz's example: "Is the owner of the spring acting coercively if he refuses to sell his water at *any* price? Suppose, for example, he looks upon his spring as sacred and to offer its holy water to non-believers a sacrilege. Here is a situation which would not fall under Hayek's definition of coercion since the owner forces *no* action on the settlers."

[17] Demsetz, in taking the opposite position, is acting as if the cult is erroneous in its religious beliefs. But assume for the moment the "cultists" to be correct in their world view. It would then be justified—according to Demsetz—not only to protect them from the onslaught of the cancer victims, but to seize the assets of the latter if this would in any way help the former. Suppose, that is, that there *was* a cancer cure, owned, now, by the victims of this dread disease, but that for some reason the worshippers determined that this material would help them in their efforts to contact the Deity. Then, according to the logic established by Demsetz, it would be appropriate public policy to forcibly transfer the cure to the control of the religious "fanatics." Surely Demsetz knows nothing—for certain—that would render such a conclusion invalid.

[18] There is all the difference in the world between these two concepts. For example, I might prefer that all ice cream come in one flavor, the one favored most by me. But I would hardly urge the passage of a law which banned all other alternatives.

[19] That is, *physically* health oriented direction. If the worshippers are correct, then it is only their remedy which will achieve *spiritual* health.

[20] "Preferable" is one thing; taking the cancer cure away from the worshippers by force is entirely a different matter. Suppose the religious sect fought back to defend its legitimate ownership of the Austrian Pure Snow Trees, based on "being the first to mix their sweat and blood with the island's soil, thus satisfying Rothbard's principle of 'original ownership'" (p. 100). Would the forces of law and order be justified in doing to them what was done to the Branch Davidian sect in Waco, Texas? No

less than that seems to be implied by the Demsetzian analysis.

[21] It is also logically inconsistent, since the argument of the draft board is that this system of raising an army is necessary in order to "promote freedom," by protecting the domestic nation from the external aggressor. The problem is, the country which relies on compulsion to attract soldiers for this purpose *starts* off by violating the very rights of the citizenry the war was supposedly engaged in to overcome.

[22] How is *that* justified as "ethically superior to alternatives?" (p. 100).

[23] Demsetz's example is so forceful by virtue of the fact that he expects his readers will consider a cure for cancer to be more valuable than a pagan rite—he knows it is likely they will engage in interpersonal comparisons of utility.

[24] I am not objecting to the technique of artificial constructions *per se*. Hypothetical arguments have their undoubted philosophical use. The point being made here, in contrast, is that libertarian rules are only inconsistent with broad based utilitarian concerns in the imagination, not in reality.

[25] I must say "possible support" in this case, since he hasn't consented to this proposition.

[26] However, the draft during World War II furnishes what for many people would be a counter example.

[27] The tree worship is frivolous only to us; to the members of Demsetz's fictitious religious sect, this practice is anything but. Otherwise, they would hardly withhold a cancer cure from a suffering humanity. In any even remotely real world situation, possibly, some of their own number might have cancer. Alternatively, the money that would be forthcoming from highly motivated purchasers would likely sway them to go off and worship some other kinds of entities.

[28] See Cordato (1989, 1992); North (1992); Kreeke (1992).

[29] True, far more people hold day jobs than night jobs. Therefore there are far more "day people" than "night people." If we can infer interpersonal comparisons of utility from so light a straw (not likely!), we can then indeed agree with Demsetz that in the general case wealth will be maximized by allowing noise to emanate from the tennis court during the hours of light, not darkness. But even here we cannot be sure that this will hold true in any specific case.

On the other hand, the situation in very hot climates would seem to cut against Demsetz's supposition. There, the only

practical time to play tennis is at night, since it is somewhat cooler then. One might as well sleep (take a siesta) during the day, for this reason. (I owe this point to Karen Selick.) Are we then to have one set of property rights for the northern climes, and a different one for the southern? Suppose that the temperature changes, due to global warming, or cooling. Should we then change the previous set of property rights?

[30] Such as that Furnished by the Austrian Pure Snow tree cancer cure example. The fact that he offered this criticism is evidence of the fact that he *does* consider homesteading to be logically coherent, even if wrong. His analysis in that section of the paper is thus incompatible with that which appears in this section.

[31] It is somewhat difficult to discern whether or not Demsetz is quoting Rothbard accurately, and in context. This is because Demsetz, again, fails to cite his source. Efforts on the part of the present author to trace down this citation again proved to be of no avail.

[32] For a critique of the literature supporting this perspective, see Block (1983); and Hummel (1990).

[33] We need not mention positive external economies, since these would be listed under beneficial, not harmful, effects.

[34] Praxeologically, the claim of utility enhancement must be limited to the *ex ante* sense. But as a matter of practicality, the presumption is that trades, particularly if they are ongoing, promote utility gains for both parties in the *ex post* sense as well. One could, conceivably, purchase a one shot item (a meal while on the road, a toy bought on impulse) and not achieve a utility gain *ex post*. But this can hardly often apply to repeat purchases.

[35] The Austrians, of course, need do no such thing. For a critique of this notion, see Rothbard (1962); Armentano (1972, 1982); Armstrong (1982); Block (1977b).

[36] See Block (1990), and Rothbard (1982a).

[37] Does this mean that a person who moves into a dangerous neighborhood, e.g., Harlem in New York City, must not protest at the epidemic of crime he finds there? Not a bit of it. The cleanliness of the air, and noise pollution at different times *of* day or night, *define* the property rights in operation there. They determine what the newcomer can homestead, and what is owned by others. (I owe this example to Ben Klein.)

Crime, in contrast, is an attack on the person or property of the new settler. These are objects over which he has clear title before he came to inhabit the new area. For example, his own

body. As a self owner, he has a right not to be murdered. If this happens to him, he (his estate) has the right to the fullest compensation allowed by law, even if the "reasonable man" would not have ventured there in the first place. If he brings property such as a car with him, and people trespass upon it, they have no right to do so even if this is the practice common in Harlem. Presumably, Posner would rise to the defense of anyone victimized in such a manner.

[38] One wonders whether Demsetz would accept as a refutation of his theory those cases where there are *no* minimum highway speed limits?

[39] Chicago economists, as well as Austrians, have been preaching this message for years. On the former, see M. Friedman (1980); D. Friedman (1989); on the latter, Mises ([1969] 1981); Hayek (1989); Hoppe (1989).

[40] There is a bit of an equivocation as to the institution for which Demsetz is claiming such great efficiency. On the one hand, he on numerous occasions states that this is the judicial bench, On the other hand, the officials in charge of imposing minimum highway speed limits are not judges, but rather highway bureaucrats, or legislators. In Demsetz, then, we have a writer who deems the state, the political process, the bureaucracy, government courts, to be highly efficient. That he is despite this widely seen as an advocate of markets is a phenomenon in need of explanation.

[41] I now assume that there are only the two firms to be considered, the factory and the laundry.

[42] Assuming, again, that the only way this air quality could be altered would be by intervention of the factory.

[43] That is, after he becomes the owner of it. And this he can do by "mixing his labor with the land" in a productive manner.

[44] We here assume that rubber tires of one level of thickness is sufficient to prevent damage.

[45] We are now discussing cost in the superficial out-of-pocket sense of this terra, not the proper alternative cost doctrine.

[46] I abstract from the possibility of multiple collisions, at different points of the dock.

[47] If the boat is made of wood, and the dock of metal, the former may be easier to destroy, and hence deserving of more protection, under the vision we are now considering.

[48] Due, of course, to our many assumptions which violate

economic axioms. But the decision would still be arbitrary, unless we also jettison our analysis of interpersonal comparisons of utility.

[49] This does not apply to a firm or a condominium which announces beforehand that this is precisely the role of "justice" it will employ. Then, if one enters into its territory, one in effect gives consent to be bound by this rather idiosyncratic notion of justice.

[50] At least under the artificial assumptions under which we are now laboring.

[51] In characterizing Demsetz as a road or water socialist, I mean only to point to his lack of reliance on private property rights in these areas. I certainly do not mean to imply that he takes an anti-market stance on other issues, such as minimum wage, rent control, trade, welfare, etc.

[52] This need be no more of a normative claim than Demsetz's view that liability *should* be assigned to the least cost avoider. What Demsetz really means by this is the positive claim "If you want to maximize wealth, then liability rules should be written in such terminology." Likewise, our claim could also be couched in this manner: "If you want to maximize wealth, privatize all resources, particularly including aqueous ones." However, while I do indeed subscribe to this claim, I *also* hold the *normative* view that it is *right* that private property rights be extended to all resources. This is because it is a violation of the libertarian legal code to prohibit any non-invasive act, and homesteading the oceans (or any other virgin territory) is certainly not invasive. On the libertarian legal code, see Hoppe (1993), Rothbard (1982a). On lake and ocean privatization, see Anderson (1983), Block (1992).

[53] Subject, of course, to the basic libertarian axiom of non-aggression. For example, no lake owner can entice the fishing or boating public to his facility, and then kill them with impunity, on the grounds that it is "his" lake. This is no more justified than the same occurrence in a private residence.

[54] Paradoxically, Coase (1974) has done more than perhaps anyone else to show the inapplicability of the externalities model to bodies of water. One would therefore think that people who write in his Law and Economics tradition, such as Demsetz, would have incorporated these insights into his analysis.

[55] Dollar voting takes place every day, dozens of times. Political votes occur every two or four years. The former can be

pinpointed as narrowly as that for different flavors of bubble gum; the latter is a package deal, where the citizen cannot distinguish between a candidate's activities on scores of fronts. There is a case, moreover, for rational voter ignorance, given the unlikelihood that any one person will be a tie breaker in an election; this of course does not apply to the consumer in a market who buys for himself.

[56] I owe this point to Karen Selick.

[57] But if there is one thing that is certain, it is that people lie to pollsters. In the absence of markets, of course, there is no way that true preferences can be revealed, or demonstrated.

[58] Abstracting from the fact that in Israel these organizations typically receive state subsidies. What I have in mind is perhaps best thought of as a Platonic Kibbutz, one which adheres to all the voluntary communal aspects of that kind of group, but does not receive tax money forcibly mulcted from nonmembers.

[59] I owe this example to Marshall Fritz.

[60] I am forced to speak in this modest and unsure terminology given that without interpersonal comparisons of utility, we are at sea without a rudder as far as such calculations are concerned. More precisely, it is not objectionable at all to say in common parlance that had one man asked directions of five or ten, the gain to the former is likely to be less than the loss to the latter. In ordinary language, there can be no objection. As a commonsensical matter, we make interpersonal comparisons of utility all the day long. But Demsetz and I are engaged in an intellectual debate, where a certain precision of language is required.

[61] This of course is not to deny that rivalry may well, and often does, exist between the competitive parties.

[62] To be sure, one can define competition to include both invasive and non-invasive activities. Stipulative definitions cover a multitude of opinions. But to conflate these very different kinds of behavior is at least problematic from the point of view of precision of language. It also leaves a large moral vacuum, in that these activities have very different ethical implications.

[63] For an explanation of why I refuse to employ the word "monopoly" to describe market success, see Armstrong (1982), Block (1977a), Armentano (1972, 1982) and especially Rothbard (1962).

[64] Note the contradiction here?

[65] I owe this example to Martin Lean.

[66] No doubt there are many more people who equate wealth maximization with ethics than Demsetz. My first experience with this phenomenon, however, was with Henry Manne at a Liberty Fund conference in 1988 who maintained through thick and thin that economic freedom consisted of no more than maximizing GNP and its rate of growth. See statements by Manne in Block (1991), pp. 12–14, 49–50, 125–26.

[67] Knight 1935 (p. 71), quoted in Demsetz (p. 115).

Information and the Market Economy: A Note on a Common Marxist Fallacy

Nicolai Juul Foss

Marxists have seldom been noted for much economic sophistication in their critique of the capitalist market economy. Marxist reasoning was essentially easy game for Mises ([1920] 1990) in his classic initiation of what came later to be called "the socialist calculation debate." However, later market socialist contributions to this debate were for a long time believed to have provided the definitive answer to Mises's challenge. As we all know well today, this understanding is completely fallacious (Lavoie 1985; Salerno 1993; Steele 1993), and as result of the Austrian critique of socialism, many contemporary socialists have become unsure of the viability of the socialist project (for example, Gamble 1986; Hahn 1990).

However, socialists have certainly not given up hope. In a relatively recent article, the Marxist John O'Neill (1989) put forward a radical critique of the market order; one that has often been given more implicit articulation by other socialists, but had not been given its fully explicit statement until O'Neill's article. I will here argue that this critique amounts to a fallacy.

Although O'Neill's critique was directed towards the increasing prominence of market socialism, he primarily argued against perhaps the best known Austrian defense of the market, that is to say, Hayek's conceptualization of the market as an information providing mechanism. Hayek's conceptualization and corresponding defence of the market in knowledge terms is well-known and influential among recent market socialist writers.

Mises's ([1920] 1990, 1949) different and even more fundamental conceptualization of the calculation problem as one of appraisal, rather than optimal provision of information (Salerno 1993), has not been noticed or separated from the Hayekian argument. It is doubtful whether O'Neill's critique can be directed against Mises's understanding of the calculation problem as one of appraisal.

Furthermore, in this note, I argue that O'Neill's argument has a little bite against Hayek's arguments in particular and the capitalist market system in general. I wish in this connection to call the attention of Austrians to the important work of the British subjectivist economist, George Richardson, on the coordination of producers' plans and how the market economy allows rational plans to be made (see also Foss 1994, 1995). This is probably best done by later demonstrating the pertinence of Richardson's insights in the present context. Let us begin by briefly examining O'Neill's argument.

O'Neill on Information in a Market Economy

According to O'Neill the Austrian (Hayekian) conceptualization and defense of the capitalist market system is untenable. In fact, it is vulnerable to an essentially Marxian critique: the market is "anarchic," precisely because it *fails* to distribute the information that is necessary for rational decisions with an intertemporal orientation. Specifically,

> that information that is relevant to economic actors, in order that they be able to coordinate their activities, is not communicated, and . . . no mechanism exists to achieve the mutual adjustment of plans. The market *in virtue of its competitive nature* blocks the communication of information and fails to coordinate plans for economic action. That feature of the market is specific to the market as a system of independent producers in competition with one another for the sale of goods. It is not a consequence of complexity or change. (O'Neill 1989, p. 109)

What is here meant by the expression "in virtue of its competitive nature" is that "independent producers in competition with one another" have little or no incentive to disclose much of the information that is relevant to their decisionmaking. This is argued in terms of the (one-shot) prisoners' dilemma: "Given that all parties are self-interested, the competitively stable strategy is non-cooperation" (ibid.). Mutual exchange of information may benefit everybody, but instead the suboptimal situation is realized.

The reasoning behind this seems to be the following: In the absence of communication of information on future-directed

production plans, producers in a market may, for example, invest too much, and realize losses when the new more roundabout processes of production mature with a larger output that drives prices down. The new equilibrium price is much lower than the price that would have resulted from the communication of information on investment plans.[1]

In contrast to Hayek, prices will *not* act to satisfactorily coordinate plans, for prices only reflect past and present wants and scarcities, not future ones. (Note that this critique cannot be directed against Mises's future-oriented conceptualization of the calculation problem.) As a result, plans will not be coordinated, and the door is open for Marxian business cycles caused by maladjustments of producers' plans (somewhat reminiscent of ordinary pig-cycles). Since they are fundamentally based on market organization, market socialism schemes are also vulnerable to such objections. The solution lies in some cooperative, socialist economy with a mechanism that efficiently distributes information, and thereby "does the job that Hayek falsely claims the price mechanism performs" (O'Neill 1989, p. 109).

O'Neill's assertions are open to critique on numerous counts For example, he neglects that current prices to some extent reflect producers' plans, since these plans result in factor demands that are registered in prices. Also, forward markets exist for some products and services. Finally, producers may form reliable expectations based on competitors' past actions. To some extent, all this dampens the severity of intertemporal coordination failures.

Here I shall, however, restrict myself to the following critique of his reasoning: it is not true that the capitalist market system lacks mechanisms for coordinating plans among independent but not interdependent producers. To believe so is to operate with an impoverished understanding of "the economic institutions of capitalism" (Williamson 1985); an understanding that is, ironically, best represented by older versions of neoclassical economics. In fact, the capitalist market system does contain cooperative mechanisms for information dissemination.

In other words, while O'Neill's critique may be pertinent in connection with specific (and outdated) economic models, it is much less pertinent in connection with economic reality and with sophisticated theories of this reality. In the following section I draw primarily on the work of George Richardson and also refer to the so-called "new institutional economics" in order

to underscore this assertion.

Hayek, Richardson, and the New Institutional Economics

O'Neill's discussion largely centers around the work of Friedrich A. Hayek. In his article, "The Use of Knowledge in Society," Hayek explained how the price system solves "the economic problem of society" by making all the dispersed pieces of knowledge that underlie decisionmaking mesh. By providing incentives to react rationally to changing scarcities, for example, substitute one raw material for another, the price system may in some strained sense be said to transmit information. But notice that producers do not actually receive the information that caused prices to change. To borrow Hayek's famous example, when a tin mine closes down, it is not necessary for the efficient functioning of the economy that *this* information should be disseminated. What is, however, necessary is that the price system should register the diminished supply of tin. Hayek's claim is that the price system in fact does this, and that the market economy therefore operates with an information minimum, that is to say, economizes on information costs.

Now, Hayek can in fact be understood as talking about one very special situation, though one that neoclassical economists are traditionally very fond of: perfect competition equilibrium. Seemingly, he says that the *only* signal producers need in order to make a rational decision that dovetails with the decisions of other producers is the price. If that is what he says, he is talking about an perfect competition equilibrium situation; for it is only here that price provides sufficient guidance to action. Outside of this situation, producers will have to think strategically, that is form conjectures on each others plans and actions. They will have to perform appraisals. But can they do this? Can they form reliable expectations on each others plans and actions? O'Neill denies that. However, as we shall see, this inability to coordinate actions is a feature of a specific economic model; it is not a feature of reality. In order to criticize the perfect competition model on grounds that are closely related to O'Neill's critique of the market system, George B. Richardson in his 1960 contribution, *Information and Investment* suggested the following *Gedanken*-experiment: suppose that producers under perfect competition—but without any forward markets—are suddenly hit by some increase in demand that affects them all and is

expected to persist. What will be their responses?; how much plant should they order? The problem is that the information on other firms' investment decisions that would be necessary for calculating optimal investments is not available to anyone, given the assumptions of the model. Firms may guess, of course, but those guesses must involve the guesses of other firms, which would seem to lead into an infinite regress. The endogenous uncertainty thus created implies that there is no equilibrium in the sequence of guesses. On the whole, producers are logically unable to make any rational decisions, specifically, to rationally invest.

It could be argued of course that the reason for the result lies in the particular set-up chosen, namely the perfect competition model with its assumption of strictly local information, etc. True, the result depends on the setup—which is in fact precisely what Richardson wishes to demonstrate. Richardson's main, and constructive, point is that a number of institutions, practices, norms, etc., that exist in the reality of the capitalist market system, but are completely inexplicable within the perfect competition model, in fact has the beneficial consequence that the severity of the coordination problem is strongly reduced.

The importance of "imperfections" for the effective working of the economy is perhaps most obvious in the case of the coordination of investment projects that are *complementary* to each other, in the sense that the sum of their returns when undertaken simultaneously is greater than if they are undertaken in an isolated way. Richardson denies that the price-mechanism generally will do the job of coordinating complementary investments unassisted. However, "imperfections" such as reputation, trust, and contractual agreements perform the tasks of easing knowledge flows over stages of production and contributing commitments, that is, they reduce information costs and align incentives. This promotes the coordination of investment plans.

In the case of *competitive investments*, the kind of investments O'Neill seems to be talking about, cartel arrangements, price notification schemes and numerous other "restrictive" trade practices allow producers to anticipate each others actions, for example, by providing information (e.g., price notification schemes). Thus, Richardson suggests a rationale for a much less restrictive antitrust attitude towards such arrangements; a view that any Austrian would clearly endorse. His basic position is

that markets and their so-called "imperfections" are essentially information structures, and that overly interventionist public policies may destroy this information provision. Arguably, this view dates back to the pro-business views of Alfred Marshall (Foss 1995).

In Richardson's celebrated 1972 article, "The Organization of Industry," he strongly emphasizes that this "Organization" is in reality more than hierarchical direction and is more than the operation of the pure price mechanism; to a large extent it is a matter of all sorts of cooperative relations between firms. Industry, says Richardson, can be thought of as composed of numerous "activities" (research and development, manufacturing, sales and service, etc.), which have to be carried out by firms with the requisite "capabilities." Thus, Richardson is inviting us to see the firm as a pool of productive and organizational knowledge (some of which may be tacit). Activities which require the same or closely related capabilities are "similar." Firms find it expedient, for the most part, to concentrate on similar activities, since incorporating "dissimilar" activities under the corporate umbrella implies numerous inefficiencies. This forms a basis for a theory of "cooperation," that is of inter-firm relations, such as long-term contracts, joint ventures, licensing agreements, etc. Firms enter into cooperative relations when they need access to complementary but dissimilar activities. Inter-firm coordination schemes also serve to stabilize the economic system.

To sum up on Richardson's work, a number of the economic institutions of the capitalist market system exist and have the beneficial effect, and may in fact exist because of this effect, of making interaction coordination problems much less severe.

This basic insight also informs much of the recent economic literature on institutions ("neo-institutionalism"). Although Robert Sugden's (1986) work on norms and Oliver Williamson's (1985) work on the contractual institutions of the capitalist market system—to settle on two of the most prominent examples—are in many ways far from each other, they are agreed on the basic insight that institutions can be understood as responses to social interaction problems á la Richardson's investment coordination problem. It is now a very general recognition in this literature—and in fact in economics in general—that in addition to information contained in market prices, social norms and in particular business practices, imposing some restrictions and coherence on the individual decisions and information generated

by institutions external to the market, play important roles in achieving order in market processes.

Is this contrary to the Austrian vision of the market order? Not at all. Notice that Hayek's and Richardson's work are complementary. Richardson adds to Hayek's picture by pointing out that stocks of knowledge (capabilities) may not only stand in a competitive relation to each other, but in reality may also be complementary. However, much of the knowledge that is relevant to economic affairs is tacit, a point that both Hayek and Richardson are eager to drive home. Partly because of such tacitness, individual firms will normally not have superior or even precise knowledge about the whole of the production process into which their products enter. It is likely that nobody will in fact possess all of this knowledge. Of course, this does not mean that "the industry" does not "know" how to produce. To paraphrase Hayek (1945) with a bow to Richardson, the marvel is precisely that competition *and cooperation* ensure that effective use is made of capabilities that are not possessed by any single firm. But firms are not completely self-contained; as Richardson points out (1972, p. 855), effective cooperation will normally require some knowledge of "neighboring" capabilities—those possessed by other firms—so that "their limited individual fields of vision sufficiently overlap so that . . . the relevant information is communicated" (Hayek 1945, p. 86).

Richardson also links up with the Austrian understanding of the market in a somewhat different way. In Richardson's perspective, much of "the organization of industry" is a matter of discovering which capabilities are best for you as a producer, where and when. Now, Hayek saw "The Meaning of Competition" as primarily a matter of teaching us "*who* will serve us well; which grocer or travel agency, which department store or hotel, which doctor or solicitor, we can expect to provide the most satisfactory solution for whatever particular personal problem we may have to face" (Hayek 1946, p. 97). In other words, one of the benefits of the market system, including its modes of competition and cooperation, is precisely that it makes *capabilities* visible to the participants. This is completely contrary to O'Neill's analysis; however, it is decidedly much closer to reality than O'Neill's understanding of the capitalist market system.

I conclude that O'Neills' information-based critique of the market economy, whether capitalist or socialist, does not hold water. His critique may justifiably be directed against the perfect

competition model; however, it cannot be directed against neither real-world market systems nor recent neo-institutionalist economics. In reality numerous institutions support the operation of the pure price mechanism, thus stabilizing the social landscape and assisting the coordination of plans, partly through disseminating information. This is demonstrated in the work of George Richardson, which, because of its many affinities to Austrian economics, deserves to be more recognized among Austrians. In other words, O'Neill's attempt to revive the Marxian theory of the business cycle, his critique of Austrian economics and his critique of market socialism are open to strong doubts. This is because they are based on a lack of understanding of both economic reality and recent economics.

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[1] See Steele (1993, pp. 248–53) for some points not recounted here.

Ethics and Economic Progress. By James M. Buchanan. Norman, Okla. and London: University of Oklahoma Press: 1994.

A line of tension runs through much of James Buchanan's work on ethics and economics. On the one hand, he views ethics as subjective: he appeals to no external standards that dictate to individuals what they ought to prefer. Thus, he makes no attempt, in the present book, "to say just how much 'should' be saved, in the aggregate, despite the proposition that we 'should' save more than we do" (p. 35).

On the other hand, he refuses to leave individuals entirely to their own devices. Quite the contrary, he has strong ethical views of his own, which he does not hesitate to recommend. Here lies the tension: if ethics is subjective, why are Buchanan's recommendations more than a reflection of his own tastes? In *Ethics and Economics*, he launches an ingenious, though I think unsuccessful, attempt to show that he can justify certain ethical prescriptions without casting aside subjectivity of preference.

His argument proceeds as follows: If people increase their hours of work, then, other things being equal, they will benefit others as well as add to their own stock of goods. As people work more, the market expands; this permits the division of labor to proceed apace. Buchanan appeals here to Adam Smith, who "advanced, as a general principle, the notion that the division of labor depends on the extent of the market" (p. 15). Those who labor generate positive externalities for others, but not so those who withdraw into idleness.

If increased work leads to such benefits, a further question arises: How many individuals should be induced to accept the gospel of work? Buchanan looks to the Puritan ethic: if certain virtues associated with the Puritans receive due attention in popular moral education, the blessings of an expanded market lie within reach. Thus, Buchanan can "suggest that individuals, acting strictly in their own interest," should follow the course of action he advocates.

Buchanan's description of the Puritan ethic is in one respect unusual. He remarks: "Much the same logic . . . could be extended to those familiar precepts that call for honesty in dealings, for promise keeping, for truth telling, for respect for person and property, for sobriety, for tolerance. In short, we could readily include the whole set of constraints summarized

within the rubric 'the Puritan virtues'" (p. 79). The Puritans have rarely been praised for their exceptional tolerance; Buchanan's inclusion of this trait as a Puritan virtue would surely surprise Roger Williams. Fortunately, Buchanan's slip leaves his main argument unharmed.

That argument must face an obvious objection, one which Buchanan knows full well. In a competitive economy, individuals balance the benefits of labor and leisure as they wish. If someone wishes to play golf rather than work an extra hour in his medical consulting room, how can Buchanan say that he would be better off, from his own point of view, if his preferences shifted?

Buchanan replies that the "basic neoclassical model," on which the objection just given rests, fails to apply to the case at hand. In the neoclassical model, someone who works an increased amount "receives precisely the value of the addition to the value of product that the extra work generates" (p. 22). This holds true only if inputs are assumed fixed; since the economy in fact grows as labor time increases, the decision to work more benefits others besides the worker himself.

Buchanan's point may be granted, but it fails adequately to respond to the objection. Even if the person who works more does generate positive externalities for others, the question remains: is he better off, in his own eyes, after doing so? Unless the move accords with his own preferences, the answer appears to be no. The economy may be larger; but unless *his* share of goods rises sufficiently to compensate him for his loss of leisure, *he* has failed to benefit.

Buchanan notes and explores a tendency among economists to take preferences as given. Although economists should consider preferences for most purposes "relatively absolute absolutes" (p. 76), this does not require them to abandon all questions of preference formation to the psychologist. Economists must be free to analyze how changes in incentives alter preferences.

Once more Buchanan's point may be granted, and once more the key objection remains without answer. However flexible or subject to analysis an individual's preferences may be, he cannot be pried apart from the actual set of preferences he has. To say, as Buchanan does, that someone *would* be better if he had other preferences misses the point. For a consistent subjectivist, gains or losses in utility can be assessed only against a set of preferences. Put bluntly, for the economist an individual *is* his set of preferences. To compare someone's actual utility with his

utility under different preferences stands on precisely the same footing as an interpersonal utility comparison. If Buchanan thinks that people should work more, or save more, these are ethical judgments of his own, not the outcome of *wertfrei* economic analysis. Insofar as he makes value claims, Buchanan is an ethicist or he is nothing: *tertium non datur*.

Further, Buchanan has pushed his argument for more than it is worth. Suppose he is right that increased work generates positive externalities, while increased leisure does not. In like manner, let us assume him correct on the benefits of saving against spending, which he defends by an analogous argument. Has he shown that individuals who wish for a more productive economy should work rather than loaf, save rather than spend? I do not think so. He has at most shown an advantage of working and saving against their respective alternatives. This hardly suffices for an assessment of total benefits and total costs—one advantage does not make an evaluation. Professional wrestling exacts more physical demands than does teaching (except in the inner cities); does it follow that teaching is 'better'?

And is Buchanan correct that working more generates positive externalities? Yes; but on one condition. The "externalities" add to utility only if consumed; as Adam Smith long ago pointed out, the end of production is consumption.

This obvious truth does not show that Buchanan errs in calling for more work and saving. But it limits the scope of his conclusion: his analysis holds valid only if some people actually consume the increases in productivity his Puritan virtues make possible. (I omit here the complication of satisfaction just from an increase in work—Puritanism with a vengeance). If they do not, Keynes's famous image of the capitalist cake growing ever-larger but never being eaten, though false for nineteenth century Britain, will apply to Buchanan's Puritan Commonwealth.

One last step in Buchanan's case requires a closer look. Suppose, once more, that he is correct about the benefits of increased labor. It does not follow at once that preaching the Puritan virtues has been justified. This is so even if the preaching effectively inculcates the desired values. Once more, Buchanan has not considered the full picture: what has become of the costs imposed by the training in Buchananite virtue? Buchanan tells us that he was able to justify watching four professional football games in one weekend only when he thought of the happy expedient of cracking walnuts as he viewed the games. Thus he assuaged his guilt about wasted time (pp. 7–8). The increased

self-consciousness and anxiety, what one might term the "internal Taylorism," that Puritan education seems liable to produce, must be weighed against its good effects.

Buchanan's short book includes an application of his ideas to taxation policy and a criticism of personal service work, in which the notion of increasing returns figures prominently. His originality and ability to apply economic theory to new subjects inspire respect and admiration; but I cannot think that his revamped Moral Rearmament offers much promise.

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Free Banking and the Free Bankers

Jörg Guido Hülsmann

The literature on free banking has expanded dramatically in the last two decades. A young generation of economists has regained interest in questions of money, banking, and currency that, for a very long time, had disappeared from broad discussion. This renewed interest was partly sparked by poor results from government regulation of the money supply by central banks, as well as other legal devices and restrictions. Such failures have undermined the once-common belief that blessings can flow from government monetary meddling. Because free banking was the historical predecessor of and natural alternative to monetary interventions, the theory and practice of free banking has attracted a great deal of interest.

It is common for people eager to fight for a specific cause to employ intellectual means unfit to serve their ends. As a result, they may achieve the opposite of their intentions, undermining the ideals and ideas they are seeking to promote.

Such is the case with free banking. The case for authentic free banking has been obscured by the strongest defenders of free banking.[1] In defending views that are not only unrelated to free banking but even fallacious, the free bankers do much harm to their case, inadvertently adding weight to the critique of free banking offered by advocates of central banking and government money.

We can divide the advocates of free banking into two groups. The first group proceeds from the assumption that the money and banking sector can operate with virtually no money at all. Within this group, there are additional disagreements. They concern the questions of whether *laissez-faire* would only be efficient in a situation in which no money is used[2] or whether free banking would even actively bring such a situation about.[3]

The internal dispute within this first group is not essential to understanding a more fundamental fallacy of its theory. The hope of a high degree of division of labor without the use of money is futile; there can be no “unit of account” without indirect exchange. Economic calculation presupposes the use of a

general medium of exchange. Everyone is, indeed, free to *translate* a money calculation into whatever unit he likes.

Using, for example, coat hangers as the "unit of account," one could calculate a profit of 1000 coat hangers from an investment. Yet this calculation is nothing but an algebraic expression of: "*For the money* which was spent in the investment I could have bought 500 coat hangers, and *for the money* I received in exchange of the product of the investment I could buy 1500 coat hangers. If after my investment, my money can buy more coat hangers, I am richer than before. In the same sense my investment can be regarded as profitable." No *numéraire* or "commodity bundle" or anything else could serve as a calculation unit if there were no money in use. No indirect exchange can be settled without the use of money.

The focus of our thesis, therefore, lies on the discussion of the second group, comprising the more common free bankers. This group shares the view that no modern society is possible without the use of money.[4] They disagree, however, over the social and economic effects caused by money substitutes. Some of them claim that the practicability of free banking requires full coverage of money substitutes. If the issuer of each ticket grants the right to redeem, at par and at the arbitrary request of the holder, a certain quantity of money has to be held as a 100 percent reserve. Where this is the case, the money substitutes have the character of certificates. By contrast, tickets issued on a less than 100 percent reserve are called fiduciary money substitutes. They are no longer certificates because they are only fractionally covered by the quantity of money to which they represent a claim.

In addition, the "free bankers" of this second group claim that fractional reserve banking would not only be practicable but also beneficial. Predictably, then, they also argue that 100 percent reserve banking has considerable disadvantages. A critique of their tenets, therefore, has to embrace both their arguments in favor of fractional and against 100 percent reserves. First I will discuss free banking on a 100 percent gold standard and the principal arguments that have been pronounced against it. Then I turn to the alleged benefits of free banking on a fractional reserve basis. Finally, I try to explain why neither fractional banking nor banking on a fiat money base can be practicable.

Free Banking on a 100 Percent Gold Standard

Money and Substitutes for Money

In monetary theory, there is hardly a word (apart from inflation) that causes as much confusion as the word money itself. It is vital to distinguish money from money substitutes. Yet this distinction is obfuscated by calling the latter "inside" money and the former "outside" money. The same confusion results from spurious talk of "base money," "basic money," or "high-powered money." These terms suggest that there is no practical difference between them; all the instruments in question are somehow "money." The climax of all this rhetorical excess is undoubtedly attained when fractional reserve advocates George Selgin and Lawrence White speak of gold or the gold dollar "as a substitute for bank deposits."[5]

Does there exist something like a second kind of money? Imagine two scenarios faced by moviegoers. In the first, an individual purchases a ticket, but before entering the theater and taking his seat he decides not to see the movie because there are more urgent things to do. He therefore sells it to somebody who does not yet have one. In the second scenario, the same individual enters the cinema, redeems his ticket with the usher, and takes his seat, but then decides not to stay. His neighbor has found a friend who wants to sit in his place, and he sells his seat to him.

Clearly, in this second scenario his neighbor has not purchased a *substitute for a movie ticket*. He has purchased the seat beside him for the time that the movie is shown. The same holds true in the first case. The first moviegoer did not sell a piece of paper; but sold a seat to a certain showing of the movie. Otherwise he would not have been able to get something in exchange for the ticket. Nobody interested in seeing a film would buy sheets of paper called "tickets" if they were not a means for seeing the film. Neither is anybody eager to buy sheets of paper called banknotes were it not for the convenient disposition of money.

It is also problematic to describe the relationship between money and money substitutes as one of fixed parity or convertibility. In a larger sense all goods exchanged against one another have a parity, that is, the exchange rate. In the same sense, all goods exchanged on the market have proven to be convertible into one another. However, this does not mean that the parity is already implied in the existence of the exchanged goods.

Assume that Paul exchanges eight hours of his work against one ounce of gold. *After* the exchange has taken place, one can say that Paul's work has been converted into gold or that gold has been converted into Paul's work. Yet the existence of one ounce of gold does not imply that one will receive eight hours of Paul's work for it. Nor does Paul's capacity to work stem from the fact that it can possibly be exchanged against one ounce of gold. The existence of the gold and the existence of Paul's capacity to work are independent from each other. Their exchange rate is not implied in their mere existence.

It is different with money substitutes. They can only come into being as a claim, a part of a contract, that fixes their exchange rate to money. They are signs, expressions for the disposition of a certain quantity of money. When they are exchanged against money they are redeemed. Redeemability is the original meaning of the term convertibility. A document that is convertible in this sense can never have a value different from the object that it gives a claim to. A convertible currency—money substitutes in the form of bank notes—can neither be a money nor a standard.[6] Only irredeemable notes are money—that is, fiat money. They are valued separately because they can be used independently from other goods.

Banknotes and demand deposits are money in only one case: if they do not represent claims. Obviously such a situation cannot come about unless the redemption promise is broken. Breaking a contract amounts to an expropriation of the partner in exchange. That our present money consists of irredeemable banknotes and demand deposits—of central banks—is the result of government-initiated expropriations of money that characterize modern history.[7] Banknotes can only be government (fiat) money because no other agent in a modern state can break contracts on such a wide scale without fear of punishment.

In a system of free banking—whether on a fractional or 100-percent-reserve basis—the demand deposits and banknotes of the competing banks are *substitutes*. They represent a convenient means of documenting claims on money. In exchanging these tickets, one exchanges ultimately (presently existing) money of which they are considered to be representative. Under a gold standard, the exchange of banknotes signifies the exchange of weights of gold. Tickets and other signs are useful because they are not as heavy or voluminous as the goods that are the real objects of the exchange.

Would there be Money Substitutes on a 100 Percent Reserve Basis?

Under a 100 percent gold standard all money substitutes are entirely covered by gold. For each checking account and for each banknote held by the public, the designated amount of gold lies in the vaults of some bank.[8] The banks do not lend this gold to other market participants. They hold it and permit the owner to use some substitutes for his gold that facilitate his market exchanges.

In dealing with demand deposits and notes, banks do not act as financial intermediaries but as warehouses. Financial intermediation, then, can only be provided if and insofar as market participants temporarily *renounce* a claim to the disposition of their money and give it into the disposition of their banks. This is the meaning of the term credit. Under 100 percent reserve banking, credit given by money owners is the necessary condition of financial intermediation. Only if a gold owner has lent his gold to his bank can the bank, in turn, lend this gold to other market participants. Banks are thus engaged in two completely distinct businesses. On the one hand, there is the warehouse business with money substitutes; on the other hand, there is the credit business with money that has been given for their exclusive disposition. There is no reason to assume that these two businesses must always be performed by the same company. Specialization can lead to exclusive gold warehouses and exclusive financial intermediaries.[9]

The money owners profit from the use of banknotes and checking accounts. They do not have to charge themselves with the inconveniences that go hand-in-hand with the use of relatively voluminous and heavy metallic money. In the case of checking accounts they can also avoid the risks of keeping their money at their homes, for no check is valid without their signature.

The holders of demand deposits, in one way or another, have to pay for these services. Their bank will have to charge them with the full costs of security provisions, and of the factors of production the bank has to buy in order to deal with depositors. Otherwise, either the bank's profits would be reduced, or it would have to charge the costs to its financial intermediation business. In the latter case, the bank would become less attractive in comparison to its competitors. It would either have to charge higher interest rates for the money it lends

or pay lower interest rates on the money it borrows.

One hundred percent reserve banking differs from banking as we know it from our daily transactions because interest could no longer be paid *on* demand deposits, but a fee would have to be paid *for* them. It is therefore very probable that, should such a system be introduced, fewer people than today would like to hold their money with the banks and use money substitutes instead. One cannot say that no money owner would accept such a deal. Questions of this kind can only be answered empirically, that is, not before banks and their customers actually deal with such a situation. If there is at least one customer to whom using money substitutes is more important than the fee due, then there will be money substitutes on a 100 percent reserve basis.

Warehouses for money would not be more unusual than warehouses for other commodities. Considering the conveniences linked to the use of money substitutes, there are good reasons to believe that the latter will find employment especially in the performance of big payments. Yet all other transactions will largely be dominated by specie. Thus, under 100 percent reserve banking, gold would certainly not be outcompeted by its substitutes. It would always stay in circulation.[10] However, in a big and growing market, the inconveniences linked to the use of relatively heavy and voluminous gold (and especially silver) money would be progressively reduced. The more transactions are effected on the market, the more purchasing power would accrue to a given quantity of gold.[11]

The Consequences of Individual Failure Under 100 Percent Reserve Banking

Under 100 percent reserve banking all banks can operate independently of one another. The illiquidity of one bank never implies the illiquidity of the others. If one bank is becoming illiquid, it is forced to retire immediately all the money it has lent to other market participants (and, hence, to other banks). However, this will never lead to the illiquidity of those borrowers who have not engaged themselves in the transformation of maturity. Illiquidity will be limited to those borrowers who had put the borrowed money into employments that are more lengthy than the credit term and who now are unable to meet their obligations.

At all times and in all places there will be market participants whose speculations prove to be erroneous and who

fail to fulfill their contracts. Such failure always has negative repercussions on their business partners and regularly leads to the failure of some of them, too. But so long as error is limited to only a few market participants, it cannot have, under 100 percent reserve banking, repercussions on the whole economy. Ruins will then always impede only a very limited group of enterprises. There will always be a problem concerning the immediate business environment of the errant. No central bank is needed to limit their repercussions further.

Nobody has ever raised the objection that a 100 percent reserve system would lead to wide-spread business failure. Nobody has ever been able to prove that this system cannot endure, that it must inevitably lead to its own destruction. All of its critics have pointed to some alleged shortcomings of 100 percent reserve banking for which they propose fractional reserves as an antidote. In the next section the question of such "shortcomings" will be examined.

Critics of 100 Percent Reserve Banking

The Alleged Costs of 100 Percent Reserve Banking

The most common objection against a full coverage of money substitutes is that the system would be too costly. The money in the vaults of the banks is lying idle. It could be better used for other purposes, for example lending it to someone in need of a credit. This idea is entirely wrong. The confusion that constantly arises about this issue is related to the concept of cost itself. Costs are always the costs of an action that an individual confronts. They consist of all the desirable effects that, in the eyes of the actor, cannot be brought about because he has preferred to aim at some other ends. Costs are the expected forgone utility.

The concept of cost has no meaning whatever apart from choice. It cannot be understood if only one action is considered apart from two alternative actions. Every actor is always confronted with *some* costs. The use of money is no exception. From the point of view of a money user, it is obvious that holding money, whether in cash or in form of a bank account, is costly. Indeed, he could employ it in buying some useful commodity or service. Accordingly, it is also costly for the bank to keep large stocks of money. There are always some people ready to pay at least *some* interest rate on additional funds.

However, does the mere fact that an action is costly represent a shortcoming of this action? Does the mere existence of costs represent a shortcoming of the use of money? Clearly, the answer is no. Costs are the forgone utility of an action that is not carried out because another action has been preferred. Hence, so long as a person has to choose from among the specified ends the chosen action must be costly. And so must be the use of all other means that could also be used in another way. We can employ no commodity without having it at our discretion, namely, without holding it. Therefore holding it must be costly in one respect or another. There are always costs with the *holding* of money because its *use* implies holding it.

It seems as if at least some of the free bankers agree with this argument. They concede the fact "that the use of money carries with it certain social costs (forgone benefits of barter) does not compel one to conclude that its costs outweigh its benefits."[12] Indeed, the very use of money *implies* that for its user the benefits outweigh the costs. Money is always used in spite of its costs. However, the free bankers fail to see what this implies about 100 percent reserve. They continue to adhere to the spurious distinction between money hoards and money in circulation. In their eyes, there are people who do not want to hold money but only want to use it in market exchanges. Where no money is held, they suggest, there can be no costs. This reasoning is fallacious. It is impossible "to receive money in exchange for other goods and services" without having the "desire to hold money balances."[13] The use of money must always be costly.

True, say some economists, the mere fact that costs are inextricably linked to the employment of all non-specific means cannot reasonably be considered as a disadvantage. But does this compel us to satisfy ourselves with the present level of costs? All great inventions have this in common that they reduce the costs of action. Why, then, should we not seek for such cost reductions in the realm of money?

Look, for example, at cars parked idly in the streets while their users are at work. They just use their cars to drive from their homes to work in the morning and in the evening they drive them back home again. Many more services could be rendered by these cars if their owners would allow other people to use them during their worktime. The same thing holds true for money. Instead of lying idly in the vaults of the banks, it could be usefully employed by other people in the meantime. Thus, a

certain quantity of gold could serve several bank customers at the same time. This is the nature of fractional reserve banking.

We do not have to discuss the question if whether cars can render *additional* services. For the sake of the argument, we might admit that. Let us suppose that parked cars could render additional services when they are used—with or without the consent of their owners—by other people. What is at stake is the question of whether the same holds true for money. It is this question, however, that we have to answer in the negative. For the services that stem from the use of a certain quantity of money depend on money prices, and money prices depend on the use of the existing quantity of money. It is by the use of idle money from demand deposits that money prices will unavoidably be enhanced. Thus, not only the owners of the demand deposits that were lent out but *all* owners of money, be it in the form of cash or in the form of money substitutes, will find the purchasing power of their money balances reduced. The use of idle money hoards is paid by the owners of these hoards and all other money owners. No other outcome is conceivable because the mere intensification of the use of money does not imply the intensification of the production of goods. The use of money and of its substitutes is always costly. If it is not the holder who is charged with these costs it must be someone else.

It is true that all new technical devices to economize the use of money have resulted in a tendency to higher money prices. The same will inevitably hold true for all future improvements of this kind and thus they have the same effect as a further reduction of the reserve ratio of money substitutes. But does this prove that there is no other difference between them which is crucial? Does it not simply represent another proof of the virtual irrelevance of the money price level?

There is no need to enter into the discussion about the importance of money prices. We rather have to emphasize the difference between two origins of a more intense use of money. One is entrepreneurial innovation and the other is the reduction of the reserve ratio. The great innovations of banking history such as banknotes, checking accounts, clearing houses, and credit cards have brought advantages for all market participants. They economized factors of production that the banks formerly had employed in the service of their customers. Less money had to be spent in the production of these banking services so more could be spent for other market transactions. The same effect was caused by all innovations of non-bankers permitting them to

keep smaller money balances. New techniques for business accountancy, for the planning of market transactions, and for business forecasts fall in this category.

On the other hand, a smaller reserve fraction merely means inflation, viz., an extension of the quantity of money in the larger sense. Yet, as no factor of employment has been reduced, no additional production can result from it. There can be no doubt that the first mentioned innovations are not inflationary, viz., increase the quantity of money in the larger sense. They lead to a more intense use of the existing quantity of money or, in other terms, enhance the velocity of circulation. This is what causes an increase of money prices on the market. The profits derived from productive innovations are a reward for an achievement that is useful for all market participants. By contrast, profits derived from inflationary reductions of the reserve fraction simply represent fraud. No use of a factor of production has been reduced. The banker gains something which is taken from other people.

Financial Intermediation Under 100 Percent Reserve Banking

Implicit in all arguments against banking on a 100 percent gold standard is the conviction that this system would gravely impede financial intermediation. In the judgment of moderate free bankers, such as Larry Sechrest,

> First, with 100 percent reserves, banks cannot make loans from their deposits. Every dollar deposited must be held, ready to be redeemed, at all times. This severely restricts the available credit in the society. One could make a very plausible argument that much of the real economic growth that has occurred would have been impossible in a world of 100 percent reserve banking. Furthermore, banks resent such an imposition.[14]

This expression fatally recalls the inflationist real-bills doctrine. Therefore, some free bankers advance a more radical argument. They say that 100 percent reserve banking makes financial intermediation impossible. This is, however, untrue; even if credit were *restricted* by 100 percent reserve banking (which is not the case) there would still be credit in this system. To be sure there would be no intermediation of demand deposits

because the disposition of them would entirely be reserved to the depositors. Yet even in a system of fractional reserve banking the intermediation of demand deposits represents but a part of the whole intermediation business. By far the biggest part of the money lent by the banks has been temporarily given into their *exclusive* disposition. Therefore, the pretension that under 100 percent reserves "banks would be unable to lend"[15] is untenable. One does not have to quarrel about whether the word credit, or the expression "true financial intermediation,"[16] should be reserved for lending operations on the basis of demand deposits (fiduciary money issues). The only relevant issue is whether there is still financial intermediation under 100 percent reserve banking. This cannot be contested.

The Alleged Dangers of Money Shortages and of Changes of the Price Level

The case for fractional reserve banking is entirely based on the age-old equivalence idea. According to this idea each commodity *corresponds* to some quantity of money. The exchange of a bigger quantity of goods on the market is only possible if the quantity of money increases, too. Devastating results could result from a "fear of currency shortage."[17] The prospect of a rigidly limited quantity of money, say the free bankers, could drive the market participants to enhance their money holdings. This would precipitate a real money shortage even if there had been none in the beginning. It is obvious that this argument not only applies to gold but to all other goods as well. The quantities of shoes, bread, and bottles of milk are no less limited than the quantity of money. Nevertheless there are no general fears of shoe shortages. Neither is it necessary to invent special devices to prevent them.

However, this is not the whole of the picture painted by the free bankers. Fractional reserve banking is needed because metallic money cannot increase in a degree sufficient to permit all market exchanges. It is needed to provide "transfer credit."[18]

Transfer credit, they say, is necessary to prevent disruptive consequences that otherwise would follow. Principally, they say, each increase in the demand for money would cause unfavorable money shortages for it withdraws money from circulation:

> Consider what happens when the supply of money fails to increase in response to an increase in

> demand for money on the part of wage earners. The wage earners attempt to increase their money balances by reducing their purchases of consumer products, but there is no offsetting increase in demand due to increased, bank-financed expenditures. Therefore, the reduction in demand leads to an accumulation of goods inventories. Businesses' nominal revenues become deficient relative to outlays for factors of production—the difference representing the money that wage earners have withdrawn from circulation. Since each entrepreneur notices a deficiency of his own revenues only, without perceiving it as a mere prelude to a general fall in prices *including factor prices*, he views the falling off of demand for his product as symbolizing (at least in part) a lasting decline in the profitability of his particular line of business. If all entrepreneurs reduce their output, the result is a general downturn, which ends only once a general fall in prices raises the real supply of money to its desired level.
>
> As was said previously, such a crisis can occur only if banks fail to respond adequately to a general increase in the demand for inside money.[19]

This reasoning is central for the doctrine of fractional reserve banking. There are several fallacies in it. Even if it *were* correct, there would be no way to explain why prices can ever fall. Yet this is what the free bankers consider as the long-run outcome of a growing economy.

Most importantly, the above statement is but half of the story. The other half is the story of wages.[20] If an entrepreneur faces reduced demand for his products, he sooner or later has to pay lower wage rates. Now, if a worker accepts this, the output of this enterprise is not reduced. It remains profitable and can stay in business. If a worker does not accept the lower wage rate, he will sooner or later have to look for another employment, thus reducing wage rates elsewhere. Other businesses that hitherto were submarginal become profitable. In either case there can be no general reduction of output. Wage earners will have lower nominal incomes.

Yet, all other prices are lower, too. Thus their real incomes have not declined. Even if all wage earners decided suddenly to

bury their banknotes in pillows or burn them, there would be no need and no possibility to adequately increase the supply of banknotes. To be sure, there would be some disruptive elements in this scenario. Yet, it is not the falling prices that are disruptive, but the general folly that drives *all* market participants to burn their banknotes. Falling prices are nothing but a symptom of an adjustment taking place. Preventing prices from falling amounts to curing the symptom and leaving the disease untouched. General output or aggregate demand can neither be conserved nor enhanced by increasing the money supply. The free bankers have not yet learned the lesson of Say's Law.

Some of the free bankers have filled volumes with studies on the history of banking and, still, are blind to the most important issues of money and banking. With the opponents of gold, they share the conviction that money is only optimal if it is flexibly supplied according to the changing scope of its employment or of needs. There can be no greater fallacy in monetary theory. No issue is more fundamental. Therefore the insight of classical economics has to be repeated again: *The quantity of money is irrelevant for the benefits derived from its use, in the long run and in the short run*. There is no need and no possibility to adjust it according to its changing employment. There is no need because the adjustment can be achieved by a change of prices and particularly a change in wages. But most importantly, there is *no possibility* of an "adjustment" of the quantity of money. Even if one could succeed in replacing the money exactly there where it is "withheld" (which would be close to a miracle) one would need an angel to inform each market participant about the structure of prices that is now likely to be created.[21]

There is no meaningful way to define a demand for money that could exceed the supply of money (the existing money stock). An ever increasing quantity of commodities and services can be sold on the market with one and the same supply of money.[22] The argument can be reduced to the conviction that "if prices go up we need more money to sell all the goods." However, the mere fact that one price or even all prices did already go up with the use of *unchanged* money stock proves that the latter does not have to be increased.

Every existing good can be exchanged on the market. The crucial question is whether the selling prices render its production profitable or not. Unprofitable investments prevent more urgent productions. This is why they are unprofitable. If

transfer credit is given to make them profitable, the satisfaction of more urgent wants is artificially prevented.

On Some Alleged Advantages of Fractional Reserve Banking

Is Fractional Reserve Banking the Necessary Outcome of an Unhampered Market?

Fractional reserve banking has been represented as the necessary outcome of an unhampered market.[23] If this were true it would be a strong support for the claims of the free bankers. For whatever was undertaken by any other agent to establish a different system, there would always prevail a tendency toward fractional reserve banking.

It is most convenient to clarify the nature of this argument because some of its advocates believe it to be "causal-genetic," an expression which Schumpeter used to distinguish Austrian economics from other approaches. An abstract summary of it could run like this: First one points at a problem of action, for example, the problem that "double coincidence" in a barter economy is very rare so that most people willing to sell the goods which they do not need personally would not be able to exchange on the market. Then one shows that this problem can be solved by a certain behavior that was until now unknown.

In our example this would be the invention of indirect exchange: using a medium of exchange, people are no longer dependent on the improbable case of "double coincidence." With this solution of the old problem, however, new problems are arising by which no one has been previously confronted. One of these new problems is linked to economic calculation. Economic calculation cannot be successfully executed without the use of a medium of exchange. The calculated planning of action reaches as far as the price system that is constituted by the use of the particular medium of exchange.

Comparing the prices expressed in a medium of exchange that will probably be realized on the market permits us to evaluate the probable success of even the most complex projects with a hitherto unachievable precision. On the other hand, one of the problems that is linked to economic calculation is the homogeneity of the medium of exchange. If the different items of the total quantity of a medium of exchange are not of a sufficiently homogeneous quality, no calculation can be

successfully put into action. A new solution is required to solve the new problem. As should be clear by now, whatever solution will be applied, it will be at the base of other problems that need other solutions, and so forth.

This essay is not concerned with questions of method. Yet, fractional reserve banking is recommended because it allegedly represents the necessary outcome of the operation of the unhampered market which in turn can allegedly be deduced by the above method. The latter, therefore, needs some consideration.

It is very important to realize that in economics there are two types of arguments of which one could say that they feature evolutions. One argument is purely logical. This is, for example, the case for the necessary evolution that we call the business cycle.[24] A business cycle takes place after the injection of additional quantities of money through the credit system. Whatever the market participants will do in such a situation, they cannot prevent the additional quantity of money from exercising an additional effect on the price structure. After the injection of new money, many projects seem to be (are calculated to be) profitable that did not seem so before. Projects are started which would not have been started without the injection of new money. Indeed, saying that additional quantities are *injected* into the market through the credit system means *that* they are borrowed. Then the price (the interest rate) must be lower than it would otherwise have been. As this interest rate *cannot* last but *must* go up it represents an *additional* source of error for market participants.[25]

The alleged deduction in the theory of fractional reserve banking is not of this kind. Essentially it is a historical account, even if it does not feature *our* history. The necessity of the evolution it describes is only an empirical, that is *ex post*, necessity. Of course, we know that in all types of barter societies, the problem of double coincidence exists. We also know that man has discovered indirect exchange. Yet, this invention, as every other invention as well, was in no way inevitable. In all places and at all times action is confronted with problems. Only *ex post* are we often capable of saying if and in how far a certain behavior represents a solution and to what. This is what can be achieved with causal-genetic approaches to the evolution of monetary institutions. And this is *all* they can achieve. They are a kind of very abstract history of monetary institutions, a history of what would have happened if government had not intervened in

a misconceived manner.

Now, let us disregard the question of whether it is appropriate or not in this context to neglect government interventions. The only question we have to face is whether there are any problems of action that, *by their pure existence*, imply that a certain solution—indirect exchange, clearing houses, fractional reserve banking, etc.—be invented. Does an empty refrigerator imply that it will be filled? Did gravitation create the relativity-theory to let man fly to the moon? Did the weakness of our eyes invent X-rays to see through a patient's skin? Did idle gold hoards lead to fractional reserve banking? If this were the case, the causal-genetic process would be a sound line of reasoning. Yet, it is not the case. It is undisputed that all the institutions that are allegedly *deduced* from problems represent, in some manner at least, solutions to existing problems. However, this is no proof that other outcomes would not be possible. Fractional reserve banking could be but a part of all the possible solutions. To state a problem and then present one (now known) solution is no proof that the problem already *meant* this solution. If this implication cannot be demonstrated, the argument can never be general, that is, valid for the markets of all times and places. It then refers only to one particular outcome, not to all the outcomes that the unhampered market must take.

The approach championed by the free bankers contains no argument of the kind required to prove that an unhampered market leads to fractional reserve banking. It cannot be claimed in defense of the case for fractional reserves.

Does Fractional Reserve Banking Lead to Monetary Equilibrium?

Free bankers Kevin Dowd and Lawrence White say they do not defend the real-bills doctrine.[26] Even so, they have recognized the proximity between their tenets and this fallacious doctrine. Yet all their efforts to distinguish between the two have proved to be futile. There is no difference between a money substitute issued to give a real-bill credit and a money substitute issued to give transfer credit.[27] Both are credits out of thin air, that is, no credits at all. Contrary to their pretensions, the free bankers are nothing but the modern advocates of the real-bills doctrine.

There is but one quite modern feature in their argument. It is the conviction that only fractional reserve banking leads to monetary equilibrium. The latter is supposed to be the state of

affairs that prevails when "there is neither an excess demand for money nor an excess supply of it at the existing level of prices."[28] According to Selgin, the lending process in a fractional-reserve banking system equilibrates money supply and demand because:

> Whenever a bank expands its liabilities in the process of making new loans and investments, it is the holders of the liabilities who are the ultimate lenders of credit, and what they lend are the real resources they could acquire if, instead of holding money, they spent it. When the expansion or contraction of bank liabilities proceeds in such a way as to be at all times in agreement with changing demands for inside money, the quantity of real capital funds supplied to borrowers by the banks is equal to the quantity voluntarily offered to the banks by the public . . . Thus a direct connection exists between the conditions for equilibrium in the market for balances of inside money and those for equilibrium in the market for loanable funds. An increase in the demand for money warrants an increase in bank loans and investment. A decrease in the demand for money warrants a reduction in bank loans and investments. [29]

Therefore, fractional reserve banking avoids excess demand and supply of money because the issues of the banks are virtually irrelevant. It is only their customers who choose the appropriate money balances and thus the total quantity of money in use. Balances are held in consideration of the purchasing power of money, that is, the money prices prevailing on the market. "People who find themselves holding excess notes or deposits will get rid of them largely by depositing them in checking or savings accounts at their own bank, or by spending them away to persons who will deposit them."[30] Now, say the free bankers, money prices are exclusively determined by the value of outside money, for example the value of gold. *Money substitutes play no role in the formation of money prices*. The supply of bank money has no influence on the purchasing power of money. Money substitutes must necessarily have the same value as money itself because they are convertible into money. In the eyes of the free bankers, restrictions on the issues of banks would in no manner

prevent changes of the price level. This is because the latter exclusively depends on the industrial demand for gold. The following gives a sample of formulations of this anchor theory[31]:

> The public's demand to hold the demand liabilities (notes or demand deposits) of any particular bank is a definitely limited magnitude in nominal as well as real terms given that the purchasing power of notes and demand deposits is fixed by their redeemability for specie.[32]

> In the limit, with clearinghouse reserves of base money economized to zero and hand-to-hand currency entirely bank-issued, so that neither the banking-system nor the public holds any base money, the purchasing power of base money would depend entirely on nonmonetary demand for the substance comprising base money. Under a commodity standard the value of the unit of account (a standard unit of the base money commodity) would still be determinate. Under a fiat standard, the value of the unit of account would go to zero (because there is no nonmonetary demand for fiat money), placing the system's viability in doubt.[33]
>
> . . . a modern competitive theory of money distinguishes between currency [taken as synonymous with high-powered money] and bank money. The stock of currency at any moment is fixed. That fixed stock of currency together with the demand for currency determines its value. Being convertible into currency, bank money or deposits must have the same value as currency. And given a price level determined by the supply of and the demand for currency, the banking system, without affecting the price level, supplies whatever quantity of deposits the public wants to hold.[34]

This is sheer fallacy. Money prices on the market are the prices paid in form of money *and* in form of money substitutes. It is this *total* sum (the money supply in the larger sense[35]) which determines the height of money prices. Yet, fractional reserve banking means that there are fiduciary issues of money

substitutes. Then the money supply in the larger sense must be bigger than the money supply in the narrower sense (of money itself). In this case, money prices must be higher than the prices that could be formed with the use of money only.

Suppose I get an additional fiduciary banknote of one ounce of silver sterling from my banker. This banknote permits me to satisfy wants that hitherto were not sufficiently important to be considered (they were submarginal). If I pay for a meal in a restaurant with this banknote then, without any doubt, I have affected market prices. In fact, by my very purchase I have formed market prices. These prices would have never come into being without the additional issue of a banknote. Selling the meal to other persons would have required a price reduction to attract submarginal consumers. Thus, without the issue of the additional banknote, the money price of a meal would necessarily have been lower. True, the free bankers might say, but if you only *hold* your money, then no new prices are formed on the market. You then have exercised no influence on market prices. But money is always demanded to be spent. Even if an additional fiduciary money substitute is spent only one time it already has raised money prices on the market.

It is the principal shortcoming of the free bankers not to understand the principles of money-price formation.[36] They believe that changes in the purchasing power of money are a matter of the long run.[37] This is an error. Their entire conception of *how* those changes come about is futile. On grounds of their doctrine, one cannot even conceive of how changes in the purchasing power of money are *ever* brought about. However, the formation of market prices is definitely not a matter of the long run. Money prices are formed by the use of the supply of money in the larger sense. The larger this supply, the higher are the money prices. It is therefore impossible that relative money prices not be distorted or affected by a change in supply of fiduciary issues. *Each* modification of the supply of money in the larger sense affects money prices *with no delay of time*. Once this is conceded, the anchor theory collapses. The decisive influence that money has on its substitutes is by its quantity. The quantity of money determines the quantity of money substitutes that can be issued. This money supply in the larger sense, then, enters into the formation of money prices.

It is characteristic of the entire free-banking program to confuse this issue. They adhere to some mythical idea of price formation through convertibility.[38] And they tend to consider

quantitative limitations on action as accidents to which the attainment of monetary equilibrium is unfortunately exposed. However, with the myth of the anchor falls the myth of monetary equilibrium and its complements, excess demand and excess supply of money. It is untenable that "short-run corrections in the real money supply require changes in the nominal quantity of money."[39] A change of the (nominal) supply of money can never be warranted "because it maintains monetary equilibrium."[40]

One cannot avoid this conclusion, as Stephen Horwitz attempts to do, by merely redefining terms. Horwitz defines a neutral money as not distorting "the determination of relative prices when there are changes in its supply."[41] It would be as meaningful to define the perfect human being as "someone whose mind is not limited by the category of causality."

Definitions are necessary. What is at stake, however, is not our capacity to *invent* definitions but whether the definition in question is useful or not. No definition can be useful that contradicts itself. Whatever names we choose to describe it, a "money that will not distort the determination of relative prices when there are changes in its supply" is a contradiction. Calling this impossibility *neutral money* means nothing else than that we give a name to something that we cannot even conceive of. Discussing the effects of neutral money is therefore as meaningful as the dissemination of accountancy methods in a socialist commonwealth.

It is frequently objected that the relevant quantity of money is indeterminate. From this, it is inferred that the formation of money prices cannot rely as heavily on the money supply as it has been pointed out above. What does this objection amount to? It amounts to saying that existing stocks are indeterminate. Of course this is not true. The supply of a present good is always limited even if there is no one able to say exactly how much of this good exists. Otherwise it would not be a good. Thus, the stock of a medium of exchange is never indeterminate in any relevant manner. Money and its substitutes are no exception. Confusion about the money supply in the larger sense stems from conceptual confusion.[42]

Does Fractional Reserve Banking Favor Investment?

The spurious doctrine of the equivalence between money and real goods is not only used as a critique of 100 percent reserve

banking. It also underlies attempts to prove the expediency of fractional reserves. Because the ultimate end of indirect exchange is always to buy some non-monetary goods, the use of money cannot have any value independent from the value of the latter.

Thus, say the advocates of fractional reserve banking, money is an entitlement to real goods. It *represents* the real funds for which it is intended to be exchanged. But, unfortunately, there need not always be equivalence of the amount of the loanable funds and the money in circulation. The latter may prove insufficient to buy all real savings. *Distortions* would be inevitable when the *real loanable funds* could not be borrowed because there is no corresponding circulating money to buy them. This is where fractional reserve banks step in. In the form of money substitutes they create the corresponding money that otherwise would be lacking. According to Horwitz:

> Savers supply real loanable funds based on their endowments and intertemporal preferences. Banks serve as intermediaries to redirect savings to investors via money creation. Depositors give banks custody of their funds, and banks create loans based on these deposits. The creation (supply) of money corresponds to a supply of funds for investment use by firms.[43]

This is the essence of the free bankers' creed. In their eyes, only part of the whole money supply is relevant for the market exchanges. Only the part in circulation constitutes a demand for real goods and services. The other part is money held—the proper demand for money. The owners of money held are lenders: "what they lend are the real resources they could acquire if, instead of holding money, they spent it."[44] Because the proportions between money in circulation and money held can change there can be a difference between savings and investment. Suppose someone increases his money balance. Holding more money substitutes, he renounces his share of the goods to which the money entitles him. Now the money he holds no longer *circulates* on the market. He saves but nobody invests. What is more important, nobody *can* invest because the necessary medium of exchange has been withdrawn from the market. Accumulation of unsold goods inventories would be the inevitable consequence were it not for the beneficial intervention of fractional reserve banks. They create new money in circulation

that will buy the idle goods inventories. Savings and investment are again in accord with each other.

It is not necessary to point out all the fallacies of the equivalence idea.[45] We only have to examine its basic tenet regarding investment. The free bankers think that there can be a difference between savings and investment. Yet there is no such difference. Savings and investment are always identical. They are merely two aspects of the same action, just as buying and selling are two aspects of the same market exchange. One cannot save without investing, nor is it possible to invest without saving at the same time. Thus, suppose that Jones sells a car against 50 ounces of gold that he intends to hold until his retirement age. Jones has invested in gold. Yet this means nothing else than that his savings are in gold, too. It is immaterial whether Jones keeps his gold in some worn socks or with his banker or someone else. No additional action of any bank is required to make savings and investment equal.

Now, suppose that Jones keeps his gold with a bank on a demand deposit. His banker thinks—because he has been instructed by some clever free banker—that in lending out these idle funds through the issue of a money substitute, he finances a corresponding investment. He gives two ounces to Smith who, in turn, buys a washing machine. By giving this idle money to Smith, does Jones create Smith's washing machine? Does he create gold? Does he create just one present good? Does he create something else than a demand deposit? If the answer is no —and there can be no doubt about that—how is he able to finance an additional investment project, that is, supply it with some present goods? He takes Jones's money to do that. Thus, *he not only takes Jones's savings but also his investment*. Such actions are commonly called robbery.

Our enlightened banker has financed Smith's investment project by robbing Jones. He has not achieved an economic miracle, at least no miracle that no other robber would be capable of. Of course, in our enlightened age, neither Smith nor Jones are aware of the nature of the blessings of fractional reserve banking. Smith eats the cake of Jones and of the other money owners while the latter think that they still have it. For it is not true that by "holding a bank liability, either deposits or currency under free banking, the possessor refrains from redeeming it for outside money."[46] Holders of demand liabilities are definitely *not* "granters of credit just as are holders of time liabilities."[47] The possessor believes that he can have

both, benefit from the use of a money substitute *and* redemption whenever he wants. This is exactly why money substitutes under fractional reserve banking are so interesting to him. The banker (and some economists) may believe that there is just "a difference of degree and not a difference of substance" between credits given on a base of demand deposits and credits on a base of other credits. But there can be no doubt that not only *is* there a difference of substance but that this difference constitutes, in Murray N. Rothbard's terms, "the nub of the problem" of fractional reserve banking:

> a claim—and banknotes or deposits are claims to money—does not involve the creditor's relinquishing any of the present good. On the contrary, the noteholder or depositholder still retains his money (the present good) because he has a claim to it, a warehouse receipt, which he can redeem at any time he desires. This is the nub of the problem, and this is why fractional reserve banking creates new money while other credit agencies do not—for warehouse receipts or claims to money function on the market as equivalent to standard money itself.[48]

If issuing fiduciary money increased "the supply of loanable funds and spurs further economic growth"[49] there would be, to be sure, no possibility to dispute some beneficial effects of fractional reserve banking. Then the need to redeem money substitutes must appear as an atavistic obstacle for banking. And so would the limitation of money itself. But if one can really imagine "politicians leveraging the Fed into generating short-term output increases to pump up the economy at election time,"[50] why do we not encourage our politicians to do that *all* the time? Why do we abstain from continually enforcing "temporary deviations of real output from its natural rate?"[51]

The answer is: because it is, *even in the short run*, impossible to generate output increases by printing money. Production capacities for future *and* present goods are always limited. If I convert my existing production facilities to the production of more present quantities, then quantities produced in the future will be reduced. If this were my intention then I would successfully increase output. I would err, by contrast, if I believed that I could have more quantities today without paying in the form of less quantities tomorrow. I cannot feel richer

having many goods today when I know that I shall starve tomorrow. When I am convinced that it will rain tomorrow I will repair the roof of my house. I do not think a second of taking too long a sunbath to complete the repair today. The additional hour of sunbathing is, in any practically relevant sense, not more than the repair of the roof of my house. Forcing me to behave in another way, namely, to take a longer sunbath today, can in no conceivable manner be more valuable to me.

In quite the same way, it is impossible to provide more loanable funds through fractional reserve banking. Gold held in demand deposits must be considered as savings. This, however, does not mean that its holders renounce their disposition of it. Fractional reserve banks may be necessary—as is central banking, too—because it "would make certain lending opportunities profitable that would not otherwise be worthwhile."[52] So is a robber necessary to make loans to those who would not otherwise get them. No bank can procure more loanable funds than the public is willing to place at its disposal. The only thing they can do is to *deceive* their customers about the quantities of factors of production that are available.

Printing banknotes and creating new deposit accounts is not the cause of cars assembled, bridges constructed and children educated. Everyone inclined to ignore this will sooner or later be told better by the course of events. A bank always operates as an intermediary of *already existing* funds. It does not create them. Issuing additional quantities of fiduciary banknotes and demand deposits does not increase the quantity of the goods that can be bought with the new fiduciary money. Hence, inflation cannot represent an increase in output. Only if the receivers of higher nominal incomes *believe* that they can have both more goods today *and* more goods tomorrow is the increased quantity of present goods more in their eyes.

Yet this is a blatant error that only becomes apparent at a later stage of the inflation-induced evolution. Those who believed in the blessings of inflation or who ignored the latter altogether will find that the longer sunbaths of yesterday have to be paid for by a wet dining room today. Inflation-created output increases are a contradiction in terms. Not only do they fail to encourage investment, they positively impede it because they cannot but lead to error, that is, to the destruction of investment. There is no difference between fractional reserve banking and government intervention in financial markets. Both "*divert* savings from more to less productive channels."[53]

The free bankers are inspired by a spurious problem. It is therefore that their doctrines are as unsatisfying as those of their predecessors. During almost the whole of our century, economists were in search of the causes and consequences of deviations between savings and investment. Nearly all of them overlooked the disposition issue. (Probably they tried to avoid it because it would have led them too near to the concept of ownership; which was deemed unscientific.) So they tried to explain the recurrent crises of capitalism with the wrong tool. Business cycles are a matter of systematic error. Yet, this error refers to the disposition of goods, not to differences between savings and investment. Their unawareness of the disposition issue leads the free bankers to misconceive the argument of Rothbard in support of 100 percent reserve banking. His claim that fractional reserve banking is fraudulent[54] is in their eyes "more jurisprudential than economic."[55] They are certainly right that "nothing in a free banking system prevents an individual who desires 100 percent reserve banking from explicitly contracting for it."[56] Yet nothing in the world prevents people from being foolish. Rothbard's view that banknotes are the legal equivalent of warehouse receipts is *not* "based on what he thinks legal practice *ought* to be."[57] Rather it is the other way round. Legal practice ought to acknowledge that banknotes *are* substitutes for money and that it is impossible that two persons dispose of the same good at the same time.

Does Fractional Reserve Banking Convey a Superior Kind of Knowledge?

The fundamental economic fallacy of all brands of socialism is the idea that money is not needed for the calculated planning of action. Unfortunately, there is a corresponding fallacy of just the opposite nature, namely, that the use of money provides *something more* than the indispensable instrument of the calculation of action. This conviction is manifest in the naive attempt to create goods by an increase of the quantity of money. It is also apparent in the attempts to attach a special dignity to money because it allegedly conveys a superior kind of knowledge. Recently the conviction that monetary exchange is a social communication process has found an advocate among the free bankers:

> Both language and money are ways of extending

> our perceptual apparatuses beyond the immediate; the difference lies in to what each allows us access. The advantage of a monetarily extended language over language alone (and why the modern socioeconomic order is equally dependent on money, as it is on language, for its emergence and evolution) is that money allows us to utilize not only the articulate knowledge of others but, more important, their knowledge that cannot be put into language.

He then theorizes what kind of information money does convey:

> language and money . . . *constitute* the way in which we express [mental] constructs and preferences. Just as we cannot help but think in terms of the words that language provides us, we cannot help but act in the market in terms of the money prices of what we want to exchange. As difficult as it is to communicate thoughts outside of language, so it is difficult to express market-relevant wants outside of monetary exchange.[58]

There is no doubt that money prices constitute an expression of our preferences. However, this is not the point. The point is that they are but *one* expression of preferences and that the latter are revealed in *any* prices, not only in money prices. Yet, if our preferences are revealed by all market prices then it is impossible to claim a particular ability of money to convey them.

But there are still other, more general flaws in the superior-knowledge theory of money: Money is scarce, language is not. The use of money *implies* social cooperation, the use of language is a unilateral act that does not imply cooperation. The *success* of the use of money is based on a fundamental disagreement about the meaning (more narrowly: the value) of money. As with every market exchange, it presupposes only the knowledge *that* the intended act is profitable (more useful than any other action), not *why* it is so. Market exchange rates convey no knowledge apart from the valuations which made cooperation possible. The use of money permits diverging interpretations of the underlying objective conditions of action. This is of no importance for the success of a market exchange. *Every* use of money, by its mere existence, proves that cooperation is possible even if one partner in the exchange is fundamentally erring. By contrast, the success

of the use of language is based on a sufficiently similar interpretation of special objects (words and other symbols). Without an agreement upon their meaning *no* success would be conceivable. The use of a language is impossible without the tacit conviction that the objects of the discourse are perceived (interpreted) in the same way.

The success of trade and money and its importance for humanity is based on the fact that they do not presuppose any agreement between cooperating individuals about the interpretation of their environment. Money and trade rely upon the extreme opposite foundation, that is, diverging attitudes toward the value of objects. Therefore it is not true that "joint production processes require the communicative agreement that money permits."[59] The division of labor is certainly *facilitated* by language. Yet, language is but a tool to reduce the uncertainty linked to the interpretation of the intention of others; insofar, it resembles not only money but *all* means of action. It is to this wide analogy that Simmel refers in his *Philosophy of Money*. Such an analogy has limits:

> The point of departure for the analogy between money and language is to recognize that both mediate social processes; money is the "medium of exchange" for Menger and many others; language is the "medium of experience" for Gadamer and others in the Continental tradition . . . Language and money do not reveal some preexisting mental constructs or preferences, rather they constitute the way in which we express those constructs and preferences.[60]

Simmel's authority, therefore, cannot be claimed in support of the idea that money is—as language—a means of communication.

The difference between 100 percent and fractional reserve banking is of course one of error and information. Yet fractional reserve banking is far from being superior in this regard. Rather the opposite. Under 100 percent reserve banking the factor use linked to the employment of money substitutes shows itself in the costs incurred by the bank customers. Under fractional reserve banking just the opposite holds true each time additional quantities of fiduciary money are issued. The bank customer receiving an additionally issued banknote or demand deposit at (necessarily) too low a price believes this price to be the costs of

the credit.

In fact, this is not the case; the rest of the costs must be paid by the other money owners in form of lower purchasing power. The customer receiving interest payments for his money deposited in a demand balance believes him receives a free lunch. In fact, they do not do so for their deposit with a bank makes fiduciary issues possible and thus leads to a decrease of the purchasing power of their money. Additionally, they are erring about the quantity of money they can dispose of. However, only in times of liquidity crises do those errors on a wide scale become obvious.[61] Thus it is precisely under a regime of fractional reserves that the market participants are systematically *misinformed* about the quantities of goods they can dispose of. It is also unlikely that, under fractional reserve banking, "reserve holdings would indeed fluctuate to reflect the trust that the public holds in a bank's liabilities and the confidence the bank has in its assets," as Horwitz believes.[62] If this interpretation was common in the market then even bad banks—and *especially* bad banks—would do their utmost to operate on a low reserve ratio.

The breakdown of any system of fractional reserves represents only the cluster of failure that was already implied in the cluster of erroneous assumptions concerning the quantity of disposable goods. Insofar as there are striking parallels to the issue of gold versus fiat money, the latter has traditionally been defended with reference to the smaller resource consumption that it would allegedly imply. Yet, at the end of this century, marked by fiat money regimes all over the world, even the most ardent of its champions admit that this was an illusion.[63]

The Necessary Failure of Fractional Reserve Banking

The Two Sources of Business Failure Implied in Fractional Reserve Banking

The free bankers think that fractional reserve banking can, in principle, last forever. They believe that it does not bear in itself the source of its destruction. They are convinced that its pure existence does not imply its decline. They are wrong on each one of these contentions.

Some critics of fractional reserve banking think that the root of the free bankers' fallacies is that they maintain that the

holding of money constitutes savings. Yet, as it has already been stated above: one cannot save without investing, nor is it possible to invest without saving at the same time. This refers to *all* goods and, thus, to money. The terms savings and investment (or better: savings-investment) refer to *all* actions. From the point of view of the acting person each means which he disposes of—even for the shortest delay of time—is savings-investment. Like the category of means-ends, it is a categorical feature of action. The machines owned by a great industrialist are as much his savings-investment as the coffee cup that I own as a part of my savings-investment. So are cars, refrigerators, dentists' equipment, computers, and the fresh pizza served in a restaurant. And so is the money that one owns, too.[64]

However, these considerations are only preliminary to what economics is all about, that is, the employment of *limited* means or goods. In a situation of unlimited means there could be no question of the success of action. All actions would be successful because of the abundance of means. Action could not be as we know it. Just the contrary is true for goods. Only a limited number, representing a limited range of actions requiring their use can be successfully executed. This number or range is larger when more goods can be employed, and it is smaller when fewer goods can be employed. Yet at each moment it *is* limited. The main problem of acting man consists of the identification or discovery of the most important actions which—under the prevailing limitation of goods—can successfully be carried out. *This problem can only find a solution if and insofar as acting man correctly identifies how many goods are at his disposal*. He must fail if he errs in his appreciation of the amount of goods he can dispose of. If an institutional arrangement implies that the acting persons under its influence err systematically, the arrangement itself can be said to lead to necessary failure. This is exactly the character of fractional reserve banking.

Errors are regrettable but there are no known means to avoid them. Error in business consists of a false appreciation of the future values of consumers. It will occur at all times and in all places, with or without 100 percent reserves in banking. In comparison to the totality of all actions, however, error is but a minor phenomenon. Given sufficient time, man learns how to deal successfully with all objects, be they means or obstacles to his ends. One hundred percent reserve banking is no object that implies particular difficulties for action. Errors, then, cannot be a characteristic feature of its use. It is quite another case with

fractional reserve banking. Fiduciary issue of money substitutes as such is, of course, not the root of business error. There is no link whatever between the coverage of money substitutes and the correctness of anticipation. But in two respects it is always linked with error.

The first respect is that a situation in which reserves are fractional *can only be brought about* by the issue of fiduciary money, that is additional and therefore uncovered money substitutes. The important feature of this bank-created inflation is that it must lower the interest rates charged by the banks. Without lowering the interest rates, they would simply be unable to lend the additional money substitutes. Considering the lower interest rates, more projects are calculated to be profitable and launched. Yet, because the production capacities are limited, this must lead to a "cluster of business error,"[65] that is, to approximately synchronous failures of many market participants.

Dealing with a fractional reserve banking system, market participants are permanently misled. In their calculations more projects appear to be profitable than can be successfully finished. The nature of fractional reserve banking is to cause this kind of failure on a wide scale. One cannot reproach the free bankers because they do not consider the lessons of Austrian business cycle theory. At least some of them do know that the issue of additional quantities of money substitutes leads market participants to make systematic errors. Yet general errors of market participants do not stem from a confusion "between nominal and relative price changes."[66] All prices are nominal. Without a denomination in some unit there would be no means with which to compare them.

The second aspect is contagion. Even the free bankers do not deny that under fractional reserves, the failure of one bank is likely "to trigger systemwide runs, implying large-scale demands to redeem banknotes and deposits for base money" leading to "widespread bank failures, undermining the payments system."[67] Nevertheless they do not believe this to be a devastating critique of their case. They argue that systemic crises in the past have not been a great threat in banking systems. In their eyes it was rather legal restrictions that played a crucial role. They believe that the evolution of an unhampered market would lead to institutions capable of avoiding runs and panics. Let us examine these arguments in turn.

Legal Restrictions and the Exogenous Causes of Bank Failure

Runs on the banking system, it is said, "were precipitated by events exogenous to the banking systems."[68] Now, what is an *exogenous event?* Imagine a blind person walking without orientation on the pavement. What if he falls in a hole and breaks his neck? One could blithely argue that the reason for his accident was exogenous to his being blind. He did not break his neck because he was blind but because some unpredictable circumstances *from outside* disturbed his otherwise brilliant fate.

The futility of this reasoning is obvious. The concrete object that hurts the blind is as immaterial for the issue as the concrete reasons that lead too many market participants to redeem their money substitutes at the same time. It is also immaterial whether the concrete causes for failure are defined as exogenous to the activity in question. The only relevant aspect in this context is whether the activity in question implied already certain problems or not. In the above cases there can be no doubt about this point. To be blind *means* to be exposed to the increased danger of collision. To hold fractional reserves *means* to be exposed to the danger of having to redeem more than one is able to. The free bankers think they have refuted the reality of contagion crises. Yet, they have merely played with words. The contagion or domino effect is not refuted if one *defines* it conveniently. There is no use in building up a straw man called contagion crises and meaning a sudden breakdown of confidence in the banking system that comes out of heaven. There is no such thing as contagion in this sense. It is therefore not very surprising that such contagion never occurred in the past and that it will never be easy to find in practice.

At the bottom of the issue is the relationship between the psychology of the actor and the success of his actions. For economic analysis, the importance of a belief is not its mere existence but the conditions under which it leads to successful action, viz., under which it is right. Crises of confidence and bank runs can be interpreted in two ways. Either one has to suppose that the prevailing conditions justify them, that is, render them successful. Considering fractional reserve banking this is undoubtedly the case. Timely redemption always proves to be successful because it is impossible to satisfy all redemption demands. Or one has to suppose that the beliefs of the market participants are completely erroneous. Why, then, do they err all at the same time and in the same way? Are they guided to similar behavior by a somewhat mysterious herd instinct?

To these questions, the free bankers have provided no

answers. To be sure, everybody necessarily acts according to what he *believes* is right. But it is quite a different question whether the convictions of the actor *are* right, that they too lead to successful action. Does the existence of an individual belief, or confidence as such, imply that it be justified? Is a bank illiquid *because* the depositors believe it to be so? Implicitly, the free bankers answer these questions in the positive. For if contagion crises are "crises of confidence" and contagion effects are "confidence externalities,"[69] one is led to believe that the mere breakdown of confidence in banks leads to a breakdown of payments.

At least under 100 percent reserve banking this is obviously not the case. Here there could be crises of confidence, but there can be no crises of the payments system. This is because the monetary aggregate that is relevant for payments—the money supply in the larger sense, that is, money plus fiduciary issues—could not differ from the supply of money. Its quantity could only vary to the extent that the quantity of money varies. At least in the case of gold this is of no practical importance.

Whether the money at the disposal of the market participants is in the vaults of the banks or under grandmother's pillow is, under 100 percent reserve banking, of no importance for this aggregate. Hence, contagion as suggested by the definition of some free bankers cannot be relevant for banking crises.

Why Fractional Reserve Banking Must Always Lead to Bank Runs

Under a fractional reserve banking system it is impossible to redeem all money substitutes. If a bank that has issued fiduciary money substitutes is forced to redeem more of its substitutes than money in its vaults, it has but one option to avoid bankruptcy. It has to borrow the money from other banks. The latter, thus, are confronted with the following dilemma: either they do lend the money, thereby depleting their vaults and becoming themselves illiquid, too. Or they refuse to lend the money and the former bank goes bankrupt. Then all of its customers—*but especially those who have not been able to redeem the substitutes in their possession*—will try to get some cash. They will search for money or money substitutes from the remaining banks. The deceived customers of the ruined bank need cash to maintain their daily transactions. They have no money to

deposit, but they need money or money substitutes right now. The remaining banks, however, are not able to accept them as customers. Their stocks of money have not been increased. The issue of further fiduciary money would inevitably make them illiquid. But even this refusal to issue additional quantities of fiduciary money cannot avoid their ruin. They are doomed, too. For if those deceived customers of the first bank cannot immediately dispose of cash they go bankrupt and thus cause liquidity problems for their creditors. Now the latter will have to ask the remaining banks for more cash, creating the old problem on a wider scale.

The contagion effect can only be stopped one way. There must be a bank that is able to satisfy all demands of redemption. However, if the failing market participant is big enough, contagion cannot be stopped at all, at least not if money production is as costly as in the case of gold.

One could ask whether it must necessarily come to a situation in which one single business failure proves to be too big to be borne by the banking system. The answer is: the principle of fractional reserve banking brings it about. Each banker can successfully operate on the hypothesis that in the case of a personal liquidity crisis, he can rely on his fellow bankers. It is in their interest to save him to avoid a bank run. Under such circumstances, the permanent expansion of fiduciary issues provides almost riskless profits. These are the objective conditions of fractional reserve banking. Even the less clever among the bankers will discover them after some years of business experience. Even the less alert among them will behave accordingly, that is, try to reduce their reserve ratio as far as possible. This expansion makes an individual failure ever more dangerous because the reserve ratio is further and further reduced.

It is the possibility of this expansion, however, which the free bankers deny. They claim that there are at least two obstacles for a bank willing to expand its fiduciary issue. The first obstacle to their note issues would be limited by the demand to hold them.[70] Banks are only capable of issuing according to the demand of their customers. All money substitutes that the latter did not really want to hold would quickly be returned to the bank and their redemption be demanded.

Undoubtedly it is true that all money substitutes held by the market participants are really wanted. Neither can it be disputed that each redemption of a money substitute means that its owner

does no longer want to hold it. This, however, is completely beside the point. The only question is whether the demand for money—and, thus, for its substitutes—is limited or not. Yet it certainly is not. Let us avoid any misunderstandings. Demand in the sense that the free bankers use this term means desire to dispose of money substitutes, it does not refer to "effective demand, to desires made effective by being 'demanded', i.e., by the fact that something else is 'supplied' for it."[71] It is the very intention of the free bankers to put liquidity at the disposal of market participants without forcing them to supply it. Considering the demand for money in this sense one has always to remember that money is a *present* good. It can be used now. No present good is available in a quantity that would satisfy *all* demands. This is precisely why it is a good. Hence, there is always demand for some more money to secure hitherto less important (submarginal) satisfactions. It is correct that under fractional reserve banking "market forces compel banks to issue more money, when, at given prices, more of it is demanded by the public."[72] But that demand is unlimited.[73] It therefore cannot limit the issues of fiduciary money.

However, the free bankers might say that the expansion of fiduciary money substitutes encounters still a second obstacle that will limit it. That is any expansion increases the risk of depletion of the money stock of the bank. True, but how does our banker know how much he can increase without going bankrupt? There certainly *is* some point beyond which his costs increase "faster than revenue, and so expansion beyond that point is unprofitable."[74] Yet, it is not the *existence* of such a point that is the problem, *it is the ignorance of its exact location*. No banker knows and can know exactly in advance what amounts of issues are still profitable and which prove to be ruinous. There is but one means to find it out: trial and error. This is, to be sure, the foremost principle of all action. But *in all other businesses than fractional reserve banking saving a competitor is no condition of one's own success* because individual failures (and follies) do not systematically lead to the breakdown of the whole industry. Fractional reserve banking is different. The reserves of the bigger banks may suffice to ignore bankruptcies of some minor competitors. Liquidity problems of big competitors, however, cannot be ignored. Every banker knows this. Every banker knows that it is in the interest of his fellow bankers to save him. Hence, he has every reason to be audacious in the exploration of that point beyond which the expansion of his fiduciary issues is

unprofitable. And at least the alert customers of the banks do know this, too. They will always be very alert for news indicating probable bank insolvency. Thus they will quickly redeem their money substitutes to protect themselves. Taking these precautions they behave in no conceivable manner "contrary to the theory that depositors stage runs simply out of fear that others might run."[75]

It is of no relevance that the market participants have less *confidence* in their business partners, be it banks or others. It is not important *where* the chain of failures sets in—in a bank or in some exogenous institution. All that is needed is that the error be sufficiently big to cause a sufficiently big bank to fail. Then a succession of failures cannot be avoided. Fractional reserve banking is frequently seen as a kind of multiplier of reserves. In fact, it is a multiplier of error. Fractional reserve banking is an iron chain that links the errors of one or a few market participants with the errors of all the others. Under 100 percent reserve banking, too, there may be some banks that engage in lending operations based on maturity transformation. This, however, is no characteristic feature of 100 percent reserve banking. But it is the essence of fractional reserve banking. Here *all* the banks by the nature of their operations are exposed to the risk of having to redeem claims of others without yet being entitled to demand the redemption of their claims.

Liquidity Crises in the Past

Relying on past events can often be helpful to illustrate political and theoretical issues. However, it can provide no evidence. Even if no failure of fractional reserve banking had occurred in the past this would be no proof that sooner or later it will not have this consequence. Therefore, two notes on this subject will have to suffice.

A central problem of the study of history refers to the *evaluation* of events. There are free bankers, for example, who consider three suspensions of payments in about 50 years time to be not much.[76] From the point of view of an enlightened economist this may be true. The point of view is different for someone who lost all or some of his wealth in one of these three panics. He suffers from an act of deception. He is ruined because his banker committed—willingly or not—fraud on him.

The free bankers have accorded much attention to the relative success—absence of any major crises—of the Scottish-

fractional-reserve banking system of the first half of the eighteenth century. The critics of fractional reserve banking have pointed to the dependence of the Scottish banks on the financial city of London. The latter in turn depended entirely on the Bank of England. Thus, Scottish free banking was not free at all, but a remote part of the English central banking system.[77] The free bankers deny this. In their eyes the "Scottish banks did buy and sell assets in the London financial market, but did not hold deposits at the Bank of England nor, it seems, any significant quantity of its notes. Nor did the Bank of England make last-resort loans to the Scottish banks."[78]

Yet it is immaterial whether the Bank of England was *directly* involved in securing money for the Scottish banking system. In times of trouble the Scottish banks could always rely on credits from London banks. The huge London market could always provide money if sufficient interest was paid. Thus it is because they resorted *indirectly* to issues of the Bank of England that the Scottish banks depended on the latter as well.

Contractual Remedies I: Option Clauses, Equity Claims, and Monetary Disintegration

The most striking contradiction in the free bankers' program is their grudging confession that it is unpracticable. No free banker disputes that the suspension of payments is the ultimate recourse of fractional reserve banks.[79] Yet, redeeming its money substitutes is no generous favor that a bank renders to its customers. Redemption cannot be suspended like granting credit. The inability to redeem is what constitutes bankruptcy. In *all* businesses it is the inability to pay money owed that constitutes bankruptcy. The free bankers, by contrast, believe that this inability could just be a tiny little liquidity problem. There may be banks, they say, which essentially are solvent. These banks just need some time to provide the liquid funds to pay out their impatient and ill-informed customers.[80]

This argument ignores the fact that time is a good. If we always disposed of just a little bit more time we could be sure to have reached nirvana. With always just a little bit more time one could provide all the money in the world. Unfortunately, every means in the mundane life of the human race is limited. Time, therefore, plays a crucial role for the success of action. In every place outside nirvana one has to pay for the time-saving means called goods. There is no possibility of providing "liquidity to the

market only."[81] One cannot pay with liquidity; one can only pay with goods.

Yet who pays for the banks if they are unable to pay for themselves? The free bankers reply that the bank customers might *agree* to pay for the banks. They might accept devices (such as option clauses and the transformation of money substitutes into equity claims) permitting the temporary suspension of payments. Thus the fractional reserve banks could always stay in business without ever violating contracts. It is very doubtful whether these contractual remedies would be contractual legitimations of fractional reserve banking.[82]

For the sake of the argument let us assume they would. However, they cannot be *remedies* for the shortcomings of fractional reserve banking. They merely permit banks to cure the liquidity problem by the issue of further fiduciary money substitutes, saving the banks at the expense of the other market participants. If this is a remedy then it is a very general one. Applying the same argument one could say that robbers merely solve their liquidity problems. Or imagine an engineer supplying motors that always explode. It is conceivable that he finds buyers for his products even if he warns them. Yet this does not change the fact that his motors *do* explode. If other people are damaged —which in the case of those motors will not occur as inevitably as in the case of fiduciary money—the engineer could argue: It is not only me and my customer who profit from the use of my motors. You profit from it, too, because the prices I charge are lower than those of my competitors. My motors are worse, to be sure, but the factor use in their production is lower. Hence, everybody profits from my product and from its exchange on the market. Forcing me or my customers to pay indemnities now is tantamount to ruining me. Then nobody will profit anymore. Give us just a little bit of time and let us continue our business. Then we shall be able to pay indemnities to everyone.

Nobody would accept such a proposal. If there is just one person suffering from the effects of the explosion the owner of the motor would have to pay an indemnity and stop using the motor. In the realm of banking another kind of law seems to prevail. If just one market participant does not give his consent to fiduciary issues and uses money instead his rights are violated. Yet, nobody is forced to pay indemnities and nobody is forced to abandon fractional reserve banking.

All alleged remedies for fractional reserve banking have one thing in common: they seem to shift the frontier separating

efficient and inefficient enterprises. They seem to retrieve some banks from liquidity crises that could not otherwise be salvaged. They promise the age-old economic would-be miracle of rendering submarginal projects profitable with more money, without more work, productive innovations, and savings-investment. This is, of course, an illusion. The quantities of all goods are always limited. Contractual remedies per se do not create new goods. They can save the banks—but the bill has to be paid by the other market participants. Option clauses, deposit insurance, and the transformation of money substitutes into claims on equity of the banks all imply higher inflation. Yet inflation is not costless. It is tantamount to prescribing higher doses to a drug addict, thus ruining him further. A drug addict, though, inflicts harm only on his property. The contractual remedies recommended by the free bankers harm even those who did not give their consent.

How can one seriously advocate a system without believing in its success? The free bankers do not torture themselves with questions of this kind. In strict accordance with the principle that if reality does not comply to theory then it is a poor reality, they propose to take another attitude to life itself. Selgin and White, for example, suggest that the unconditional demandability of banknotes and some deposit liabilities may be the result of legal restrictions rather than market forces:

> Discussions of bank runs and panics ordinarily assume that a bank continues to pay out base money until either all demands are satisfied or the bank is declared bankrupt. An alternative exists: a bank may suspend payments of base money before such payments render it insolvent and force it into bankruptcy. Although suspension is often regarded as inherently a violation of a bank's contractual obligations to holders of its demandable debt, the unconditional demandability of banknotes and some deposit liabilities may be the result of legal restrictions rather than market forces . . . Under laissez faire, bank liabilities might be conditionally demandable only.[83]

Yet the point is not whether the restrictions of the use of money substitutes are legal but whether they can be removed by an act of legislation. It is devoid of any sense to attempt a definition of legal restrictions covering any conceivable obstacle

to any action. No means can be used in the pursuit of opposite ends at the same time.[84] When I use my shoes to take a walk in Central Park you cannot burn them to heat your kitchen in Montana. Yet this is certainly a restriction of your actions. There is no difference in regard to money. Each use of an ounce of gold must exclude other uses which could be made of it. The legal interdiction to issue more claims to money than money exists merely acknowledges this fact.

Last but not least, no advocate of option clauses seems to be aware that as soon as they are used, a system of different *moneys* is established. The same holds true for all essays to link checking services to equity claims. When money substitutes cease to be claims on money and, though, continue to be used each of them constitutes a different price system. Before, all of them were just expressions of the disposition of money. Thus there was just *one* price system. Now, using them does not mean any more use of money. A general acceptance of such devices would thus lead to monetary disintegration.

Contractual Remedies II: Central Banking and Inflation

The only means to avoid monetary disintegration while preserving the principle of fractional reserve banking is to pool the money reserves. Contrary to the conviction of the free bankers[85] it is immaterial which form of cooperation this pooling takes. It can take the form of private-branch banking. It can also take the form of a private-central clearing house or of a government-imposed central bank. In each case the effects caused by concentration of money that, before, was dispersed are the same. Pooling permits a shift to large quantities of money to satisfy large but isolated redemption demands. Crises that, before, emerged out of a local liquidity problem can now be prevented. Redemption demands that, before, were critical for the whole monetary system can now be satisfied. Thus, apparently the necessary condition to stop a contagion crisis is now given. Finally, one bank seems to be able to satisfy all redemption demands.

However, one must not overlook that these effects are caused by the *pooling* of money, not by money pools as such. They are merely temporary. Pooling, therefore, cannot avoid bank runs forever. Because there are now greater facilities to provide liquidity the banks will expand their fiduciary credits,

thus reducing the reserve ratio again. Only for the time needed for this expansion can the pooled stock of money suffice to help even the biggest banks out of liquidity problems.

Sooner or later, however, the reserve ratio will be reduced to such an extent that the old problem appears on a new scale. Redemption demands that, before, were uncritical now become critical for the whole monetary system. Some banks become big enough to cause, by their failures, crises of the whole system. Hence, the pooling of money stocks does not change the underlying problem of fractional reserve banking. Its main effect is to keep bankrupt banks in business and to make the other market participants pay for it. Not only are the banks able to continue the issue of fiduciary money substitutes, they can even expand it. They grow, not by increasing their services but by expropriating the other market participants.

As no final relief can be brought about by the pooling of money stocks there are but two options for the management of the pooling institution. Either it has to break the redemption promise or it has to look for possibilities to profit from a further concentration of the money stock. This was the problem faced by the central banks during the time of the old (fractional reserve) gold standard. Suspension of payments by the central bank causes principally the same effects as suspension by a single bank. If its money substitutes continue to be used they take the place of the former money. The ensuing monetary disintegration will inevitably reduce the division of labor and permit the central bank to inflate almost at will. This is, of course, the situation we find today. On the other hand, a further concentration of the money stock must sooner or later lead to a pooling institution on a world scale. Then, at least, there would be no further solution to the persisting liquidity problem of fractional reserve banking than to break the redemption promise once and for all time. While this would have no disintegrating effects on the division of labor it would eliminate all obstacles for inflation.

However, the power linked to a (world) fiat money can only be preserved as long as hyperinflation does not result. Yet hyperinflation is inevitable if the banks are not prevented from ignoring liquidity constraints. There is but one efficient means to assure this: to regulate the free-banking, fractional-reserve, fiat-money system, that is, to impose violent restrictions on this business and especially on the credit volume. Of course, no legislation can prevent the reduction of the reserve ratio. Typically it forbids credit contracts that the rulers pretend to be

especially risky. It thus makes banking more bureaucratic, suppresses competition, and, contrary to its intentions, shifts the credits into more risky investments. Thus ever more regulation becomes necessary to suppress its own unintended consequences. The contractual remedies proposed by the free bankers are roads that lead to nowhere. Far from representing solutions they aggravate the problem. They force all other market participants to patronize a destructive system which sooner or later will lead them to hyperinflation or socialism.

The Necessary Failure of Fiat Money

How Gold Becomes Money in an Unhampered Market

The above sections have dealt with the monetary issues of banking. It has been shown that the case for fractional reserve banking is weak. The free bankers' arguments against 100 percent reserves, as well as their arguments for fractional reserves, are wholly untenable. The same holds true for money proper. Here the free bankers display the same inflationist predispositions, viz., their dissatisfaction with gold. Gold is criticized because its supply is not flexible, that is, not as inflationary as its opponents would like it to be. Of course this criticism is spurious on the same grounds as the case against 100 percent reserves.

The quantity of money does not determine the benefits of its use. *All* variations of its supply are harmful. The only qualification to this statement is the increased non-monetary benefits that stem from an increased supply of specie. However, it is not sufficient to prove the case against gold to be unfounded. One also has to show that the case for other moneys is futile. Can there be a case for fiat money? Is it conceivable that such a system could be successful?[86]

Money is exchanged to be exchanged again in the future. It is bought in exclusive consideration of its future purchasing power. Yet the only successful technique for the estimation of future prices is to base this estimation on present prices, that is, the prices of the immediate past. Today's money prices, therefore, will always rely upon money prices of yesterday. This is the meaning of Ludwig von Mises's regression theorem.[87] It has vast implications for the theory of money.

Its most important implication for the analysis of the competition between moneys is that it is impossible to introduce

new moneys out of thin air. History has featured just one technique for the introduction of new moneys. First, one issues documents representing a claim on money. These documents can become money substitutes if their owners can redeem them at par whenever they want. Yet, their circulation is restrained if they have the character of certificates because in this case a price has to be charged for their use. Once there are *fiduciary* issues, however, money substitutes can crowd money out of circulation. Whenever this happens, the opportunity has come for would-be entrepreneurs to *introduce* a new money. Their method is simple: they break the promise they gave and refuse redemption of the documents they issued. The latter can stay in circulation because there are already prices for them on the market. Yet, such an obvious violation of property rights on a wide scale is only possible if government does not assume its duty to punish that entrepreneur. Past governments have not only spared such persons from prosecution, they have often protected them or were even identical with them. Clearly the necessity of recourse to like procedures for the introduction of a new money represents an important limitation on competition in the realm of money. It is especially this practical aspect that has been completely overlooked by its champions.[88]

If there is more than one kind of money in use, the regression theorem has to be qualified in an important respect. There is, to be sure, still no possibility of introducing a new money out of nothing. It is still decisive for a market participant who is offered two moneys, A or B, to know at what exchange rate he can sell either of them in the future. The appreciation of this future exchange rate still has to rely upon past prices. But now another determinant of future money prices enters the scene. It is by his very decision to buy money A and not money B, that is, to use A and not B, that a market participant determines the future array of A- and B-prices. If he buys A instead of B he causes a tendency of B-prices to rise and a tendency of A-prices to fall. This means that the exchange rate A to B must rise in which case there would be incentives for him and other market participants to use A and to sell B. This in turn would accelerate this evolution further until B would be driven out of the market and A the only money left in use. In other words, *the simultaneous employment of more than one money implies that each market participant, by his very action, determines the success of this action*. It is his anticipation *per se* that favors its own correctness. This can hardly be said of any other action. In

the competition of existing moneys, thus, the progressive character of money-price formation (its orientation to future selling prices) is not only reinforced; it becomes a factor of success of its own. If the competing moneys can be handled with the same ease then this is the only mechanism by which one money can become supreme and drive all others out of employment.[89]

This self-accelerating process cannot be stopped by the fact that the market participants have often opposite views on future selling prices of the moneys in use. Indeed, there may be some who buy A because they expect A to rise and B to be driven out while others buy B because they expect the opposite. Even speculative activities to bring about a rapid fall in one of the moneys can possibly be equilibrated by activities of the same nature but of the opposite intent. However, once the exchange rate begins to move clearly in one direction it is impossible to prevent the outcome described above—unless there are obstacles hindering the self-fulfilling anticipation of future money prices. Now there are two—and only two—types of such obstacles. The first refers to non-monetary employment in which a money can be used. The second concerns the number of persons who exclusively use either A or B as money.

If a money cannot be used for other purposes than for indirect exchange there is incentive to buy it even at a very low exchange rate. This is obvious in the case of a pure-sign money—as signs do not even have a substance. It is also practically the case with a fiat paper money. One certainly could find *some* employment for mountains of printed paper (burning them for heating purposes, for example). Yet the costs of these actions are likely to outweigh the benefits which could be derived from them. On the other hand, the purchase of gold and silver can never be a complete failure. They are used for many non-monetary purposes—even when their employment as money is suppressed. Gold profits particularly from its physical properties:

> platinum, palladium and other precious metals are industrial metals in the possession of dealers and producers, which limits their marketability and deters their use as money. Even silver cannot compete effectively with gold because its current production, relative to its visible supply, is large, exposing its value to sudden changes in quantity. No other metal has such large stockpiles and small

> current production as gold. No other commodity enjoys as much universal acceptability as gold.[90]

However, one could claim that there still was the second obstacle for the complete abandoning of a fiat money. If there are market participants who exclusively use one money, the exchange rate of the latter can never fall indefinitely. It could always be sold to one of these persons. One could always get a useful commodity in exchange for it. Now, as a matter of fact fiat money is never the only money in use. At least gold and silver are used everywhere and by nearly everyone in the world.[91] As a consequence gold and silver market prices are omnipresent. Fiat money, therefore, cannot stay in the market if exchange is free. It can never outcompete gold and silver because the latter are also used for many non-monetary purposes. On the other hand, once it is outcompeted by them it can never peacefully come back. It is only preserved because the use of gold as a medium of exchange is systematically suppressed by legal tender laws, regulation of banking and financial markets, and by taxation in fiat money. Therefore, it is wrong to suggest that "neither gold nor inconvertible private currencies will emerge as money under present circumstances."[92]

Transition Toward a Free Money Supply: The Chimera of Competitive Policies

Changing the monetary constitution to bring about a free banking system would imply the exclusion of government intervention from money and banking. Yet it is important to pay some attention to the precise meaning of "depoliticizing of money."[93] Abolishing central banks would not lead to a system that was unpolitical in the sense that the banks would not affect the success of other market participants. It would be unpolitical in the sense that it would not be managed by the state, the agency of violent means.[94]

Abolishing central banks would *lead* to a system without government meddling with money. However, the *act* of abolishing central banks would favor some forms of free banking and necessarily prevent other forms. One cannot avoid performing a last measure of monetary policy in abolishing monetary policy altogether.[95] Hence, one cannot avoid answering the crucial question: what money system do I want? The free bankers feel very uncomfortable about this. They are

embarrassed by the necessity to choose, that is, to discriminate and they wish to circumvent this problem by permitting competition.[96] They do not see that one cannot create an amorphous entity called competition and thus remain neutral to the whole issue. *Whatever decision one will take, it will necessarily be a decision in favor of something*. Now, money competition will unavoidably lead to the expulsion of all fiat moneys. Even the creation of a world central bank (and thus of one world fiat money) could not prevent it. If this is correct, why not directly choose it? Is it a viable argument that "more than 50 years of being off the gold standard cannot be shrugged off? The past status of gold is not sufficient to guarantee its reestablishment as money?"[97] Let us disregard this fact that the western world is merely some 20 years off the gold standard. Let us skip for a moment the fact that the use of gold as money is suppressed. The real issue is: what are the alternatives? Can fiat money be said to favor freedom more than gold? Can fiat money persist at all? As long as these questions have to be answered negatively there is just one case for abolishing central banking. This is the case for gold. If there was no gold one would have to invent it. It is correct that a "return to gold without an end to the monopoly of currency issue would at best be half a solution."[98] But the same holds true for the inverse relation. Without a return to a 100 percent reserve gold standard, free banking would be far from a full-fledged solution.

A Banking System Which Works and Banking Systems Which Do Not Work

It is bizarre to follow a discussion of "devices for reducing the likelihood that a bank will be unable to provide a full payoff to the last customer in line"[99] with 100 percent reserve banking hardly mentioned. The free bankers claim that freedom means to place no restrictions "on the terms of contracts made between banks and their customers, beyond the requirement that they adhere to the standard legal principles governing all business contracts."[100] This is exactly the point. Yet, it is certainly not such a principle to permit—conscious or unconscious—robbery. The only possible conclusion concerning *legal principles* that justify fractional reserve banking would be that these principles themselves are wrong.

The claims against 100 percent reserve banking are fallacious. So are the alleged advantages of fractional reserves.

The principal objection, however, is that neither fractional banking nor fiat money are viable options for action in society. Either they must regularly perish (and each time pull the whole economy with them into disaster) or the payment for the errors they provoke must be coerced by ever increasing state intervention. Hence, the choice at stake is between capitalism and another road to serfdom called fractional reserve banking. One cannot have both.[101]

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[1] Kevin Dowd, David Glasner, Steven Horwitz, A. J. Rolnick, Larry Sechrest, George Selgin, Lawrence White, and Richard Timberlake. I shall concentrate my discussion on the works of Dowd, Selgin, and White. It is here that the doctrine is elaborated. By contrast, the contribution of Sechrest consists of a formal, i.e., mathematical, expression of their tenets; Glasner and Horwitz base their works heavily on Selgin's *Theory of Free Banking*; and Rolnick and Timberlake have contributed applications of free banking theory to historical episodes.

[2] See Fischer Black, "Banking and Interest Rates in a World Without Money," *Journal of Banking Research* 1 (1970); Eugene F. Fama, "Banking in a Theory of Finance," *Journal of Monetary Economics* 15 (1980); Robert E. Hall, *Inflation, Causes and Effects* (Chicago: University of Chicago Press, 1982); Robert L. Greenfield and Leland B. Yeager, "Laissez-faire Approach to Monetary Stability," *Journal of Money, Credit, and Banking* 15 (1983).

[3] See Neil Wallace, "A Legal Restrictions Theory of the Demand for 'Money' and the Role of Monetary Policy," *Federal Reserve Bank of Minneapolis Quarterly Review* (1983); Thomas Sargent and Neil Wallace, "The Real-Bills Doctrine versus the Quantity Theory: A Reconsideration," *Journal of Political Economy* 90 (1982).

[4] With the exception of Kevin Dowd, see, *The State and the Monetary System* (London: Phillip Allan, 1989), p. 188; idem., *Laissez-faire Banking* (New York: Routledge, 1993), pp. 66f; David Glasner, *Free Banking and Monetary Reform* (New York: Cambridge University Press, 1989), p. 240f; and Richard

Timberlake, *Gold, Greenbacks, and the Constitution* (Berryville, Va.: George Edward Durell Foundation, 1991), pp. 60ff. For a critique of the latter see Rothbard, "Aurophobia: or, Free Banking on What Standard?," *Review of Austrian Economics* 6, no. 1 (1992): 97–108.

[5] George Selgin and Lawrence White, "How Would the Invisible Hand Handle Money?," *Journal of Economic Literature* 32 (1994): 1737. See also Lawrence White, "Identifying Money," in his *Competition and Currency* (New York: New York University Press, 1989), pp. 206ff.

[6] See the contrary opinion of White, ibid., pp. 134f.

[7] See, for example, V. C. Smith, *The Rationale of Central Banking* (1936; Indianapolis, Ind.: Liberty Classics, 1990); Kevin Dowd, *Laissez-faire Banking*, esp. chap. 10.

[8] It is noteworthy that what is said about banks applies to virtually all financial intermediaries dealing with money substitutes. Money substitutes are not only banknotes and demand deposits but principally *all* claims that have to be redeemed at par into money whenever the holder of the claim likes to have money substitutes. See in particular Murray N. Rothbard's excellent analysis of money substitutes in the 1920s in *America's Great Depression*, 4th ed. (New York: Richardson and Snyder, 1983), p. 83.

[9] See Condy Raguet's discussion "Of Banks of Deposits, Banks of Discount, and Banks of Circulation" in his *Treatise on Currency and Banking* (New York, 1840), pp. 67ff.

[10] See, Hans-Hermann Hoppe, "How is Fiat Money Possible," *Review of Austrian Economics* 7, no. 2 (1995): 57.

[11] This argument was used by Condillac in order to claim that not only the quantity of money is rather irrelevant but that, on the contrary, it would be advantageous if it were smaller ("On voit donc qu'il est assez indifférent qu'il y ait beaucomp d'argent, et qu'il serait même avantageux qu'il y en eut moins. En effet, le commerce se ferait plus commodement. Quel embarras ne serait-ce pas si l'argent était aussi commun que le fer?" (*Le Commerce et le gouvernement* (Paris, 1795), p. 87).

[12] Lawrence White, *Competition and Currency*, p. 200.

[13] George Selgin, *The Theory of Free Banking* (Washington, D.C.: Cato Institute, 1988), p. 53.

[14] Larry Sechrest, *Free Banking: Theory, History, and a Laissez-faire Model* (Westport, Conn.: Quorum Books, 1993), p. 66.

[15] Dowd, *The State and the Monetary System*, p. 25.

[16] Steven Horwitz, *Monetary Evolution, Free Banking, and Economic Order* (Boulder, Colo.: Westview Press, 1992), p. 115.

[17] Selgin and White, "How Would the Invisible Hand Handle Money?": 1726.

[18] See Selgin, *The Theory of Free Banking*, pp. 60ff. Transfer credit is "credit granted by banks in recognition of people's desire to abstain from spending by holding balances of inside money" (p. 60). This of course, is no definition. Every use of money implies the holding of it.

[19] Ibid., p. 55.

[20] See the following, for example, W. H. Hutt, *The Keynesian Episode* (Indianapolis: Liberty Press, 1979), pp. 51ff.

[21] See the analogous remarks of Mises concerning the possibility of stabilizing the value of money in his *Theory of Money and Credit* (Irvington-on-Hudson, N.Y.: Foundation for Economic Education, 1971), pp. 123–31.

[22] For example David Ricardo, *The High Price of Bullion*, Works 3 (London: John Murray, 1811), p. 73.

[23] G. Selgin and L. H. White, "The Evolution of a Free Banking System," in Selgin, *The Theory of Free Banking*, chap. 2, and in White, *Competition and Currency*, chap. 12; also Dowd, *Laissez-faire Banking*, pp. 26–33, 59–68.

[24] See Ludwig von Mises, *Human Action* (Chicago: Henry Regnery, 1949), pp. 571ff; and Murray N. Rothbard, *Man, Economy, and State* (Los Angeles: Nash, 1962), pp. 850ff.

[25] By the way, it is not true that a reduction of the inflated money stock is the cause of crises. It is already the widespread *injection* of additional money via the credit system which implies that money calculation has to fail on a wide scale. Once the failure becomes obvious in the form of a crisis, a reduction of the money stock has the effect of accelerating recovery. Hence, one cannot claim that "Austrian economists such as Rothbard *add* that it was the Fed's expansionary policies during the 1920s that precipitated the crisis, which was exacerbated by the Fed's later inaction" Steven Horwitz, *Monetary Evolution, Free Banking, and Economic Order*, p. 182 [emph. added]. This claim presupposes that monetary expansion is but a detail in the picture of business cycles and that Rothbard shared the view that it is the drop of the money stock which creates crisis. Neither is true.

[26] For a vain attempt to prove the contrary, see, Dowd, *The State and the Monetary System*, p. 60ff.

[27] In a brilliant analysis Fritz Machlup demonstrated that

the time horizon for which a credit is given has nothing to do with the time horizon of its employment. It is thus illusory to believe that fiduciary issues would only finance transfers (*Börsenkredit, Industriekredit und Kapitalbildung* [Vienna, 1931], pp. 139, 179ff).

[28] Selgin, *The Theory of Free Banking*, p. 54.

[29] Ibid., p. 55.

[30] White, *Competition and Currency*, p. 158.

[31] See also Horwitz, *Monetary Evolution, Free Banking, and Economic Order*, p. 120f; Dowd, Laissez-faire Banking, p. 65f.

[32] White, *Competition and Currency*, p. 158.

[33] Selgin and White, "How Would the Invisible Hand Handle Money?": 1724–5.

[34] Glasner, *Free Banking and Monetary Reform*, p. 174f.

[35] This means the quantity of money (money in the narrower sense) plus the quantity of fiduciary money substitutes. The latter always equals zero in a 100 percent reserve system. The money supply in the larger sense, then, always equals the money supply in the narrower sense. Only in a system of fractional reserves can these two aggregates deviate from one another.

[36] Consequently, it is not surprising that some advocate the absurd idea that the crisis of the thirties had been the outcome of heavy variations of the value of gold (Glasner, *Free Banking and Money Reform*, p. 222ff). For a critique see the articles by Wiegand, Kemmerer, and North in *Gold Is Money*, Hans Sennholz, ed. (Westport, Conn.: Greenwood Press, 1975). Cause and effect are confused. The value of gold changed heavily because of big variations of the quantity of its substitutes. The same confusion prevails about the variations of the gold price of the 1980s. Gold went up because many market participants expected it to soon become money again. It went down when it became obvious that these expectations were premature. This was partly due to the views of experts who considered it as "a commodity whose purchasing power is subject to violent and erratic fluctuation" (White, *Competition and Currency*, p. 131).

[37] "[I]t takes time for changes in spending to influence prices in a general way" Selgin, *The Theory of Free Banking*, pp. 53f.

[38] Convertibility taken fallaciously in its larger, meaningless sense. See the section entitled "Money and Substitutes for Money" in a previous section in this article.

[39] Selgin, *The Theory of Free Banking*, p. 54.

[40] Ibid.

[41] Horwitz, *Monetary Evolution, Free Banking, and Economic Order*, p. 134.

[42] Unfortunately, such conceptual confusion prevails also in one of the most brilliant expositions of the problems of fractional reserve banking, see, F. A. Hayek, *Monetary Nationalism and International Stability* (London: Longmans, Green, 1937).

[43] Horwitz, *Monetary Evolution, Free Banking, and Economic Order*, p. 135.

[44] Selgin, *The Theory of Free Banking*, p. 55.

[45] Note that its application in the context of savings-investment is incompatible with its application to justify the "anchor theory." However, as both are fallacious we do not have to dwell on inconsistencies between the tenets of the free bankers.

[46] Horwitz, *Monetary Evolution, Free Banking, and Economic Order*, p. 135.

[47] Selgin, *The Theory of Free Banking*, p. 62.

[48] Murray Rothbard, "The Case for a 100 Percent Gold Dollar," in *In Search of A Monetary Constitution*, Leland B. Yeager, ed. (Cambridge: Harvard University Press, 1962), pp. 115–6. Reprinted in book form by the Ludwig von Mises Institute, Auburn, Alabama in 1991.

[49] Horwitz, *Monetary Evolution, Free Banking, and Economic Order*, p. 115.

[50] Ibid., p. 131.

[51] Selgin and White, "How Would the Invisible Hand Handle Money?": 1725 n.

[52] Dowd, *Laissez-faire Banking*, p. 48. This is precisely the argument of the central bankers. Goodhart, for example, claims that central banks are necessary "to support the residual, risky, 'true', banking institutions, which were undertaking the necessary function of making loans to borrowers who could not otherwise sell their own equity and debt in extant financial markets" ("Are Central Banks Necessary?," *Unregulated Banking: Chaos or Order?*, Forrest Capie and Geoffrey Wood, eds. (London and New York: St. Martin's Press, 1989), p. 18).

[53] Murray N. Rothbard, *Power and Market*, 2nd ed. (Kansas City: Sheed Andrews and McMeel, 1977), p. 186.

[54] Rothbard, "The Case for a 100 Percent Gold Dollar," pp. 114f.

[55] White, *Competition and Currency*, p. 156.

[56] Ibid., p. 157.

[57] Ibid., p. 156.

[58] Horwitz, *Monetary Evolution, Free Banking, and Economic Order*, p. 97.

[59] Ibid., p. 100.

[60] It seems to be the intention of discussing Simmel's work at length to prepare the ground fora communication theory of money (ibid., pp. 91ff). The same reproach must be made for citing Mises's ideas on the importance of language from his *Nation, State, and Economy* (New York: New York University Press, 1983). Indeed, these belong to the few ideas Mises considerably revised later on (*Omnipotent Government* [New Haven, Conn.: Yale University Press, 1944]). It is impossible to claim his authority in support of the tenet that "ideas do not exist extralinguistically" (Horwitz, *Monetary Evolution, Free Banking, and Economic Order*, p. 186).

[61] See Machlup, *Börsenkredit, Industriekredit und Kapitalbildung*, pp. 143ff.

[62] Horwitz, *Monetary Evolution, Free Banking, and Economic Order*, p. 146 n. 46.

[63] Milton Friedman, "The Resource Cost of Irredeemable Paper Money," *Journal of Political Economy* (1986).

[64] Here my opinion deviates from that of Rothbard. He says: "A man may allocate his money to consumption, investment, or addition to his cash balance." (*Man, Economy, and State*, p. 678, see also pp. 179f), thus suggesting that holding a cash balance is something different from savings-investment. Hans-Hermann Hoppe has given another expression to this view in claiming that time-preference and the utility of money are "two distinct and praxeologically unrelated factors" (*The Economics and Ethics of Private Property* [Boston: Kluwer, 1993], p. 119). To be sure, there is no causal connection between the demand for money and the interest rate. Increasing the quantity of money cannot reduce the interest rate because money's *real* value, its purchasing power, would be reduced accordingly. Yet this is no reason to overlook the unity in all *acts*, viz., in all valuation. Value is the preference accorded to an effect, and at least in the realm of action this can mean nothing but that the preferred effect should be achieved *before* alternative but less urgent effects. As action—and all other means—are always employed in the pursuit of some ends or effects acting man necessarily has to value (i.e., select) his means according to the urgency of the ends they are supposed to achieve. Thus, time-

valuation is present in all actions. Actions with money can be no exception.

However, it should be noted that it is the holding of *money* which constitutes savings-investment. The holding of money substitutes, on the other hand, does not constitute savings-investment but *claims* on savings-investment in the form of money. It *cannot* give disposition of more than the existing stock of money—even if the owners of fiduciary money substitutes *believe* the contrary to be the case. See Böhm-Bawerk, "Rechte und Verhaeltnisse vom gueterwirtschaftlichen Standpunkt," in *Gesammelte Schriften* (Frankfurt/M.: Sauer & Auvermann, 1968).

[65] Rothbard, *America's Great Depression*, p. 16.

[66] Selgin and White, "How Would the Invisible Hand Handle Money?": 1725.

[67] Ibid.

[68] Hasan Ifedhar and Gerald P. Dwyer Jr., "Bank Runs in the Free Banking Period," *Journal of Money, Credit, and Banking* 26 (1994): 284. Or, in the terms of A. J. Rolnick and W. E. Weber: "free bank failures were not caused by individuals establishing free banks with the same intention of having them fail. Rather, free banks failed when economic times turned bad and the value of their portfolio declined. Thus, the problems of banks during this period do not appear to have been different from those encountered by banks in other periods or by other types of industries" ("The Causes of Free Bank Failures," Journal of Monetary Economics 14 (1984): p. 290. See also Glasner, *Free Banking and Monetary Reform*, p. 203; Dowd, *Laissez-faire Banking*, pp. 218f; Horwitz, *Monetary Evolution, Free Banking, and Economic Order*, p. 152ff).

[69] Selgin and White, "How Would the Invisible Hand Handle Money?": 1726.

[70] Dowd, *The State and the Monetary System*, p. 62. See also the references given above in the section entitled "Does Fractional Reserve Banking Lead to Monetary Equilibrium."

[71] Rothbard, *Man, Economy, and State*, p. 677.

[72] Selgin and White, "How Would the Invisible Hand Handle Money?": 1725.

[73] It is unlimited without regard to the prevailing money prices on the market. The latter, however, rise every time the quantity of fiduciary money substitutes is enhanced. They must necessarily be higher than they otherwise would have been. The circumstance, too, leads to higher demands for holding money.

[74] White, *Competition and Currency*, p. 25, Cf. also Selgin,

The Theory of Free Banking, p. 46.

[75] Selgin and White, "How Would the Invisible Hand Handle Money?": 1726.

[76] Ibid., p. 1726. They note that *only three* out of six major panics in the National Banking era involved suspensions of payments.

[77] See Murray N. Rothbard, "The Myth of Free Banking in Scotland," *Review of Austrian Economics* 2 (1987): 229–45. See also Charles Goodhart, *The Evolution of Central Books* (Cambridge, Mass.: MIT Press, 1988), p. 51f.

[78] Selgin and White, "How Would the Invisible Hand Handle Money?": 1732. See also Lawrence White, *Free Banking in Britain: Theory, Experience, and Debate, 1800–1845* (Cambridge: Cambridge University Press, 1984); Dowd, *Laissez-faire Banking*.

[79] Cf., e.g., Selgin, *The Theory of Free Banking*, p. 137; Glasner, *Free Banking and Monetary Reform*, pp. 199ff.

[80] Cf. Dowd, *Laissez-faire Banking*, p. 48.

[81] Selgin and White, "How Would the Invisible Hand Handle Money?": 1727.

[82] For a refutation of this claim of the free bankers see Hans-Hermann Hoppe, "How is Fiat Money Possible?": 70f.

[83] Selgin and White, "How Would the Invisible Hand Handle Money?": 1729.

[84] On this point see Hoppe, *The Economics and Ethics of Private Property*, p. 14.

[85] Cf. Selgin and White, "How Would the Invisible Hand Handle Money?": 1732f.

[86] For the following see the third part of my *Logik der Währungskonkurrenz*, forthcoming from Frankfurt/M: R. G. Fischer, 1996.

[87] See Ludwig von Mises, *Theorie des Geldes und der Umlaufsmittel*, 2nd ed. (Munich and Leipzig: Duncker & Humblot, 1924), pp. 85ff, also published in English as *The Theory of Money and Credit*, H. E. Batson, trans. (London: Jonathan Cape, 1934); idem, *Human Action*, pp. 408ff.

[88] In his *Denationalization of Money*, 2nd ed.(London: Institute for Economic Affairs, 1978) Hayek simply skips the problem that the Ducates, which he wants to introduce by a redemption promise, can only become money if this promise is broken. In fact Hayek's Ducates are money substitutes and not money. Otherwise they could never be issued. White holds the same misconception. See also White, *Competition and Currency*, p. 132. For a critique of Hayek's ideas on the introduction of

moneys, see Martin Hellwig, "What Do We Know About Currency Competition?," in *Zeitschrift für Wirtschafts Sozialwissenschaften*, 105, pp. 565ff.

[89] The selection of media of exchange of our hitherto non-monetary commodities. See for this mechanism Carl Menger, *Money*, in *Collected Works*, Vol. 4, F. A. Hayek, ed. (1933–36; London: London School of Economics, 1970), esp. chap. 8, sec. 1.

[90] Hans F. Sennholz, *Money and Freedom* (Spring Mills, Penn.: Libertarian Press, 1985), p. 67.

[91] It is futile to cite the German hyperinflation of 1923 as indicating "that inflation can reach mindboggling proportions before alternative currencies can gain a foothold," (White, *Competition and Currency*, p. 132). For anyone acquainted with the German mentality of this time it is rather "mindboggling" that even blind trust in authority and heavy penalties could not prevent the use of all sorts of other moneys.

[92] White, *Competition and Currency*, p. 131.

[93] Cf. Dowd, *The State and the Monetary System*, p. 185ff; White, *Competition and Currency*, p. 91ff.

[94] For the distinction between economical and political means see Franz Oppenheimer, *The State* (New York: B. W. Heubsch, 1914), pp. 24ff.

[95] For the same reason there can be made no vital distinction between rules and discretion as principles of the conduct of monetary affairs. Every rule prescribing *ex ante* how much money has to be issued at what times and in what places and circumstance is discretionary by the very fact that it has to be set up by *someone*. A rule specifying, e.g., different behaviors of central bank officials according to different circumstances cannot even be said to be more "stabilizing" than any pure discretion on their side. It is therefore that rules vs. discretion is a false dichotomy, not because fractional reserve banking has been overlooked as a third alternative (as suggested by Horwitz, cf. *Monetary Evolution, Free Banking, and Economic Order*, p. 125f).

[96] "[T]he choice . . . ought not to be foreclosed by anticompetitive policies" (White, *Competition and Currency*, p. 162). Unfortunately this attitude is not limited to the ranks of the free bankers. See also Sennholz who seeks "merely freedom" (*Money and Freedom*, p. 77).

[97] White, *Competition and Currency*, p. 130.

[98] Ibid., p. 135.

[99] Selgin and White, "How Would the Invisible Hand

Handle Money?": 1730.

[100] Ibid., p. 1719.

[101] For plans to attain free banking on a 100 percent gold standard see Mises, *The Theory of Money and Credit*, pp. 485ff and Rothbard, "Aurophobia: or, Free Banking on What Standard?": 107f.

Portfolio Management off the Free Banks off Illinois: An Examination off Historical Allegations

Salim Rashid and Abdus Samad

The period between 1836 and 1863 constituted an era of free banking in the history of the United States. During this time, withdrawal of regulations by federal and state governments left the banking industry relatively free. Any person or association of persons could open a bank without legislative charter or permission. The opening of a bank was relatively easy. The only restriction was the capital requirement which was limited to not less than $50,000. The liability provision of the bank was "limited." The shareholders of the bank were liable to the amount of their stocks. During the early stage, banks could be opened in any city, town or village without any population restriction. However, in 1854 and 1857 restrictions of varying numbers were imposed. For example, a bank could not be opened in a locality with a population of less than 1,000. As a result of the relative ease of banking there was a large growth of financial institutions. In Illinois, financial growth was noticed in the operation of 141 banks and their increased volume of money supply and deposit transactions.

The literature on free banking has sharply altered its focus in the last two decades. While the alleged failures of free banking have been closely analyzed and shown to have been greatly exaggerated the link to fractional-reserve banking has been missed in the literature so far. Economopoulos (1988), who pioneered the modern study of Illinois free banking, mentions this issue and we would like to draw out its full implication.

During the period between 1852–1863 a total of 131 banks closed in Illinois. So it was alleged that free banking led to bank failures and "wildcat" banking, i.e., that banks were engaged in issuing liabilities without any cash reserves in their vault or capital and assets to protect these liabilities. Note holders in particular were at risk. In order to avoid payment of the liability

holders' claim, banks were said to have resorted to various unfair practices such as holding fake specie reserve and locating bank offices in an unknown or inaccessible place where they would be difficult to find. Here are a few examples of such views:

> Banks of very dubious soundness would be set in remote and inaccessible places where "wildcats" thrived. Banknotes would then be printed, transported to nearby centers, and circulated at par. Since the issuing bank was difficult, often dangerous, to find, redemption of banknotes was, in this manner minimized. (Luckett 1980)
>
> Speculators bought bonds, issued notes to pay for them, and eluded their debtors by taking to the woods among the wildcats. Notes were issued by bankers with no known business. Their (banks) cash were sometimes of nails and broken glasses with a layer of coins on the top. (Hammond 1963, 1957)

The allegation of fraudulent banking practices and insolvency of Illinois banks was that they had little capital reserves or liquidity to support their liabilities. Liquidity in particular requires a study of the portfolio of these banks. Many of the details stated in what follows rely upon Samad (1991) to which the interested reader is referred.

Review of the Literature

The study of the free banking period has been an important topic in the context of our present banking crisis and several studies have looked into our banking heritage. Hugh Rockoff's pioneering thesis (Rockoff 1972) asserted that the provision of par value of the bonds, particularly when the par value of the bond was greater than the market value, caused wildcat banking in most states and thus failure of free banking. According to him, the states that witnessed wildcat banking were Illinois, Indiana and Wisconsin. Recent studies (Economopoulos 1990; Rolnick and Weber 1982, 1984; and Samad 1991) found no such evidence, for Illinois in particular.

Hilderlith and Rockoff (1973) made an important study on free bank's portfolio management which found the reserve position of the free banks in Boston, New York, and Philadelphia to be the product of careful decision making instead of erratic, gambling behavior. For example, risk-averting banks with a high

capitalization rate were found to have held less reserve compared to banks with a low capitalization rate. Banks issuing more deposit liabilities as a source of bank funds were found to have held more reserves since they were exposed to higher risk than the banks which issued less deposit liabilities.

Rolnick and Weber's (1982, 1984, and 1986) studies provided new findings which challenged the traditional view of free banking failure. According to their studies, it was not Rockoff's par valuation provision but rather it was the sharp decline in the asset prices which were backing notes that caused the liability holders to panic and ultimately led to free bank failure. Their study covered four states, New York, Minnesota, Michigan, and Indiana. Illinois was not covered in their study nor did they study the portfolio management behavior of the free banks.

Economopoulos (1988, 1990) made two important studies. One study (1990) was related to Wisconsin Free Bank. In his study of Illinois Free Bank, Economopoulos (1988) examined two hypotheses: (a) the wildcat banking hypothesis and (b) the falling asset hypothesis. The main focus of his study was directed to testing the hypothesis that falling bond prices caused bank failures in Illinois, and he found some evidence in support of this. During the period of June 1860 and June 1861 he found many bank failures (89 banks failed) associated with the sharp decline—55 percent drop—of bond prices. "[T]hus the evidence indicates that the fall of bond prices was a major factor in the free bank failures of Illinois" (p. 263). He tested the wildcat banking hypothesis with the criteria of Weber and Rolnick and found that "traditional accounts of wildcat banking in Illinois are unsubstantiated" (p. 263). Economopoulos (1990) examined the portfolio management behavior of Wisconsin's free banks. He found that "solvent banks held more loans and specie, and issued more deposits and less banknotes than closed banks." However the portfolio behavior of Illinois banks was not covered by either study.

Our study differs from the earlier studies in examining Illinois's wildcat banking through various indices to measure the bank's ability to pay short-term debt obligation and the bank's way of utilizing debt (lender's money). These ratios, computed from the various aggregate balance sheets of the free banks, are used as the quantitative measure for testing the bank's fraudulent and liquidity behavior. Furthermore, we have made a comparative study with the portfolio balances of the Ohio free

banking system. Ohio was one of the states which had a successful free banking system. It is, therefore, important to compare the portfolio behavior of the two banking systems to determine whether or to what extent Illinois experienced responsible banking practices.

Our study relies on different data sources. In addition to the State Auditor's reports, the most important source of Economopoulos's study, we have used various U.S. House Executive Documents and reports of the U.S. Controller of Currency. In fact, the latter two sources constitute the most important sources of our data base. Our results are similar to that of Economopoulos except in minor variation of number and the percentage, and thus serve to reinforce his conclusions on wildcat banking.

Therefore, the main focus of this paper is to examine the portfolio behavior of the free banks of Illinois in connection with the historical allegation.

Portfolio of the Illinois Free Banks and Evidences

Like any other business corporation, the Illinois bank of the antebellum period was a private firm that provided depository as well as note-issuing services. The banks were engaged in manufacturing and retailing "money" in their quest for profits subject to some constraints. While the banks held deposits from the individuals and businesses and issued notes to support their loans, banks were required to deposit an equivalent amount of the U.S. or state bonds to the State Auditor. These bonds were valued at the market price, *not* at their face value.

Their lending policy was also subject to some legal restrictions. The bank could not legally charge more than seven percent although the market interest rate was higher than seven percent (Cole 1919; Samad 1991). Here is a quote from Article 28 of the Illinois Law 1851:

> That any such association or banker, in doing business under the provision of the Act, shall not be authorized to take or receive exceeding seven percent per annum as interest on real or personal security.

The bank's objective was to increase its shareholders' wealth. Profit maximization depends on successful portfolio management. Striking a balance between profitability and

liquidity is the key concept for successful bank management. A prudent banker must choose assets, including liquid reserves, to ensure adequate protection from illiquidity while generating enough income to stay in business. This is not an easy task. Given a banker's preference for risk, portfolio choice becomes a function of the structure of asset and liability influencing risk and return. Although bankers' risk preference differed across banks, the bankers of Illinois free banks, in general, are assumed to have been risk averse instead of risk lovers.

Unlike today, there were no reserve requirements in the free banking era. As a result, a bank's own assessment of risk and return decided the portion of the total assets to be held in reserves. The banks of this period could issue deposit and note liability, apparently, without any restriction of reserve requirements. However, banks were required to deposit 100 percent U.S. or state bonds to the State Auditor as collateral to support their banknotes. Article 2 of the Free Banking Act of Illinois states:

> whenever any person, or association of persons, formed for the purpose of banking under the provisions of this act shall lawfully transfer to and deposit with auditor any portion of public stocks issued, or to be issued, . . . such a person, or association of persons, shall be entitled to receive from the auditor *equal amount of such circulating notes*. (*Illinois Law* 1852)

The *Banker's Magazine* states:

> when a general banking law was passed, which authorized any person or persons, on depositing with the Auditor of the State any of the stocks of the United States . . . *to receive an equal amount of banknotes, to be used for banking purposes*. (1854, p. 13)

Thus as long as a bank could provide U.S. or State bonds as collateral for the amount of note-liabilities, there was no restriction on a bank to issue notes. Illinois free banks were subject to much harder restrictions than the present commercial banks; like the demand deposits, the notes of the free bank issued were required to be redeemed in specie (gold and silver coin) on demand whenever they were presented to the counter of the

bank. If a bank failed to redeem its notes on demand, the note-holder had a legal right to sue and close the bank. Such a right of closing a bank lent an added emphasis for liquid reserves in the portfolio management of the free banking system.

The study of free banks' reserves, and their liquidity in particular, must be analyzed from the context of the economic environment in which the banks operated and the aggregate structure of their assets and liabilities.

Illinois Economic Conditions

An understanding of Illinois economic conditions in the 1850s—the structure of its population, agriculture, industry and transport—is essential for the study of banks' portfolio management, and lending behavior in particular. In the 1850s Illinois was making a rapid transition. It attracted a special breed of migrants during the second quarter of the nineteenth century. Whereas the earlier migrants of Illinois were, as Governor Ford described, "unambitious of wealth and great lover of ease," the new migrants, "Yankees" in particular, who moved from the eastern provinces were great lovers of unending wealth and risk. They were talented workers, capitalists and above all entrepreneurs (Ford 1942; Pooly 1908). They were extremely eager for bank credit to build up their fortune.

During the 1830s and 1840s there had been tremendous development of river, canal, and railroad transport in Illinois. This transport development paved the way for the development of agriculture, industry, and commerce. The prairie land of Illinois was brought under large and commercial farming. Investments in agricultural implements and machinery demanded the release of bank credit to help sustain the growth of agriculture. The surplus produce of commercial farming had to find markets. People involved in marketing needed capital. Bank credit was the only source which could provide financial support to their needs.

Thus the need for capital, bank credit in particular, was fundamental to the farmers, manufacturers, and merchants. The state desperately needed bank credits to meet the economic needs of the people at the time. The market for bank credits already existed. Only local banks and their supply of bank credits were absent. "After the general crash in 1837, the state (Illinois) was without banking associations until 1851" (*Banker's Magazine*, July 1854, p. 13).

Some businesses from outside Illinois were taking advantage of this tight financial situation. For example, the Wisconsin Marine & Fire Insurance Company was successfully issuing notes in Northern Illinois although it was declared illegal for Wisconsin Marine & Fire to issue notes. Although its notes were illegal, the people of Illinois who were in need of money were accepting them in large numbers. They paid no heed to the law.

The banks of Missouri and Ohio were also successfully banking in Illinois. Each year these banks earned substantial profits and transferred them from Illinois into their mother states. People in need of credit to meet their needs were accepting them without giving any consideration of the origin or legality of these banks.

Illinois free banks opened at a time when there was such a pressing need for their loans. In this condition of financial hunger, the supply of loans by way of banknote would not be turned down by individuals and would not be returned to the clearing-house for redemption (Selgin 1988, p. 67). The issue of banknotes to finance the credit needs of the individual and business acted as a medium of exchange side by side with specie.

Asset-Liability Structure of the Illinois Free Banks

The free banks of Illinois were required to report their assets and liabilities, the names of their stockholders and the bank's location to the Office of the State Auditor, and the auditor's office in turn published this information in its biannual reports. An aggregate balance sheet is randomly selected from the Bank Commissioner's Condition Report and presented in Table 1 to show the nature of assets and liability of the free banks.

Liabilities

It appears from the aggregate balance sheets (Samad 1991, various House Executive Documents) that the free banks of Illinois were engaged in issuing two major types of liabilities: banknote and deposits. The paid up capital of the banks was the major source of the bank funds except in three years, i.e., 1855, 1859, and 1860. The paid up capital was required to be invested in long-term U.S. and state bonds. By depositing these eligible assets, the banks obtained an equivalent amount of banknotes for circulation. These notes were exchanged for loans and discounts, for specie or additional investments in bonds, i.e., they acted as a

medium of exchange. However, these notes constituted about 43 percent of the total liabilities. The year-by-year distribution of banknotes is presented in the Table 1 in Appendix 1.

The issue of notes had two special characteristics. Banks were exposed to high risk when the notes of the bank could not be redeemed on demand. Failure to pay note-holders on demand would, in normal circumstances, result in the forfeiture of banking license. Such a harsh penalty provision provided bankers, prudent bankers in particular, an incentive to maintain adequate cash (specie) reserves or near cash reserve (which could be redeemed into specie with less time and cost) to meet the liquidity needs of the bankers.

The amount of banknotes in circulation was linked to the deposits of U.S. and states bonds. As such, the notes were safe and exchanged for loans and discounts or specie or additional investments in bonds. These notes acted as a medium of exchange just like specie.

As depository institutions, free banks were also issuing deposit liabilities. Deposits of the Illinois banks constituted a small percentage of the total liability because of the agrarian economic character of Illinois. Deposits were mostly savings. Deposit liability has advantages. One of the greatest benefits of issuing deposit liability is that the deposit holders could not invoke banking license on default. Thus, banks were not required to back these deposits with bond collateral. Secondly, interest payment on deposit was not a common practice during those days (Economopoulos 1990, p. 426).

In case of bank failure, note-holders' claim was applied first. This first lien provision and the legal rule that noteholders could revoke banking license if a banknote was not redeemed on demand provided an incentive for the bank depositors to put their money on saving deposit and monitor the financial position of the bank.

Miscellaneous liabilities constituted a very small percentage and therefore did not warrant discussion.

Assets

The assets of the Illinois free banks were made up of reserves and investments in varying combinations.

Reserves were the bank's most liquid assets and were mostly non-earning assets. Since reserve items are not profit making, banks usually keep them at a minimal level. As opposed to the

division of reserves of the present time like legal reserve, required reserve, and excess reserves, etc., the free bank was not subject to any such legal reserve requirement. Banks decided the amount of minimum reserves as the amount which provided safety for the bank, on one hand, and maximum opportunity of earning on the other. The most liquid assets of the free banks were, in descending order of liquidity, specie reserves, notes of other banks, bankers' deposits with other banks, additional investment in U.S. and states bonds, and real estates.

Specie in the bank's vault was the most liquid asset of the bank. It was the legal tender of the period. As the specie reserve was a non-earning asset, banks determined their amount based on past experience. The specie reserves of Illinois free banks against banknotes in circulation and deposits issued were, on average, 11 and 43 percent respectively.

In order to supplement specie reserves, the free banks of Illinois invested in the banknotes of the other banks. Notes of other banks in a bank's vault could be considered as near liquid. They could be cashed into specie as there existed markets for banknotes in New York, Philadelphia, and St. Louis. Investment in the notes of other banks minimized the need of excess specie reserves arising from note circulation. Investment in banknotes was, on average, seven and a half percent of the total circulation plus deposits. This procedure provided mutual insurance and reinforced credibility (Calomiris and Kahn 1990).

Illinois free banks were also found to have maintained investments with other banks. These investments were in the form of keeping deposits with other banks and buying the bills of other banks. Small bankers and county bankers traditionally maintained correspondent funds with the large and city banks so that whenever a small bank or a county bank was in need of extra specie, they could turn on them. The earnings from these investments were not the principal goal of the bank. It minimized specie needs and provided additional sources of reserves and thus ensured safety. Deposits with other banks and debt owing to banks other than loans and discount constituted about 30 percent of the total assets. Investment in others' banknotes plus bankers' deposit constituted about 43.8 percent of Illinois circulation and deposits.

The free banks of Illinois were found to have held other types of assets in their portfolios. In descending order of liquidity, the assets were compulsory investments in the U.S. and the states bonds and loans and discounts. The investments in

loans and discounts and government securities were a bank's principal earning assets.

Investments in the long term government bonds constituted a significant portion of the total assets. It amounted to 100 percent of the note liabilities and about 48 percent of the total assets. This high percentage resulted from a number of reasons. *First*, the U.S. and States bonds were relatively the safest asset to invest even though there were fluctuations of bond prices. *Second*, there was a ready market for bonds. Banks could easily sell their excess bonds without substantial loss in value. However, the securities deposited as a collateral to support banknotes were not allowed to be sold even when a dollar banknote was protested. *Third*, the rate of interest earned on bonds was relatively high and risk free. The default risk of government securities was almost nil.

The most unusual characteristic of bond investment was that although the free banks of Illinois were holding a large quantity of assets in their portfolio, *they were not permitted to use this asset/ resource to meet any emergency of the hank*. They could be withdrawn and used only when the banks had met all obligations of the liability holders. This leads us into a central contention—free banks were virtually 100 percent reserve banks; their failure was a failure of regulation.

Loans and discounts were an important asset, accounting for about seven percent of the portfolio of the Illinois free banks. The banks could easily meet the liquidity needs by calling in some loans. Since they were short-term investments, the costs of converting them into specie were presumably not high. While they were assured of easily obtainable ready cash with less transaction cost, these investments were a good source of earnings when bills were bought and discounted.

Thus the Illinois free banks' supply of liquid reserves was defined as the combination of specie and demand claims on specie consisting of notes of the other banks, correspondent funds (which each bank held with other banks). In addition to these reserves, banks held a significant portion of their assets in loans, bills discounted, and other assets. Some of these assets were quite close to liquidity because any asset which could be converted into specie quickly and at a low cost could have potential ability to meet banks' liquidity. Although secondary markets for bank loans did not exit, they themselves were short-term ranging from three to twelve months (Economopoulos 1990). Moreover, these loans could be called in at short notice.

Therefore, the free bankers could match the maturity of loan portfolio with the anticipated liquidity needs of the banks.

Comparison of Ratios and Evidence for Illinois

The study of the aggregate balance sheet revealed that the free banks of Illinois held large quantities of liquid, near liquid, and illiquid asset in their portfolios to support the total liabilities.

Table 1
A Summary of Comparative Figure of Ratios

Ratios	Illinois	Ohio
Capital Circulation + Deposit	.75	.48
Capital Circulation	.97	.69
Specie Circulation + Deposit	.097	.15
Others' Notes + Bankers' Deposit Circulation + Deposit	.34	.438
Capital Assets	.40	.28
Notes Circulated Deposits	.066	1.9

Whether these reserves were adequate for the honest portfolio management, given the structure of risk and return of their portfolios and Illinois economic condition, has been studied with reference to those of the Ohio banking system of the same period. The Ohio free banking system was chosen because the Ohio banking is unquestionably acclaimed as one of the most successful of the period. The various financial ratios like capital to deposit, capital to major liability, capital to asset, specie to notes, and specie to major liabilities provide deep insight into the operation of the bank's portfolio management.

These ratios are used to measure the risk-return attitude of Illinois free bankers. The comparison of these variables between the Ohio and Illinois banking system would suggest whether or to what extent the behavior of the Illinois bankers was fraudulent. A summary of these ratios are presented in Table 1. The detailed year-by-year figures for these ratios would be available upon request.

Analysis and Interpretation of the Ratios

Capital Ratios

The total capital of a bank in itself has little meaning. However, capital can be compared more significantly to other items of the balance sheet. Capital liability ratio is an important index of measuring a banker's preference for risk and return. The ratio of paid up capital to total liabilities provides a good measure of the proportion of bank funds not subject to sudden and unexpected withdrawal. Because of the stability of equity fund it was assumed that the higher the capitalization rate (i.e., the high capital-liability ratio) the lower the risk faced by a bank and vice-versa, *ceteris paribus*. The higher ratio of paid up capital to liabilities of a bank provides more protection to the liability holders than a bank with a small capital-liability ratio. Bank capital was intended to protect liability holders. Therefore, a risk-averse manager would hold smaller specie reserve if the capitalization rate was high. Hilderlith and Rockoff (1988) found the validity of this hypothesis for the banks of Boston, New York and Philadelphia.

The comparison of capital-liability ratio of the Illinois and Ohio banks presented in Table 1 shows that Illinois bankers maintained a significantly higher amount of paid up capital than that of Ohio bankers. The ratio of capital to major liabilities in Illinois and Ohio was, on average, .75 and .48 respectively. This high capitalization rate suggests that the bankers in Illinois were risk averse and their portfolio management was not fraudulent. Instead it was a product of careful decision making. They were not established to cheat depositors and noteholders.

Capital to banknote Ratio

Historically, regulatory authorities required banks to have total capital equal to about one-tenth of the total deposits to help protect the depositors. During the free-banking period, the main concern of the bankers was not the depositors but the noteholders. Because a bank's failure to redeem these notes on demand could close a bank. Therefore, the high ratio of capital to banknotes would reflect a bank's genuine concern for the noteholders. The comparative ratio of capital to circulation of Illinois and Ohio banks presented in Table 1 was .97 and .69 respectively. The higher ratio of capital to circulation would

suggest that Illinois bankers did care for their liability holders and were risk averse. Capital represented those funds that a bank could lose without endangering its ability to pay its creditors. Compared to present time ten percent rule, Illinois bankers followed about 100 percent rule to protect their liability holders. So, the allegation of Illinois bankers' fraudulent behavior seemed unfair.

Specie Ratio

High ratio of specie to major liabilities, i.e., banknote plus deposits would indicate higher liquidity, therefore, lower liquidity risk exposure than a low ratio of specie to liabilities. The comparative specie ratios of the Illinois free banks and the Ohio free banks presented in Table 1 show that Illinois and Ohio bankers maintained specie reserves, on average, ten percent and fifteen percent respectively against their banknotes and deposits. Thus, it appears that the Ohio free banks' portfolios maintained five percent more vault cash/liquid assets than those of Illinois free banks. This would not mean that Illinois free banks were less efficient or fraudulent minded and that they would be exposed to high risk. It is consistent with the sound banking practice of the time. Deposits were a more volatile and riskier component of liabilities than notes (Myers 1931). Since Illinois banks issued more notes than deposits compared to those of Ohio banks it was consistent for Illinois bankers to hold a smaller proportion of specie reserves than that of Ohio banks. Hilderlith and Rockoff's study (1973) already supported the hypothesis that banks issuing more notes than deposits would hold less specie reserves in its vault.

The high capitalization rate and the high near liquid reserves of Illinois bankers would justify lower specie reserve in their portfolio. They held a significant portion of their assets locked in bond reserves. Moreover, Illinois free banks held a higher percentage of near liquid assets like notes of other banks plus bankers' deposits in their portfolio than that of Ohio free banks. The comparative ratio of notes from other banks and bankers' deposits to circulation plus deposits in Illinois and Ohio was 44 percent and 34 percent respectively. On the other hand, the five percent higher specie reserve by the Ohio free bankers would be expected because the Ohio banks held less capital against their circulation than the free banks of Illinois. Deposits of the Ohio banks as a source of bank funds were larger than

notes in circulation. The deposits, as noted earlier, were more risky than notes.

Circulation Deposit Ration

A bank relying heavily on deposit as a source of bank's funds would be expected to bear greater risk than the bank relying on notes as a source of bank funds. Notes were issued to support loans and the loans had many stringent conditions attached to them. For example, borrowers receiving loans could not redeem these notes within some specified time. Banks preferred to issue notes for the purchase of long distance goods and services (Golembe 1978). Banks discouraged loans by charging a high rate of interest if the note supporting loans were expected to return soon. In such loan markets, maintaining a high ratio of circulation to deposit would mean that the banker felt less at risk than the banker holding low circulation to deposit ration. Consequently, a bank with high ratio of circulation to deposit would hold less specie and more secondary reserves like notes of other banks, banker's deposits, etc. This policy would ensure safety as well as profitability. The comparative ratio of circulation to deposit of Illinois and Ohio banking system presented in Table 1 was .066 and 1.9 respectively. Since Illinois bankers were maintaining high ratio of circulation to deposit, it was expected that they would hold less specie and more secondary reserves which was reflected in the high ratio of other banks' notes and bankers' deposits to major liabilities (i.e., circulation and deposit). The ratio of secondary reserves in Illinois was .340 as opposed to .438 in Ohio shown in Table 1.

Structural Comparison Between the two Banking Systems

There have been some important structural differences between the Ohio and the Illinois free banking system.

In Illinois, there was only one type of bank, the free bank, in operation during the period under consideration. Consequently, they had no experienced model bank in the state to follow with respect to their lending and specie reserve policies. With the closing of the State Bank of Illinois in 1842, there was no other bank in the state than the Free Bank.

In Ohio, there had been three types of banks simultaneously in operation. They were: (1) branches of the Ohio State Bank, (2) Independent Bank and (3) Free Bank. Among these types of

banks, the Ohio state banking system was experienced and constituted the largest share in the market in terms of bank number and bank capital in Ohio. The number of free banks and their total bank capital never exceeded one-third of the total Ohio State banks and their capital. Tables II and III substantiate our claim.

Since the Ohio State banking system had long been in operation prior to Ohio free banking, the Ohio Free Bank might have used them as their model in their banking practices. Consequently, the Ohio free banks as newcomer followed cautious banking practices with respect to specie reserve and lending policies while competing with the established banking firms.

Table 2
The Types of Banks and Their Total Number

Year	Independent Bank	Ohio State Bank	Free Bank
1853	3	44	13
1854	12	43	14
1856	12	42	13
1858	9	36	10
1858, Nov	9	36	11
1861	7	36	12
1862	7	36	12
1863	5	36	10

Numerous Free Bank Failures?

It was alleged that there were numerous free bank failures in Illinois. The view that there were numerous bank failures and that banks were in existence only for a short while during the free banking period were examined by Rolnick and Weber (1984) in four states: Indiana, New York, Michigan, and Minnesota, to test Rockoff's par valuation hypothesis (Rockoff 1974) and its impact on the bank's business life. This paper examines the bank failure rate and average bank life for Illinois free-banking period.

Bank failure and bank closing are not synonymous. When a bank paid all of its liabilities and then closed the business, it was

closing of a bank at par. The closing of bank at par is not a failure of bank. It was a voluntary closing. A bank just like any other business might have closed banking firms voluntarily for different reasons. The closing of a bank at par involved no losses to the liability holders. So, the bank which closed at par could not be considered a failure.

A bank is said to have failed when it was closed below par. If the note-holders of a bank were not paid in full, then the closing of bank was considered a failure because the bank was ordered to be closed; it was an involuntary closing. Taking this criteria into consideration, Samad's study (1991) reveals that only two banks failed before 1861 although a total of 25 banks were closed. The failure rate is only 1.5 percent in nine years. This 1.5 percent failure rate (or two failed banks) during 1852–1860 speaks volumes for it does not mean there were numerous bank failures nor does it mean an unstable banking system. Free-bank failures however jumped up in 1861 when 94 banks closed. Of these, 89 banks were found to have failed. The failure rate in a single year, the first year of the Civil War, was abnormally high in Illinois. The failure rate was almost 95 percent in a single year. The large bank failure in a single abnormal year could not decide whether the free banking system of Illinois was a failure or success. If the failure rate of 1861 is ignored, the free-banking system is a relatively stable system. The total number of banks failing during the period 1852–1861 and 1862–1864 was only three although a total of 43 banks closed during the same period. After the initial shock of the Civil War, bank failures almost ceased to exist in Illinois. One bank was found to have failed between 1862 and 1863.

Table 3
Capital and Asset Structure of Free Banks vs. Ohio State Bank

Year	Ratio	Free Banks	Ohio State Bank
1853	Circulation/ specie	2.38	4.36
	Liability/capital	4.50	4.00
1858	Circulation/ specie	3.35	3.72

Liability/capital	4.12	3.14	
1861	Circulation/ specie	3.38	3.71
Liability/capital	3.29	5.09	
1863	Circulation/ specie	1.47	3.44
Liability/capital	5.88	4.45	

The issue of the free bank's numerous failures and short existence of operation explained by Rockoff is carefully examined in Illinois. According to Rockoff, it was profitable for a bank to close its business permanently when market value of the bonds backing the notes as collateral was less than bond's par value (face value) because notes were issued to the amount of the face value of the bonds. Thus, as soon as the circulation of notes was complete, banks found it profitable to close the business. The life span of the banks in such a situation was found to have been very short—"maybe a month or two" (Rolnick and Weber 1982).

Rolnick and Weber's method is used for calculating a bank's average life. A bank's business life is counted as the difference between the date a bank was closed and the date the bank was opened for business. Using this technique, the estimated average life span of Illinois free banks does not substantiate the conventional view that Illinois free banks opened their business just for a short while to circulate their notes. This study finds that the average life span of an Illinois free bank was around three years and eight months. Only 20 or 14 percent of the banks were in operation for a period of less than one year; 29 percent operated between one and two years; 13 percent operated between two to three years; and the remaining 57 percent of the banks were in business for a period of more than three years. This is somewhat better than that noted by Economopoulos (1988).

This estimate of the average bank's life provided in this study is conservative. Each bank's opening date is counted from the date the bank's name was found to have first appeared in the condition report of the Bank Commissioner. When a bank's name was not found in the current condition report, then the date of the previous condition report showing the bank's name was considered as the closing date for that bank.

In such an estimate there is downward bias in the bank's average life span. Many banks could have been in operation for

one to six months before they were found to have appeared in the bank's condition report. Similarly, many banks could have been in operation for a few more months before they had been reported in the next condition report. As such, my estimate of Illinois free banks' average years of operation is downward biased in both respects.

So, the allegation of instability of the Illinois free banks characterized by numerous bank failures and the short existence of banks' business operation is an exaggeration.

The allegation of banks' unfair practices by locating their offices in "an unknown and inaccessible place" was also studied. Only four banks out of 141 were found to have no exact place of location. These banks were: the Bank of Identity, the Bank of Kewanee, the Eagle Bank of Illinois, and Canal Bank. Their location could not be found in the 7th and 8th U.S. census. This meant that these banks were either fictitious or they were in the remote countryside where population figures were too low to warrant census attention. The rest of the banks of Illinois (98 percent) were found to have been established in the county seats and in important townships. Judged against the location of population, our study shows a large majority of the banks were in communities of more than 1,000 people (Quinn and Samad 1991).

Thus, a generalized allegation of free banks' involvement in fraudulent practices is unjust and unfair.[1]

Conclusions

According to aggregate balance sheets, the free banks of Illinois held wide varieties of assets in their portfolios and the value of these assets were larger than those of their liabilities. Therefore, the banks were never insolvent. The banks might have become temporarily illiquid but they were found to have held huge amounts of other resources in their portfolios. Whenever the value of their liabilities were exceeding the value of their assets, banks were issued margin calls or required to retire some of their notes from circulation. Their portfolio management was, thus, not intended to cheat the public. The aggregate balance sheet could not provide any conclusive evidence in support of the conventional view that the portfolio management of the free-banking system was fraudulent. It does not, however, rule out the possibility of irresponsible banking. There might have been some banks that were established with the fraudulent intention

of circulating notes but not redeeming them.

The literature on free banking has laid inadequate emphasis on the financial hunger that characterized many states and which forms an appropriate background against which the responsibility of banking must be judged. The Bank of the State of Missouri wished to set an example of financial integrity in 1838 by refusing to issue its notes unless it covered them securely. Such was the demand for finance that a committee of 11 prominent citizens offered to endorse paper from the banks in Illinois and thus guarantee the Missouri Bank from loss. The Missouri Bank refused. In disgust, the merchants and traders of St. Louis moved increasingly to private banks and insurance companies (Hubbard and Davids, p. 60).

The center of economic activity moved from St. Louis to Chicago in the period 1840–1860 (see the maps in Cronon, *Nature's Metropolis*, chap. 6), so we can presume the pressure on Illinois banks to be just as great. That the Illinois banks were not principally, or even largely, wildcat banks was adequately shown by Economopoulos earlier by looking at location and at bond prices. (The only possible weakness being the focus on Tennessee bond prices, when Missouri bond prices would have been more relevant.) The Illinois banks had to issue notes at the market price of their bonds—thus providing for 100 percent reserve. That regulation was at least somewhat responsible for the failures of these banks, and was evidenced by the bank commissioners, who protested the notes not the noteholders and from a defective scheme whereby Illinois bonds, which everyone would be most cognizant of, were held at only 80 percent of their value while the bonds of other states could be held at full value. A close look at the balance sheets shows most banks did hold full reserves and therefore can be said to have been free and responsible banks.[2]

Appendix
Statement of the Condition of the Banks of the State of Illinois, on Monday, April 3, 1854

Resources

Total public stocks at which they were received by the auditor	$2,475,741.62
Amount paid over the value at which they were received by the	$196,162.13

auditor	
Real estate	$3,158.22
Notes of the other bank on hand	$385,339.45
Amount of debts owing to the associations other than loans and discounts	$1,368,203.68
Suspended debt Specie on hand	$565,152.04
Loans and discounts	$316,641.76
Deposited with other banks	$878,612.58
Expense accounts	$4,874.97
Checks, drafts, and other cash items	$63,892.41
Total resources	$6,257,778.86
Liabilities	
Capital stock paid in and invested according to law	$2,513,790.17
Amount of debts owing by the association other than depositors	$294,034.50
Amount due to the depositors	$1,286,102.25
Notes or bills in circulation	$2,283,526.00
Profit and loss account	$71,787.00
Total liabilities	$6,449,239.92

Source: U. S. House of Representatives, Executive Documents 33–2.

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[1] The approaching Civil War caused panicky noteholders to demand redemption and cause the price of Southern bonds to decline by 55 percent between 1860 and 1861. This contrasts with drops of 13 percent during the panic of 1854 and 24 percent during the panic of 1857. As Southern bonds were a major source of collateral for Illinois free banks, the subsequent failures became more understandable. A detailed study of failure due to the Civil War is underway and will be reported subsequently.

[2] An anonymous referee pointed out that this outcome is consistent with the prediction of Ludwig von Mises, *Human Action* 3rd ed. (Chicago: Henry Regnery, 1966), pp. 444–48.

Hayek, Business Cycles and Fractional Reserve Banking: Continuing the De-Homogenization Process

Walter Block and Kenneth M. Garschina

Science sinks or swims based on the quality of the distinctions it makes, and social science is no exception to this general rule. It is as important to make accurate differentiations in the history of economic thought as it is in any other branch of this discipline.

In this regard, the accomplishments, writings, and analytic apparatus of Ludwig von Mises and his pupil and friend, F. A. von Hayek, have been widely viewed as all but indistinguishable. And this holds true not only within the profession as a whole, but also among economists associated with the Austrian or praxeological school.

There is good reason, at least at first glance, for such a conflation. Both economists shared, or at least appear to share, a philosophical outlook, and a methodology; their views on socialism, government regulation of the economy, the free society, and the causes of the business cycle, were in many ways similar. But there were also some sharp and important differences between them, which are rather technical. Perhaps this is one reason why they have been little appreciated. But these divergences are basic, with implications for the entire corpus of Austrian economics, and, indeed, economics in general. It is therefore all the more important to distinguish between the views of these two scholars.

Salerno forcefully makes the point that the unrecognized incompatibility between Mises and Hayek is of far more than mere antiquarian interest:

> Unfortunately, the majority of those who currently regard themselves as “Austrian economists” have failed to recognize the considerable differences between these two paradigms. And because Mises was the main influence on Hayek’s early writings on

> business cycle theory and on socialist calculation, the most important manifestation of this failure is the tendency to attribute to Mises positions originated by Hayek or independently developed by those working within the Hayekian paradigm. This tendency is reinforced by what may be called the "Whig presumption," still inexplicably prevailing among many Austrians despite the publication of Thomas Kuhn's book three decades ago, that since Hayek "came after" Mises he must have incorporated in his own work all that was worthwhile in his predecessor's. The result is that attention has been deflected from the Misesian paradigm, and those seeking to deepen and extend it have found it increasingly difficult to gain recognition for their own efforts or to channel the interests and efforts of younger Austrian scholars into the same endeavor. There thus currently exists a pressing need, especially for Misesians, to undertake the task of a courageous and thoroughgoing doctrinal dehomogenization of Hayek and Mises. (Salerno 1993, pp. 115, 116)

It is not sufficient to show only that the perspectives of Mises and Hayek are not fully reconcilable; and that this fact is not widely appreciated. Once this is conceded, the question naturally arises, Which is correct and which is not? Therefore, it is important to follow Salerno's lead even further, and take a stand on that issue as well.

There is a small but ever growing literature which might be called "Hayek revisionism." It takes the view that the analysis of the teacher is very distinct from that of the student, and vastly preferable. Hayek, a 1974 Nobel Prize winner in economics, is widely known as a radical advocate of the Austrian or free enterprise philosophy. And to a certain extent this reputation is well deserved. After all, Hayek (1944, 1989) are classic critiques of socialism and central planning, Hayek (1960, 1973) defend the rule of law, Hayek (1978) shows the flaws in "indicative" or "market" planning, and many of his other books and articles demonstrate the beneficial workings of the market (1948, 1954, 1967, 1981). Of late, however, scholars have shown that some of his most basic writings cannot be reconciled with a thorough going adherence to praxeological analysis (Salerno 1993) and

economic freedom (Rothbard 1982).

Even within the corpus of Hayek's own work a distinction may be made. A scholar who distinguishes two different strains of thinking within Hayek's own writing was Hutchison (1981). He labels the early publications as Hayek I (before 1936) and the later ones as Hayek II (1937 and thereafter). Of the earlier period Hutchison (1981, p. 211) states: "Affinities with the ideas of Austrian predecessors, notably with those of his 'mentor' Mises, are apparent." In contrast, the first publication of the latter period (Hayek 1937),[1] Hutchison comments:

> It certainly marks a vital turning point, or even U-turn, in Hayek's methodological ideas, *and ought to be, but has not been recognized as marking a fundamental shift* . . . The main insights of this article are quite incompatible . . . with the methodological ideas in his previous writings. (1981, p. 215; emphasis in the original).

The new dispensation in Hayek had mainly to do with a shift from praxeological (e.g., Misesian) methodology to that based on logical positivism (e.g., Popper), and from an emphasis on appraisement to one of lack of full information regarding questions of central planning and socialism (Salerno 1993). This is not to say that in the earlier period Hayek was indistinguishable from Mises, nor that the latter period constituted a total break. There were differences before, and similarities afterward. But it is our contention that even though Hayek I was preferable to Hayek II, the errors in the former are still well worth exploring.

Following in Hutchison's footsteps on this research is Salerno (1993). Salerno has shown that as the years went by, and Hayek moved from his Hayek I position to his Hayek II views, he pulled further and further away from the uncompromising praxeological and free market analysis of his mentor Ludwig von Mises (1963); that whereas Hayek I was reasonably close to Mises in many ways, Hayek II began resembling him in philosophical outlook less and less.

In the view of Salerno (1993),[2] there is not one Austrian strand emanating from Menger (1950), the founder of this School, but rather two. The first is transmitted to us by Böhm-Bawerk (1959) and Mises (1912, 1957, 1966, 1981); the second comes to us courtesy of Wieser (1967) and his follower Hayek. Salerno's contention, and our own, is that the first strand is

preferable to the second (1993, especially footnotes 3 and 4). As well, and perhaps of even greater importance, Salerno shows that even the relatively preferable version, Hayek I, is not without its flaws. We shall try to show several of them: business cycles, fractional reserve banking, governmental growth enhancement, and 100 percent money.

Business Cycles

The majority of contemporary viewpoints within the economics profession favor a strong role for the state as necessary to combat the business cycle.[3] With regard to the problem of booms and busts in particular, it is the consensus among economists (Frey et. al., 1984; Block and Walker 1988) that the market, uncontrolled by central authority, will continually veer into either unemployment or inflation.

In contrast, it is the Austrian contention that these problems are not "natural" results of the market system; on the contrary, they are in large part created by interventionistic acts on the part of the government in the first place. The public sector, in this view, is the problem, not the solution.

Hayek (1931) is clearly part of Hayek I. And not only that: it is also part of the Hayek I contribution which is not at all problematic. In it, he makes the point that our inability to tame market instability is not due to deficient economic acumen on the part of members of the private sector. Rather, it comes about because of the interference and regulation of credit markets by the state. Specifically, this follows from credit expansion, which drives interest rates down below the levels which would otherwise result. This, in turn, leads entrepreneurs to mistakenly invest in the higher orders of production. But Hayek is careful to point out that the error is only from the long term point of view: in the immediate run, placing money in heavy industry is fully justified by the now (artificially) lower rates of interest.

Hayek (1931) leans heavily on the work of Mises (1912, 1966); his, like his mentor's, is a malinvestment theory of depressions: these cycles come about not because of too much[4] investment, nor yet because of too little. For all that can be known, exactly the "right amount" of investment may be undertaken. But because it enters too high in the structure of production, compared with where it would have gone had businessmen not been subsidized by low interest rates, the seeds of future economic destruction are sown. Moreover, in the

Misesian tradition, Hayek (1931) makes important contributions of his own. For one thing, the now famous[5] "Hayekian triangles" owe their appearance to this work.

If Hayek (1931) was a part of the Misesian Hayek I, then Hayek (1933) would have to be counted as an aspect of the non- or anti-Misesian[6] Hayek I. In this discussion on cyclical fluctuations, he denies that banks are wholly or even partially responsible for the nature of the recurring trade cycle. He contends that these financial institutions have never been prohibited from holding fractional reserves and therefore should not be held responsible for any of the repercussions. We flow, seemingly endlessly, from periods of prosperity to periods of struggle and recuperation, but Hayek labels it "nonsensical" to blame banks or to hold any other party "guilty" for the continuous boom-and-bust nature of our economic cycle. Hayek states:

> we can also see how nonsensical it is to formulate the question of the causation of cyclical fluctuations in terms of "guilt," and to single out, e.g., the banks as those "guilty" of causing fluctuations in economic development. Nobody has ever asked them to pursue a policy other than that which, as we have seen, gives rise to cyclical fluctuation, seeing that the latter originate not from their policy but from the very nature of the modern organization of credit. (Hayek 1933, p. 189)

Now this is more than just passing curiosity. If true, it would be, perhaps, the first case on record in all of recorded economic history, where an industry took no interest whatsoever in the regulations pertaining to it, nor in proscribing competition against extant members.

On the face of it, it would be as if the taxi industry were completely unconcerned with legislation that limited the participation of gypsy cabs (Williams 1982, chap. 6), or as if the American Medical Association were totally uninvolved in precluding the entry of new doctors into that profession (Friedman 1962, chap. 9; Hamowy 1984). In perhaps the most famous statement in all of economics, Adam Smith warned that:

> People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the

> public, or in some contrivance to raise prices. (1776, vol. 1, bk. 1, chap. 2)

According to the view of Hayek we are now considering, bankers, of all people, would appear to be an exception to that general rule.

Fortunately, we need not rely on theoretical public choice (Buchanan and Tullock 1971; Buchanan, Tollison, and Tullock 1980) and realistic historical investigation (Kolko 1963) to show that Hayek's belief is without merit. There is also a plethora of empirical examples which can serve as a refutation of the banker-as-innocent hypothesis.

For example, Paul and Lehrman note that

> America's bankers had long chafed to cartelize the banking system still further. . . . The growing consensus [in the nineteenth century], then, was to redirect the banking system by establishing, at long last, a central bank. The central bank would have an absolute monopoly of the note issue, and reserve requirements would then ensure a multilayered pyramiding on top of these central bank notes, which could bail out banks in trouble, and, moreover, could inflate the currency in a smooth, controlled, and uniform manner throughout the nation.[7] (Paul and Lehrman 1982, pp. 119–20)

There is another grave problem with Hayek's 1933 analysis. He believes that the banks are not "guilty" of causing business cycles *also* because he thinks that in the early stages the "natural rate of interest" or profit on the market increases, and that the banks are not astute enough to realize it, so that they only pull the loan rate of interest below the natural rate, that is, by not raising their loan rates fast enough to match changes in the natural rate. The difficulty with this is that it misconceives the Misesian (1912) insight. The problem is *not* one of omission, rather it is one of commission; it is not that the banks are too passive and ignorant about finding the right loan rate to match the natural rate. Instead, it is that they actively *expand credit* beyond the cash in their vaults, thereby *pushing* the loan rate below the natural rate. In short, the Misesian view is that the banks don't have to search for the natural rate in order to avoid generating the business cycle; all they have to do is not expand credit beyond their cash holdings. This is surely a much easier

task. The banks' insistence on expanding credit generates the business cycle, and makes them responsible and thus "guilty" as charged.[8]

Fractional Reserve Banking

But Hayek is not content to exonerate bankers as embodiments of free enterprise virtue. He goes on to offer a defense for their anti-market activities (the harm of which he has just finished denying). Hayek maintains:

> So long as we make use of bank credit as a means of furthering economic development we shall have to put up with the resulting trade cycles. They are, in a sense, the price we pay for a speed of development exceeding that which people would voluntarily make possible through their savings, and which therefore has to be extorted from them. (1933, pp. 189–90)

During the course of his discussion, Hayek focuses on the structure of our current monetary organization of credit and upon the inherent flaws in this structure that create the cycle. He is correct in identifying fractional reserve banking in particular as a major source of disruption to economic welfare, but then fails to label the state's utilization of this system as detrimental to overall growth.

The most glaring manner in which government has impeded the natural workings of the free market lies with its ability to control the volume of money. Hayek made this the basis of his Misesian-based (1931) theory of cyclical fluctuations. With the introduction of money to a society, control over the economy can be shifted from the individual's natural tendency to produce and trade to one where government disturbs and hampers the production process through its manipulation of the money supply.

Changes in the volume of money by the government can be effected in two ways: alteration of note circulation by central banks and by "creation" of deposits in other banks. Hayek correctly argues that it is the ability of independent banks to "create money" that is harmful to the economy. But these financial institutions are able to increase the money supply due to the system of fractional reserve banking. For example, if a deposit is made of one hundred dollars, the bank is only required

to hold “in reserve” or “on hand” a small fraction of this amount. The rest can be granted as credit to customers who will inevitably follow the same deposit process with their newly acquired funds. In this way, in a decentralized system, money travels from bank to bank, multiplying each time it is lent out. And the original depositor, of course, is still able to draw on the funds entrusted to the bank on demand. As the process continues, the volume of money increases, lowering the money rate of interest below the natural rate, which Hayek (1933, p. 147) defines as the rate “at which the demand for and the supply of savings are equal.”

Rothbard (1975, p. 19) agrees with Hayek on his thesis with regard to the causes of cyclical fluctuations, and refers to a “boom” period as one of misinvestment created by the government sanctioned credit system through its control of the money rate of interest. With banks offering credit at an artificially low level of interest, capitalists invest in production processes that must inevitably be abandoned when the banks eventually curb the amount of credit being offered because of increasing cash requirements or a rise in the discount rate (Hayek 1933, p. 175). As soon as the banks cease to increase the volume of money in circulation, the interest rate at which credit is offered will rise to the natural level and leave unfinished the investments previously made possible by increased levels of credit. The freedom given to the banks by the state to control the volume of money and interest rates initiates production that cannot possibly be completed. The periods that we know as “crisis” or “depression,” or, in the most recent euphemism, “recession,” are in fact the time needed for the process of abandoning or reallocating the investment mistakes of the boom period.

Despite his accuracy in identifying the source of fluctuations, Hayek suggests that we must continue to use fractional reserve banking in order to spread the development of technical and commercial knowledge. This, despite the price paid in economic disruption during every bust period. He states:

> And even if it is a mistake—as the recurrence of the crises would demonstrate—to suppose that we can, in this way, overcome all obstacles standing in the way of progress, it is at least conceivable that the non-economic factors of progress, such as technical and commercial knowledge, are thereby benefited

> in a way which we should be reluctant to forego.[9] (Hayek 1933, p. 190)

He contends that extension of credit, even though it results in a recurring crisis, is necessary in order to enhance man's ability to discover and produce things not possible from his own personal savings. Hayek views the "benefit" derived from providing credit to those not in effect credit worthy as outweighing the consequences of decimating the entire economy every few years. But this is mistaken. It is in fact an undermining of Hayek's own work and defeats the logic of his entire business cycle discussion.

Contrary to Hayek,[10] in order to enhance economic welfare, any prospective technological or commercial advancement should be funded based upon its own merits, and not depend upon an artificially low money rate of interest. An economy void of fractional reserve banking would be less able to overextend itself through excess credit and more likely to produce an optimal amount of technical and commercial services. These businesses may not come to fruition as quickly and powerfully as they would were they backed by artificially extended credit, but the economic foundation predicated upon voluntary choice will be stronger. The percentage of failures, e.g., wasted resources, will be therefore reduced. Moreover, an economy that sustains constant growth will outproduce one which sacrifices an undetermined number of years to crisis in order to artificially encourage growth.

Nor is this a matter of mere cost-benefit analysis. The point here is not that of the two values, economic stability and technical progress, we hold that the former necessarily outweighs the latter. On the contrary, given the impermissibility of interpersonal comparisons of utility (Rothbard 1977), our view is that it is impossible, *a priori*, to determine which one is more important. Why, then, our opposition to Hayek's preference for technical progress *vis-à-vis* stability?[11] It is because the burden of proof is on him who would upset the natural order of the laissez-faire economic system, and Hayek has not even seen this as a challenge, let alone attempted to overcome it.

In order to see this point more clearly, suppose that someone, call him Mr. H, had contended that war enhances scientific innovation (radar, better planes, rockets, improved medical techniques learned on the battlefield). And that, further, the value of these improvements was greater than the loss due to

people being killed in war. One possible response would be based on a cost benefit analysis. Here, we might make the contrary claim that no deaths due to battle impose more of a loss on humanity than the inventions thereby conferred gain for us. But interpersonal comparison of utility considerations render such a tack invalid. Instead, we would say that the natural order of society is peace, and that the intellectual burden of proof rests on those such as Mr. H who claim, somewhat paradoxically, that the human condition can be improved by fomenting armed hostilities. It is clear that this burden has not been upheld, indeed, nor can it be.

Governmental Growth Enhancement

Hayek (1933, p. 191) also speaks about the "utilization of new inventions and the realization of new combinations." He claims that they would be made more difficult in the absence of cyclical fluctuations, and that the psychological incentive towards progress would be retarded.[12] But the very opposite is true. Namely, each year many businesses are not launched simply because of fear of crisis. Capitalists would be more inclined to utilize venture funds if relatively constant growth became an expected reality, for potential investors would not have to continually fear a business-crippling recession.[13]

More radically, Hayek's conception of an increased technological or commercial rate of progress is flawed in and of itself. By offering credit to those not deemed worthy of it by the market (Hazlitt 1946, pp. 30–40), we push ourselves beyond the scale of development for which the economy is ready. There is an optimal amount of forward movement that any economy can accommodate. To overshoot that appropriate level is to attempt to advance to a degree unmanageable by society and ultimately by the individual. There exists a natural order for the structure of production, whether in the realm of physical output or of scientific and technical ideas. If so, any compulsory attempt to exceed it is logically doomed to failure. At present, lending institutions are permitted to alter the path of growth through extension of credit. This not only gives impetus to the business cycle, it also cannot succeed in its self-avowed goal of increasing the rate of technical progress.

Kirzner speaks of this phenomenon in terms of:

> an intertemporal equilibrium. Plans made today

> must fit not only with plans made by others today [intra-temporal equilibrium], but also with plans made in the past and other plans to be made in the future. A state of equilibrium will not exist wherever any plan being made at any date fails to dovetail with other relevant plans of whatever date in the entire system being considered. A man who erects a shoe factory and who discovers in later periods that shoe leather is unobtainable, or that consumers no longer wish to buy shoes, made his decision in ignorance of the plans of others on which his own depended. A man who educates himself in a profession for which later demand is lacking has made a plan based upon incorrectly anticipated plans of others. (Kirzner 1979, p. 112)

As Kirzner points out, it is indeed possible for entrepreneurs to act incompatibly with intertemporal equilibrium. When they do so in a market context, of course, they suffer the consequences, and, as a result, this sort of misallocation tends to be minimized.

However, as Hayek does not seem to appreciate, governments, too, can engage in intertemporal misallocation, and a paradigm case in point is an attempt on the part of the state to promote overoptimal economic and scientific development. At the outset, this sounds like a contradiction in terms. How, after all, is it possible to have *too much* economic growth? One possibility, furnished by Hayek himself, is governmental monetary policy which results in a below market rate of interest, which leads to basic investments which cannot be completed, e.g., the classical Austrian business cycle time misallocation of the structure of production (Rothbard 1975; Mises 1963; Hayek 1931).

Another example might well be President Nixon's "moon shot" of several decades ago. This was a "success" in that several taxpayers were indeed launched up to this celestial body, and made it back home all in one piece. But it is unlikely that this was an impetus to the overall goal of space exploration; it is more probable that it came too soon, before the complementary factors of production were in place. The point is, had the billions of dollars spent been used instead for research and development in fuels, rocketry, life support systems, human (scientific) capital, etc., it is entirely possible that the human race would have been,

by now, far ahead of where it actually is in this regard.

It is thus not a matter of weighing additional economic growth against the ravages of the business cycle. The latter is, of course, deleterious—not only to "children and other living things"—but to the entire economy. The former, however, is *also* a denigration of economic welfare, and cannot, therefore, be considered as a positive offset to the admittedly harmful boom and bust cycle.

There is another way to make this point. The Hayek I who supports fractional reserve banking and government interference with the market in order to spur "growth" is an economist who is in effect calling upon the central banking system to determine the evenly rotating economy's interest rate. That this cannot be done is not due merely to a lack of knowledge, a continual refrain in the Hayekian *oeuvre* (Salerno 1993). The problem is, fractional reserve banking must necessarily blunder into continual bouts of excessive money creation, and other forms of instability. To be sure, it is possible to expand credit beyond 100 percent of the gold stock, but this cannot be done for the goods and services in the economy at any given time. The attempt to do so is like trying to push down the water level in the bathtub: some of the water necessarily seeps out.

One-Hundred-Percent Money

Hayek's allegiance to the present fiduciary system is evident when he states that in holding deposits stable, banks would be reduced to "the role of brokers, trading in savings" (1933, p. 190). Rothbard (1991) offers in a slightly different context what is, in effect, a blunt rebuff to Hayek's support of the banks. In speaking hypothetically concerning the possibility of 100-percent reserve requirements, he argues that savings and deposit institutions could remain profitably in business simply by charging their customers for their services, for if they provide a useful product they would be paid for it just as consumers pay for traveler's checks. Rothbard adds:

> If they [the public] are not willing to pay the costs of the banking business as they pay the costs of other industries useful to them, then that would demonstrate the advantages of banking to have been highly overrated . . . there is no reason why banking should not take its chance in the free

market with every other industry. (1991, p. 27)

Hayek labels the concept of 100-percent reserve requirements as utopian in that not only will our economic progress made stagnate because of them, but bank money and notes would be eliminated and all deposits would remain fettered in savings accounts. Rothbard contends that with the elimination of fractional reserves, there will be a drop in the money supply, thus shortening credit, but that the banking industry would adjust and hold debentures of various lengths to offer as credit instead of demand deposits (1991, p. 23). In this manner, credit is potentially extended only to those who are deemed worthy of it at the market rate of interest. Since loans extended at an artificially low rate lead to an inevitable disruption of the growth process, the elimination[14] of fluctuations requires the abolition of this practice.

As Rothbard suggests, the banking industry as we know it would be altered dramatically in the event 100-percent reserves were required. However, its ability to grant credit will not be entirely curtailed. Only demand deposits, not time deposits, will be subjected to such requirements. More importantly, many banks have diversified into other markets such as corporate finance and various sales and trading functions. In fact, under the proposed system, the trading of debenture packaged securities could become quite profitable, similar to the field of mortgage-backed securities today.

In Rothbard's view of fractional reserve banking (1991, p. 21):

> issuing promises to pay on demand in excess of the amount on hand is simply fraud, and should be so considered by the legal system. For this means that a bank issues "fake" warehouse receipts—warehouse receipts, for example, for ounces of gold that do not actually exist in the vaults. This is legalized counterfeiting; this is the creation of money without the necessity for production, to compete for resources against those who have produced. . . . I believe that fractional reserve banking is disastrous both for the morality and for the fundamental bases and institutions of the market economy.

An objection that has been used against this perspective cites

the “fractional reserve parking lot.”[15] Here, an entrepreneur sells not the right to a parking space, as occurs in the ordinary situation, but only the right to a parking space subject to the condition that there is room in the lot for an additional automobile. The firm, then, is selling not a parking space, but in effect a lottery ticket for a parking space, where the probability of a “win” is the number of actual spaces on the premises divided by the number of such “rights” sold to the public. For example, if there are 100 parking stalls available, and the garage has sold 400 tickets, then, *ceteris paribus*, the buyer has a 25-percent chance of being accommodated when he wishes to avail himself of this service.

Now this sort of commercial arrangement, if it is conducted in an open and honest manner, is not fraudulent. It should therefore be legal. However, there is a disanalogy between this scheme and the fractional reserve system for money as currently practiced. At present, money placed in a bank is called a “demand” deposit, logically implying that it would be available, in full, whenever demanded, with a probability of certainty. If the “fractional reserve parking lot” were to be an accurate analogy to monetary practice, instead of being called a “demand” deposit, it should be called “purchasing a lottery ticket for money,” or some such. Further, in every other way—publicity, explicit contracts, etc.—banking procedures would have to be brought into line with parking lot practice. Then, and only then, could the charge of fraud be dropped. Under such conditions, there would still be the empirical question of whether or not anyone would purchase a “lottery ticket money deposit.”

This discussion should by now have made it clear that we are now very far removed from the system defended by Hayek. Yes, under certain hypothetical and narrowly stipulated conditions, something vaguely resembling the fractional reserve system defended by Hayek could be constructed so as to avoid the charge of fraud. It is certainly logically possible that someone, somewhere, might actually purchase such a ticket. But these implausible scenarios can by no means serve to justify the Hayekian analysis.

Like death and taxes, the business cycle has become invested with inevitability. With the advent of inflationary recession, something inconceivable under the Keynesian dispensation, the leaders of the economics profession are no longer so confident they can flatten out the peaks and the troughs.[16] In our view, however, the former level of optimism is (potentially) justified,

at least under the (admittedly politically unrealistic) assumption that government no longer generates the cycle through its destabilizing monetary policy. Under these conditions private malinvestment would undoubtedly occur, but it would result from poor entrepreneurial judgment, not centrally driven excess credit. Nor is there any reason to assume that these errors would "cluster" (Rothbard 1962), magnifying the errors of a few individuals. On the contrary, misallocation of funds, on the free market, would be dealt with in the same manner as all entrepreneurial error: with bankruptcy. But it is only with the initiation of 100-percent reserve requirements, and the overall separation of state and monetary institutions, that there is any hope of stamping out the business cycle.

Rothbard contends that:

> someone must propagate the truth in society, as opposed to what is politically expedient. If scholars and intellectuals fail to do so . . . all hope of social progress would then be gone, for no new ideas would ever be advanced nor effort expended to convince others of their validity. (1991, p. 43)

Hayek's initial (1931) efforts to clarify the causal connections of the business cycle were exemplary. But as we have seen, his (1933) publication—also part of Hayek I—was highly problematic. Here, then, is another bit of evidence showing not only the superiority of the Misesian over the Hayekian vision, but also indicating that although the Misesian Hayek I is preferable to the Popperian Hayek II, the former was by no means without fault.

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[1] For a good critique of this paper, see Selgin (1988, pp. 28, 29).

[2] Friedman (1991) made much the same point about the publications in the two epochs of this scholar's life, only in support of Hutchison, and in sharp contrast to Salerno, he praised Hayek II while denigrating Hayek I. Friedman's distinction, although based on methodological differences, mainly revolved around the psychological issue of "intolerance."

[3] For this view, which encompasses virtually all of the mainstream perspectives, see Friedman and Schwartz (1963), and Keynes (1936). For a reply to the latter, see Hoppe (1992).

[4] This is not an "over-investment" theory, as asserted by Hutchison (1981, p. 224, n. 1); rather, strictly speaking, it is a misallocation of investment theory. This is a fine point of distinction, as for the Austrians there is typically excessive investment in the boom phase of the cycle. But this is not logically necessary. The key point is that these funds go to orders of production which are too high (e.g., far removed in time from consumption) for sustainability, given the public's time preference rates. Although unusual, it is compatible with the praxeological theory of the cycle to contemplate *under* investment as a causal agent. As long as these funds are placed in improperly high orders of production, there can still be projects begun for which financing necessary for completion will not be forthcoming.

[5] If only within Austrian circles.

[6] A way of characterizing this, alternative to Hutchison's (1981), is that we date the onset of Hayek II earlier than Hayek (1937). For us, it occurred at least as early as Hayek (1933).

[7] For a critique of this initiative, see Hoppe (1993) and Rothbard (1975, 1994).

[8] The authors of this paper wish to thank Murray N. Rothbard for this insight.

[9] Hayek's reference is presumed by the present authors to be to "existing monetary organization" (1993, p. 187) of which fractional reserve banking is an integral part.

[10] That is, to the flawed part of Hayek I whom we have been citing.

[11] We assume, if only for the sake of argument, that Hayek is correct in his contention that there *is* a tradeoff. That is, that one can indeed gain more by destabilizing the economy in the form of new and better inventions than by allowing it to proceed freely and (relatively) steadily. Unfortunately, Hayek gives us no good reasons to suppose that this form of government intervention will promote innovativeness.

[12] Even if true, this does not satisfy the burden of proof incumbent on Hayek. For that to be achieved he would have to assert not only that booms and busts enhance economic innovativeness, but that it does so in a manner that *more than offsets* the attendant economic losses.

[13] We are of course in effect making the usual assumption about risk-avoiding preferences.

[14] More precisely, we should rather speak of a radical reduction, in the sense that government would no longer destabilize the market process in this manner.

[15] It would be nice to be able to cite a published claim to this effect. Unfortunately, to the knowledge of the present authors, such arguments only exist so far in the "oral tradition."

[16] In the late 1960s, when the Keynesians were riding high, there was brave talk about ironing out the business cycle. Samuelson (1970, p. 330) even went so far as to title his chapter on the subject "Fiscal Policy and Full Employment without Inflation."

The Myth of the Income Effect

Pascal Salin

Microeconomics traditionally splits the consequences of price changes into two different effects: the substitution effect and the income effect.[1] The effects are supposed to work in diverging directions. The precise reaction of demand or supply to a relative price change can operate either way. The supply curve is not necessarily upward-sloping and the demand curve is not necessarily downward-sloping.

The income effect plays a crucial role in mainstream microeconomics, as well as in applied economics, because it induces economists to think, for instance, that there are backward bending curves. Such curves are particularly assumed to exist for the supply of labor. Within a certain range, a decrease in the real wage would not bring about a decrease in the supply of labor, since people want to maintain their income and, therefore, increase their supply of labor. If this is true in tax theory, the "Laffer-effect"[2] would not exist, at least in certain conditions in which the supply curve for labor is supposed to be atypical. With the income effect, an increase in the tax rate on labor income—i.e., a decrease in the real after-tax wage—would be compensated for by working more. The "Laffer-effect" assumes that there is always an inverse relation between the tax rate and productive efforts. In a similar way, the income effect would account for a possible increase in the rate of savings when the return on savings is decreasing.

The existence of the income effect assumes that the concept of income can be defined in a non-ambiguous way. It can be measured and quantified. In fact, this is not true. Income can only be understood using a precise concept of utility which does not allow room for measurement. In the present paper we show that the income effect is not consistent with a purely logical theory of utility. In reality the income effect can exist only if one adds a specific assumption. Contrary to the belief that the income effect is a general principle, it is in fact only a possible consequence of a specific assumption. The substitution effect—consistent with the general theory of utility—is the only general principle.

Let us consider an individual's supply curve for labor in a

world in which there are only two goods, leisure and wheat. Time is the only scarce production factor. Land is not operationally scarce, so that the physical productivity of one hour of labor in terms of wheat is constant. There is a certain relative price between leisure and labor (the production of wheat). In one hour, one can produce one hour of leisure or one pound of wheat. For this given relative price, an individual wants to share his available time between leisure and the production of wheat. If he does not desire to produce and to consume more wheat, it is because sacrificing one hour of leisure to get one more pound of wheat is not worthwhile from his own point of view.

Now, economists usually define the income of an individual by the quantity of tradable resources (wheat) he is producing at each period; his production of leisure services is excluded. But such a notion of income is arbitrary in comparison with the more general concept of satisfaction (or utility): The individual's total satisfaction is equal to the "sum" of the satisfaction he draws from leisure and the satisfaction he draws from consuming the wheat he has produced. Saying that the desired level of income is equal to y is in fact saying that a maximum satisfaction is obtained when the production of wheat—named income—is equal to y and the production of leisure services is equal to x, knowing that $x + P \text{ x } y = t$, where P_x is the price of one unit of wheat in terms of hours of leisure and t is the available quantity of time, for instance 24 hours a day.

Let us assume now that a disease strikes the wheat crop and it cuts the productivity of labor by one half or—the equivalent—a tax has been introduced on the production of wheat, so that one can keep only half a pound of wheat for one hour of work. The opportunity cost of producing and consuming wheat increases in terms of leisure. The logic of choice would imply that one does not produce as much wheat as before.

Referring to this logic of choice, what could be the meaning of the income-effect? It implies that the individual aims at maintaining the level of his income, at least partially. That is, he wants to maintain his production and consumption of wheat. But it is inconsistent to hold that the individual has two aims in mind. He would have an income target (a certain amount of y): leisure time would be nothing but an instrument which can be used to reach this income target through a process of transformation. On the other hand—and contradictorily—he would have a satisfaction target: he aims at maximizing his level

of satisfaction by obtaining an optimal mix of x and y.

In the above example, it is traditional to say that the individual facing an increase in the cost of wheat may not decrease his production of wheat—although it is most costly in terms of sacrificing leisure—but may decide to work more. Therefore, the supply curve would be backward-sloping.[3] There are more work hours when the return of one hour of work is decreasing. The income effect would thus dominate the substitution effect. In fact, the belief in the existence of the income effect implicitly requires *specific assumptions* which are not absolutely and logically necessary. This is to say, the income effect does not exist as a general phenomenon; it is a mathematical illusion in a badly specified world.

What happens in reality? If one assumes that an individual increases his supply of labor when the return on work hours decreases, it is necessarily because one has added an additional assumption (if not, one ought to admit that the substitution effect—which necessarily exists—is the only one to be met). Very likely, it is implicitly assumed that wheat—contrary to leisure—is necessary for one's survival, so that, if the substitution effect was the only existing effect, there would be a risk for an individual of passing under the subsistence level, which he cannot accept. But that is really saying that there are three goods (or three sources of utility) and not two, namely the pleasure drawn from leisure, the pleasure drawn from consuming wheat, and survival services obtained from wheat consumption. One also assumes implicitly that there is only one possible technology to get survival services, namely wheat production (which is called "income"). But why would there not be another one? As an example, it may happen that the concerned individual knows that he can survive by extracting roots from the soil, the taste of which he does not like very much, but the nutritive value of which is indisputable. So long as wheat is not expensive (in terms of time) in comparison with roots, he prefers to eat wheat. If the opportunity cost of wheat production increases too much, he will certainly consider possible substitutions between wheat, roots, and leisure.

It may happen that shifting to another consumption pattern cannot be done immediately, since one has to find the most productive field of roots, or to invent suitable instruments to extract the roots. Therefore, during some period of time, the individual may increase his production of wheat in order to survive and to prepare the change in technology. But this is also

saying that the existence of the income effect is due to two specific assumptions: The existence of some subsistence level and the existence of transfer costs when shifting from one activity to another one. Now, if the individual could have forecast the relative price change between wheat and leisure, he would certainly not have waited until the last moment, which obliges him to increase his supply of work in order to produce wheat. He would probably have decreased his leisure time earlier in order to prepare the new survival technology. Because of the increasing price of wheat relative to roots, there is a substitution effect between both these goods which make it possible to meet in different proportions both targets (survival and gastronomic pleasure).

The apparent appearance of an income effect is due to a model which has been badly specified and surreptitiously adds assumptions which can be interpreted as the introduction of an exogenous event in a world in which there are rigidities of a technical or institutional nature. Choices are then reshuffled and, during a transition period, what is named the income effect may appear in certain circumstances, as the result of a search for minimizing adjustment costs until the process of change in activities has led to all desired substitutions.

The above remarks can be reconciled with traditional statements of microeconomics. Let us take the traditional figure which is used to illustrate the existence of both the substitution and the income effects (figure 1).[4] The initial equilibrium position of a "consumer"[5]—who has to choose between two goods, Q_1 and Q_2, for a relative price P_1—is point R. If the price of Q_1 decreases, the new budget constraint is AC and the equilibrium point becomes T. Now, one can obtain this later point by a formal splitting of the path from R to T into two paths: The path from R to S represents the substitution effect (pure relative price change, the utility level being maintained constant), and the shift from S to T represents the income effect (the decrease in the price of Q_1 corresponding to a gain in the purchasing power of income). Such a presentation does not help to clarify an important aspect of the problem, namely that the rotation of the budget constraint from AB to AC implicitly assumes that the consumer holds a stock of goods Q_2 equal to OA, so that the relative price change between Q_1 and Q_2 does not affect the position of point A: For a stock of goods Q_2 equal to OA, the individual can obtain a different (higher) quantity of Q_1. On the contrary, if the individual was holding (or producing)

good Q_1, it would be point B which would stay at the same place and the budget constraint would then cut the Q_2 axis at a point lower than D. Total utility would thus diminish. The result is perfectly logical: If the individual supplies Q_2 and demands Q_1, a decrease in the relative price of Q_1 (increase in the relative price of Q_2) leads to the transformation of more Q_2 in goods Q_1. The graph can then be interpreted from three different points of view.

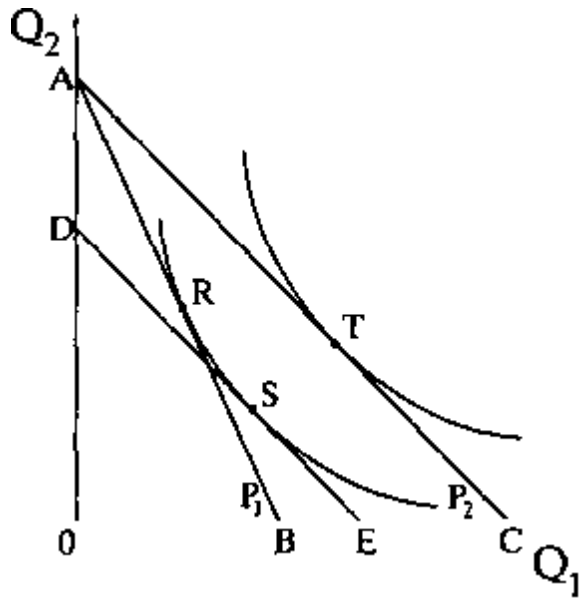

Figure 1

Source: James M. Henderson and Richard E. Quandt, *Microeconomic Theory* (New York: McGraw-Hill, 1958), p. 26.

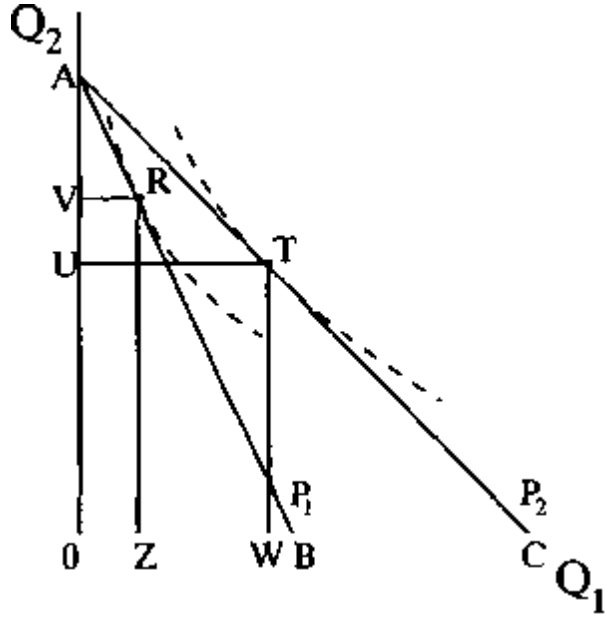

Figure 2

First Interpretation

The relative price change reflects a technological change. Thus, with the same quantity of work, OA, an individual can obtain a greater quantity of wheat (OC instead of OB). The figure then does not represent the choices of the abstract "consumer" of textbooks, but the choices of the individual who *acts* (for instance Robinson alone on his island). If the productivity of labor is increasing, the individual will produce more wheat. On figure 2, OA represents the number of available hours per day, namely 24 hours. When the relative price is P1, the amount of work is equal to AV, the quantity of leisure to OV and the quantity of wheat produced to OZ. When the price of wheat in terms of work hours shifts to P2, work increases (AU), leisure decreases (OU) and the quantity of wheat produced increases (OW). The marginal sacrifice which is necessary to obtain one more unit of wheat having diminished, one substitutes wheat to leisure. There is a pure substitution effect.

Second Interpretation

Figure 2 now represents an exchange economy. The individual

can obtain wheat (Q_1) by selling tomatoes (Q_2) which he is producing. Given the existing techniques and the limitation of his available time, the maximum quantity of tomatoes he can produce is OA. If the wheat price decreases from P_1 to P_2 (the price of tomatoes increases), he will sell more tomatoes to get wheat: On figure 2 his sales of tomatoes increase from AV to AU and his consumption of his own tomatoes decreases from OV to OU. His income does not change if it is measured in terms of tomatoes; it increases in terms of wheat. But there is only a process of substitution between both commodities and no income effect.

Third Interpretation

Figure 1 could be interpreted as representing the *partial* behavior of an individual *only* in his role as a consumer. He is a producer of another commodity, Q_3, which is not represented on the figure, and he demands Q_1 and Q_2. When the budget constraint AB is rotating to the position AC, one implicitly assumes that the relative price decrease of Q_1 in terms of Q_2 does not affect that valuation of Q_3—the supplied good—in terms of Q_2: The supply of commodity Q_3 in exchange for Q_1 and Q_2 would remain equal to OA (in terms of Q_2), which is debatable. In fact, there is a decrease in the price of Q_1 relatively to Q_3, which ought to affect the supply of Q_3. The new budget constraint is very likely situated between AC and DE (figure 1).[6]

These various interpretations are useful since they make it possible to clarify what is precisely the behavior of the individual who acts. But they may also help to demonstrate why the mainstream distinction between the substitution effect and the income effect is misleading. From a purely formal point of view, one can distinguish, as we have seen, the shift from R to S and the shift from S to T (figure 1). But these shifts do not correspond to any *actual* human action.

Let us take the first or the second interpretation.[7] It is meaningless to say that point S corresponds to a pure substitution effect (with a constant level of utility), since point D has no meaning for the individual. In fact, he *has* resources equal to OA and there is only a substitution effect, expressed by the rotation of the AB line to AC: Given the time resources he has, substitutions are possible along the budget constraint and these substitutions depend on the relative price between Q_1 and Q_2.

In the third interpretation, one cannot determine the value

of the so-called income effect as long as one has not made clear what are the actual substitutions between the quantity of good Q_3, on the one hand, and the quantities of goods Q_1 and Q_2 on the other hand. But this is precisely saying that there is no income effect, and that there are only substitution effects between several possible uses of resources. Let us take the case of an individual who is choosing, at some point of time, a given allocation of his resources, specially as regards his time resources, to obtain a certain basket of goods, among which leisure has to be considered. To accept sacrificing an additional unit of leisure, he necessarily has to get compensation by obtaining a greater quantity of other goods. If ever there is an increase in the market price of time (a decrease in the price of other goods), it creates purely and simply a substitution effect.

The general belief in the existence of an income effect partially stems from an artificial separation between consumption activities and production activities. This distinction is usual in microeconomics: The theory of consumption and the theory of production are founded on different grounds and different behavioral assumptions. In fact one does not supply a good without demanding another good at the same time, so that the decision to produce and to supply cannot be separated from the decision to demand and to consume. By cutting, for instance, decisions related to consumption or decisions related to work from other decisions, the traditional theory implicitly maintains as constant certain variables which cannot be maintained as constant. It considers, for instance, the choice between two consumption goods, as if the whole set of activities was not implied. A specific assumption concerning choices made about these other activities is then called the income effect. As we have seen, a change in the relative price between two commodities has consequences which depend not only on the choices made by an individual about these commodities, but about the whole set of possibilities open to him.

In mainstream microeconomics, the income effect and the substitution effect are presented as similarly general effects. In fact, the substitution effect is the only one that actually exists. It may appear that something close to the so-called income effect appears under specific assumptions when one adjusts from one equilibrium point to another one. However, this effect, which describes a specific adjustment path, is only transitory and it does not necessarily exist. This difference between both effects has important consequences. It means, for instance, that the

Laffer effect necessarily exists: An individual shifts from an activity which is more heavily taxed to other activities. However, the process of adjustment may not be instantaneous, so that one may have the feeling that people react contrary to what the substitution effect would lead them to expect. However, this effect, if it ever exists, is necessarily a transitory and secondary phenomenon.

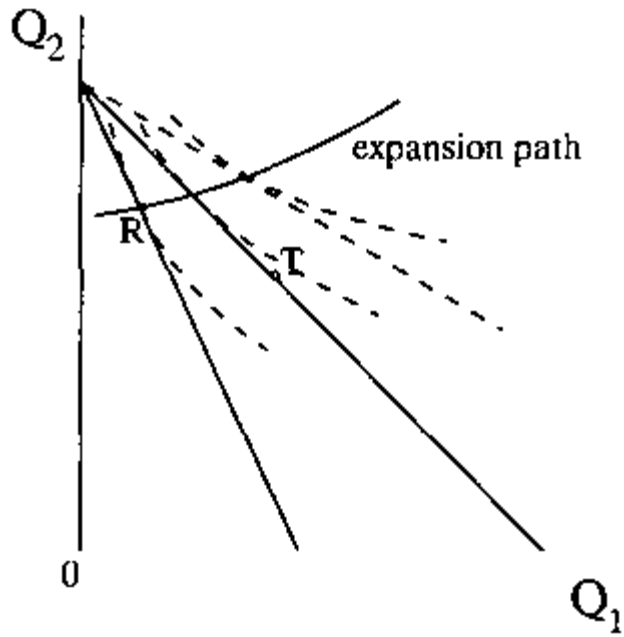

Figure 3

From a formal point of view, one can draw an expansion path so that the quantity of labor is decreasing as long as its price is increasing (figure 3), but this is nothing else than a graphical representation. Now, a graphical assumption does not give any information on the real motives of human behavior. The latter has to be explained by the law of decreasing marginal utility which is in reality a theory of human choices founded on rational logic. If one believes—as we should—that all reasoning in the social sciences has to be coherent with rational logic, it just means that one must get rid of the graphical or mathematical appearances which are inconsistent with this logic.

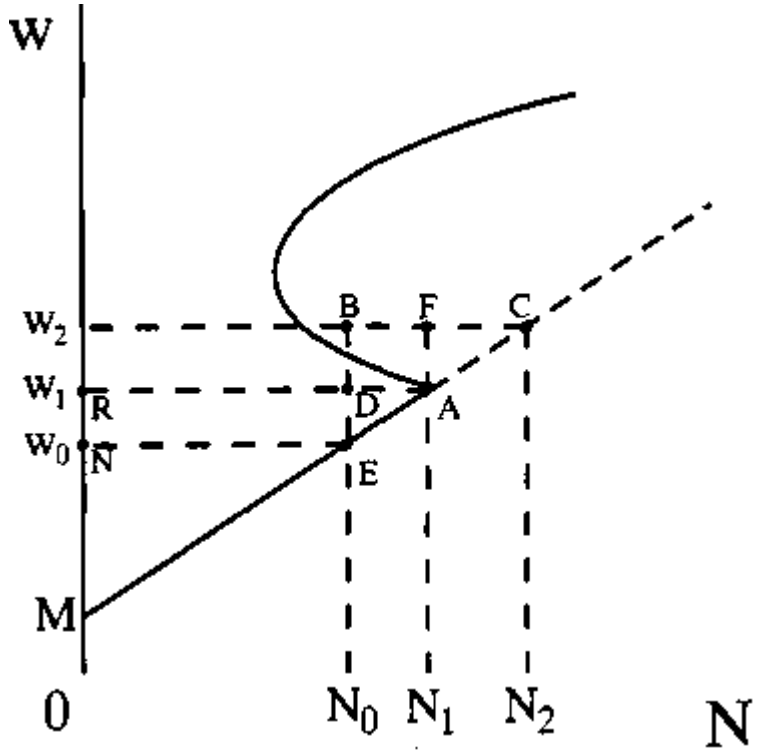

Figure 4

Appendix
Is a Backward-Bending Supply Curve Possible?

As we mentioned in footnote 3, an interesting question can be raised: Is it consistent to admit that both the income effect does not exist and that, however, the supply curve (for instance for labor) can be locally backward-sloping? To try to solve this question, let us take the case of an individual who is going up his supply curve when his real wage increases (figure 4). His supply of labor then shifts from E to A when his real wage shifts from w_0 to w_1. This increase in supply obviously corresponds to the law of diminishing marginal utility: In order to give up one additional unit of leisure, the individual wants a higher real wage as a compensation for his loss of utility. This is exactly the meaning of the supply curve.

However, one has to clarify the distinction between the marginal return and the average return. Let us assume, as an example, that the supply curve on figure 4 represents the daily supply of labor of the individual. At point A, he works during 10

hours for an hourly wage of $1, so that his daily return is $10. He considers that it is worthwhile working one more hour only if this additional hour is paid at least $2, which means that he wants at least an income of $12 for 11 hours of work. From his point of view, it is exactly equivalent to get $2 for the marginal hour, the other hours being paid $1, or to get a higher average hourly wage—in our example $1.09—under the condition that he works 11 hours and not 10. If his job is totally specific—there is no possible substitution with other works—the price of successive hours can be differentiated and the employer may be ready to pay more for the additional hour.[8]

Now, if we consider a market situation with substitutable workers, such a differentiation of wages according to the number of hours worked within a day is not possible, so that the supply curve of figure 4 represents the amount of work hours offered for any hourly (average) real wage. Let us anyhow consider the behavior of one given worker. Let us assume that he is at point E when the real wage is equal to w_0. The precise meaning of this point is the following: Any wage lower than w_0 would be insufficient to compensate the individual for the disutility of an amount of labor equal to No. He needs at least w_0 or more. However, if the market wage is w_0, he cannot get more than w_0. Now, if the market wage rate increases from w_0 to w_1, the preferred point is A. As there is no wage differentiation, the new wage is paid not only on the marginal hours (N_1-N_0), but even on those hours which were already worked when the real wage was w_0, namely N_0. The change from w_0 to w_1 thus represents the minimum increase in the *average* wage rate which is necessary for the *marginal* return thus obtained to be considered as a sufficient compensation for the increased disutility of work.

Under the traditional neo-classical approach it would be said that the individual got a surplus equal to MEN and that the increase in the market wage brought him an additional surplus equal to NEAR. In fact, the individual was ready to offer No for a wage equal to w_0. Now, he can obtain w_1 for this amount of work, so that he gets a sort of windfall profit equal to DENR; and he also gets a marginal surplus equal to EDA. For reasons linked with the distinction made above between the average and the marginal wage rate, the existence of this surplus can be disputed: One might say that the increase in the average wage rate (w_1-w_0) is just sufficient to allow the individual to get the minimum marginal wage rate he wants in order to offer additional work time (from N_0 to N_1). Therefore, we cannot quantify something

like a surplus. But we can be certain that point A is preferred to point E. For a wage rate equal to w_0 the individual did not want to work more than N_0. An increase in the average wage rate necessarily means an increase in the marginal rate, thus inducing him to work more: He prefers A to D. This is the rationale for the upward-sloping supply curve.

This discussion on the very meaning of the supply curve may help us to decide whether this curve can become backward-sloping at some point, for instance at point A. If such a situation exists, it means that, if ever the wage increases from w_1 to w_2, the supply of labor decreases from N_1 to N_0 (instead of increasing to N_2). This is exactly what is assumed by those who believe in the existence of an income effect: As the individual gets more money for any work hour, he works less hours. Is that possible?

Saying that the curve is backward sloping, as represented on figure 4, is saying that point B is preferred to A.[9] As we do know, point B is preferred to point D and to point E (the higher is the wage rate, for a given amount of work, the more satisfied is the individual). We also know that D was not preferred to A, but there is no reason for B not to be preferred to A. However, the real question is not knowing whether B is preferred to A, but knowing whether it makes sense saying that B is on the supply curve. We explained above why A is preferred to D (or, at least, not less desired). Exactly the same reasoning has to be made as regards point B: If the wage rate increases from w_1 to w_2, the individual desires a point which is not on the left of point F (he prefers for instance point C). Therefore, although it may be true that B is preferred to A, C is preferred to B. It means that point B is not a point that the individual may *actually* choose.

Another way to look at this problem is as follows. As we saw above, the supply curve is nothing but a frontier between points which are not desired (those under the curve) and those which are accepted (those which are on or above the curve). At point E the individual declines all wage rates lower than w_0 and accepts all higher wage rates. At point B, the individual is supposed to decline all wage rates lower than w_2 and to accept all higher wage rates. But it does not make sense to assume both that wage rates higher than w_0 are accepted for an amount of work equal to N_0, and that wage rates under w_2 are declined for the same amount of work.

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[1] I thank Philippe Lacoude and Frédéric Sautet for their very pertinent comments on a previous version of this paper, the idea of which actually stemmed from a talk with them.

[2] The increase in a tax rate decreases the tax base and, beyond a certain tax rate, this effect is sufficiently important for the increase in the tax rate to induce a decrease in tax revenues instead of an increase. It is now usual to label this process as the "Laffer-effect." But it had been developed before Arthur Laffer gave it its popular expression. One can find it, for instance, in a refined form, in Geoffrey Brennan and James Buchanan, *The Power to Tax* (Cambridge University Press, 1980).

[3] Hans-Hermann Hoppe raised an interesting question on a previous version of this paper: If the income effect does not exist, does it imply that a supply curve cannot be backward sloping? We explain in the appendix why, in our opinion, it is impossible.

[4] Figure 1 is extracted from the classic textbook by James M. Henderson and Richard E. Quandt, *Microeconomic Theory*. But a similar graph can be found in most microeconomics textbooks.

[5] Let us use this traditional concept, although it induces the danger of splitting a human being into different, non-coordinated, parts (the consumer, the producer, the taxpayer, etc.).

[6] As an example, one may imagine that the budget constraint is rotating around point R.

[7] Both interpretations are very close to one another. They imply that, from a given stock of resources—for instance time resources—an individual can obtain a good either via a technological process of transformation he is doing by himself, or via a process of exchange involving his labor services or the outcome of his labor.

[8] There is always a certain degree of specificity in the employment of a worker. For instance, as transaction costs do exist, an employer will prefer paying more for extra hours by a worker who is already employed in his firm than hiring an additional worker.

[9] If B was not preferred to A, it would just mean that the supply curve cannot go through B.

Hayek: Some Missing Pieces

Anthony de Jasay

Has Hayek a theory of the social order, a comprehensive view of society as a determinate and self-reproducing system, in the same way as Hobbes or Marx, though perhaps no one else can be said to have an (albeit simpler) theory of the social order? The question has some weight, since if it is true that Hayek is the most influential twentieth-century advocate of liberal government, the strength and penetration of normative liberal doctrine must to no small extent depend on the persuasive force of his positive social theory: the less coherent it is, the more modern liberalism is vulnerable to erosion and invasion by incompatible elements.

It is hard, probably harder than it looks at first sight, to be sure what we mean by a social order. Hayek himself mostly uses the term "order" in the context of his ideas about the spontaneous order. However, he intends order as such to mean something akin to a pattern or schema, such that by looking at a part or a phase of it, we can make good enough conjectures about the whole (1973, p. 36). It is as if, by finding a piece of a jigsaw puzzle that depicts a cloven hoof, we could tell that the puzzle, if it were all fitted together, would in all likelihood represent a cow, a goat, or perhaps the devil, but certainly not a lady with her parasol.

My thesis, putting it at its sharpest, is that Hayek shows us pieces of a complex jigsaw that are intriguing and inspiring, but they do not suffice to let us predict whether, if we had all the pieces, the completed puzzle would show a cow, a goat, or the devil. If I am anywhere near right, he has no complete theory of the social order to back up his liberal recommendations. They are in any case a little incongruous, since he predicts that whichever kind of order is superior will duly prevail through group selection, hence recommending it is somewhat out of place even if we could know that it was not superior, and *a fortiori* if we could not. Does Hayek show us how to tell?

There are, it seems to me, at least three areas of the puzzle where he has left out important pieces, and where pieces he did place do not really fit together. One is the distribution of the social product, the other is public goods, and the third is the

spontaneity of the very spontaneous order that gives the whole puzzle its character.

Making the Free Society Attractive

One of Hayek's most widely known normative ideas is that there can be no such thing as social, or distributive, justice. The concept is simply a category mistake: "there can be no distributive justice where no one distributes" (1978, p. 58). It is certainly doubtful whether one can defend, from arguments drawn from justice, the popular belief that certain participants in arm's length transactions are responsible for the distributive shares that accrue to other participants; that rich employers should pay higher wages to poor employees, and that supermarkets should not drive small shopkeepers out of business.

Hayek holds, reasonably enough, that the terms of voluntary exchanges are determined objectively, they are not matters of anybody's good intentions, nor of what richer parties think the poorer parties ought to be getting: nobody distributes. What he calls the "market order" entails a distribution that is neither just nor unjust. It is, however, efficient. As such, it has instrumental value and can serve other valuable ends. These ends, for Hayek, cluster around the maximum chance for the randomly chosen individual to conduct his own life successfully. Distributive justice does not figure among the ends the riches created by the free market order should serve. Along line of others, from John Stuart Mill to A. Mueller-Armack and beyond, have of course taken the well-known position that the market order conforms to "economic laws" and is neither just nor unjust, but the wealth its efficiency creates can be devoted by "society" to satisfying, among other things, the requirements of distributive justice.

Both Hayek's and Mill's position, different as they are from each other, stand in sharp contrast to the more rigorous thesis that the market order does in fact produce a distribution that *is* just if the distribution of ownership in a selected initial position was just, and subsequent exchanges were free from force and fraud.

Hayek, in his insistence that the whole issue is categorically irrelevant to the market order, leaves a blank where others put distributive justice. Its missing piece is an unintended invitation for them to fill the void.

However, while disputing the very sense of the concept of distributive justice, Hayek is nevertheless concerned with

distribution. He notes that modern societies without exception do organize welfare states,—is this cultural selection at work?—and that this evolution is consistent with respect for "abstract rules of just conduct." It is more than a historical shift in the spontaneous order, more than an unintended result of human actions directed at other purposes: deliberately helping it along is a positive "task of the defenders of liberty" (1960, p. 259). "[T]hough a few theorists have demanded that the activities of government should be limited to the maintenance of law and order, such a stand cannot be justified by the principle of liberty" (ibid., p. 257). The welfare state is a conglomerate of many diverse elements, some of which may "make a free society more attractive" (ibid., p. 259). For one, government must provide for "the minimum of sustenance" for the helpless, and this minimum should be, not absolute, but relative and rising with the general standard of living (ibid., p. 285). For another, such provision cannot be confined to the deserving poor, but must be extended to all (ibid.). As a corollary, it becomes the recognized duty of the public to compel all to insure or otherwise provide against the "common hazards of life" (ibid., p. 286).

It is clear enough that a guaranteed minimum income, once granted, will not for long be kept down to the level of absolute physical subsistence, but will creep upwards and take on features of a defense against "relative deprivation." It is also clear that if people no longer have an incentive to provide against bad luck and old age, a case is created for compulsory social insurance. What is less clear is why Hayek considers, not only that these things are bound to happen, and to happen on a scale that expands with economic progress, but that it is no bad thing that they should. Their object is not to conform to any moral imperative, whether of compassion, fellow-feeling, let alone distributive justice, which he rejects as the product of muddled thought. Nor is it because a distribution brought about by the market order can, along the lines of Benthamite and Pigouvian utilitarian thought, be "corrected" to generate a larger sum of aggregate utility, for Hayek to his great credit never embraces the idea of interpersonal aggregation of utility. In fact, his advocacy of such quintessentially redistributive measures as the guaranteed minimum income, is accompanied by injunctions that such measures must not have a redistributive purpose! Barring both justice and utility as their object, all he leaves us with by way of justification is that some redistribution, (if it is not intended to be redistributive) "makes a free society more

attractive."

Why, however, should one seek to *make* the free society more attractive? Is it not going to prove itself more attractive anyway in cultural selection, by its superior aptitude to prevail over less free societies (assuming that the ambiguities of what it means to "prevail" have been resolved)? Manifestly, Hayek thinks it can do with a bit of help. Embellished by the institutions of a moderate welfare state, presumably more people will opt (vote) for it, or fewer people will desert it for the totalitarian alternatives he abhors. Does this mean, however, that the free society is not the social order that prevails because its intrinsic properties make the groups that adopt it more numerous?—does it mean that the free society is a social order that prevails over others if and because its properties are adjusted to what people from time-to-time find attractive (even if it does not make the groups adopting it more prosperous and numerous)? If the latter is the case, what distinguishes Hayek's social theory, or at least the part he has made explicit, from the theory of democracy as the system where social choices are made by adding together votes for alternatives being acknowledged as superior, not by virtue of its intrinsic capacity to make its host group grow, but by virtue of attracting more votes?

Enough pieces are missing from the jigsaw to permit either interpretation, though Hayek would no doubt protest quite sharply against his cultural selection being, by a piece of impudent distortion, equated with procedural democracy. However, his missing pieces leave room for a "conglomerate of elements" that may well be mutually inconsistent, part cow, part goat, part devil, leaving it to the spectator to call which is which. What exactly is a free society? On what grounds can Hayek predict that it will prevail? Above all, what is the point in its functioning of the unplanned interplay of individual decisions whose collective effects are unintended, and what of consciously formed collective choices carried out by the agency of the state? Hayek's *obiter dicta* on redistribution seems to me to leave the question largely open. This void is only deepened by his treatment of public goods and the role of the state in providing them.

The Pivot Between Ordered Anarchy and Statism

There is a measure of unself-conscious irony in Hayek's call for a "much more clear-cut attitude towards [public goods] than

classical liberalism ever took" (1978, p. 144). Classical liberalism would entrust to the state the provision of only one, very special, public good, to wit, "the enforcement of general rules of just conduct" (ibid.). There is, however, a multitude of other "highly desirable" public goods that "*cannot* be provided by the market mechanism" because they "*cannot* be confined to those who are willing to pay for them" (ibid., my italics). Therefore the means for providing them are either raised by the coercive power of the state, or not raised at all. The liberal may wish that the way be left open for private enterprise to provide them if a method is discovered for it to do so (1978, p. 145), but pending such discoveries, it is legitimate and indeed mandatory for the state (or local authorities) to tax society in order to enable it to enjoy these highly desirable things.

Is Hayek's position "much more clear-cut" than that of classical liberalism? Public goods are of central importance to social and political theory. If they *cannot* be provided in voluntary transactions, but we must and want to have them, the state is necessary and Pareto-superior. If they *can*, ordered anarchy is possible, and the state usurps the space that, in its absence, would be filled by Pareto-superior, voluntary transactions. It may be held that property and contract enforcement is a necessary condition of voluntary transactions. It may be further held that such enforcement is a public good only the state *can* provide. This, in brief, is the classical liberal position of the minimal, protective state. It may or may not be good theory, but it is clear-cut enough. More recent theory suggests that even contract enforcement *can* be provided voluntarily by those who expect to benefit from respect for their contracts, and there is no evidence that organizing a state for the enforcement is more efficient, less costly in terms of total transaction costs, than its decentralized, private provision. In this view, even the minimal, classical liberal state is a needless blemish upon ordered anarchy, let alone the modern liberal state subsumed by Hayek, that has a mandate to tax society for the sake of providing goods and services as long as they are both public and desirable.

Hayek seems strangely unaware of the pivotal role of public goods theory between ordered anarchy and statism, and treats it cursorily. Hardly realizing its consequences, he accepts the textbook division of the universe of goods and services into two exogenously determined halves, public and private. Private goods are *excludable*, hence *can*, public goods are *non-excludable*,

hence *cannot* be produced in voluntary transactions, where goods are forthcoming against equivalent resources or not at all.

In reality, there is no such exogenous division. Nothing is "excludable" without further ado; for nothing can be sold without the seller incurring costs to exclude from access those who would not pay the price. Exclusion cost is no more avoidable in a good destined to be sold than is the cost of production or transport. Everything is excludable at *some* cost that may be high or low, depending on a host of circumstances, of which the physical characteristics of the good is only one. Over the universe of goods, exclusion cost is a continuous variable. Where society draws the dividing line between public and private goods is an endogenous decision, for social theory to define. Providing a good publicly saves exclusion cost. This advantage may be partly, wholly, or more than wholly offset by costs arising from wasteful use of the good the consumer can have without paying for it, and from other, less direct risks. If social choice were usually "collectively rational," goods would be provided publicly if the saving of exclusion cost outweighed the disadvantages and added costs of publicness. As it is, whether a good becomes public, or stays private, is decided by the "public" through a political process that is not set up, and is quite unlikely, to be "collectively rational" in the above sense. Certain goods become public goods because it is held that people ought not to *have* to pay to have them, others because they *won't*. All this is well understood now, and was already understood when Hayek expressed his view that the state ought to provide "highly desirable public goods."

The half-universe of public goods is in fact one *we* fill. It thus comes to contain innumerable goods that are desirable *if* and because they are public, so that their marginal cost to the individual consumer of the good is nil or imperceptible, and they amount to a "free lunch," to something for nothing. If so, the observation that they are highly desirable is a product of circular reasoning. As long as the good remains a good, (i.e., short of saturation) every potential consumer of it will readily vote for its public provision if it is not yet so provided, and for its provision on a more generous scale if it is provided but sparingly. Where should the line be drawn? How should a liberal society count the votes for more of everything, and the votes against the taxes to pay for it? Whichever way it counts them, it has relatively little chance to stay liberal.

There is only a missing piece in Hayek's theory where the

principles should be that a liberal society would adopt to draw the line between public and private, to keep it there, and stay liberal in the process. Unlike classical liberalism that confines the state to the provision of a single public good, law enforcement, Hayek's social order is less, rather than more, clear-cut: it permits, if not positively mandates, the state to produce any number in any quantity; the state's place in society is consequently *ad hoc*, open-ended, indeterminate, and no amount of dire warnings against socialism, fatal conceit, and loss of freedom will make it more determinate.

A theory of social order is incomplete if it makes no serious attempt at assessing the long-term forces that make the public sector grow or shrink. This can hardly be done without relying on a defensible theory of public goods. Hayek feels no necessity for one. Strangely, the question seems to have held no interest for him. By way of making good the missing piece, one must insert some account of the conditions under which goods will remain private, produced only for restricted access against payment in full, as opposed to the conditions that will favor their production for unrestricted access by any member of a given public, with the necessary resources being raised either by voluntary association under contract, or by involuntary taxation. The relative weight of these three alternative solutions is perhaps the decisive influence on the extent to which a society is political ("politicized" is the pejorative word usually employed for it), shaping its life by collective rather than by individual choices. The question is of abiding interest to Hayek. He does not answer it, though he fervently wishes throughout his massive *oeuvre* that the answer should favor individual choice.

Who Enforces the Enforcement?

Why does it matter to Hayek, or anybody, whether an order is spontaneous or not?

The attraction of spontaneity is both moral and prudential. Though it is not clear whether Hayek saw more than instrumental value in it, he stressed that the elements in a spontaneous order "arrange themselves" rather than being arranged by "unified direction" (1960, p. 160). When the elements are human beings, their property and their choices, nobody's dispositions are imposed on him by another's command. Everybody chooses for himself what seems to him the best, given that everybody else chooses likewise. All choices are

interdependent, and made mutually compatible by property rights and their voluntary exchanges. None dominates and none is subordinated. This lends the order in question a moral *laissez passer*, while non-spontaneous orders, constructed by imposing some alternative on the participants by authority or the threat of force, are morally handicapped by their coercive element. If they are to pass for legitimate, they need to show some compensating merit. Spontaneous social orders, in other words, have a *prima facie* moral standing. Constructed orders must first earn it, or do without.

The prudential attraction of spontaneous orders springs from the belief, strongly held by Hayek and fairly well supported by historical evidence, that since the knowledge required for successfully designing a complex order is either irretrievably dispersed or latent or both, the constructed order runs a high risk of being inefficient if not grossly counter-productive.

Game theory calls "coordination game" an interaction where, if all or most players adopt the same norm of behavior (strategy), all get a payoff that is no worse and may be better than if they adopted different norms. Compliance at least weakly dominates deviation. Hayek's spontaneous order is at first sight a coordination game: he speaks of rules that, if they are generally observed, make all members of a rule-following group "more effective," "because they give them opportunities to act within a social *order*" (1978, p. 7, Hayek's italics). The rules are randomly generated, by analogy with genetic mutation. Some are positively selected in a process of "cultural transmission . . . in which those modes of conduct prevail which lead to the formation of a more efficient order" (ibid., p. 9), because the more efficient order helps the group living within it to "prevail" over other groups. A classic and appropriately Austrian example is the use of money, a more efficient "norm" or "rule" than barter. No member of the money-using group can do better by reverting to barter once most others trade against money. Compliance dominates deviation.

All would be well if Hayek confined his concept of the spontaneous order to cases of voluntary rule-following that are coordination games, i.e., where the emergence of the order depends on some members of a group adopting the same rule of behavior, but once they do, the order is self-enforcing: all members have a continuing incentive to adhere to it and can only do worse for themselves if they deviate from it. Patently, however, there are important rules that do not function like this.

Once they are widely followed, they generate an incentive for the individual member of the group to violate them. Perhaps the simplest "spontaneous" order, as Hayek would call it, that operates in this perverse way is the queue. Every member of the group that has a rule of queuing rather than milling around and pushing each other, gains from every other member following the rule. However, the member who jumps the queue gains more than the one who stands in it; he can abuse the decent restraint of the others. Queue-jumping dominates queueing. The same is true of the spontaneous order that is at the center of Hayek's theory, the "market." It will not function to the advantage of every participant unless at least two key rules of conduct, respect for the property of others and performance of reciprocal promises, are widely followed. However, if they are followed by some, this *ipso facto* tempts others to steal, usurp, trespass, and default on contracts. These favorite deviations offer a higher "payoff" than compliance with the rules, which of course renders compliance a potentially self-destructive mode of conduct. Neither queueing, nor the market, nor many other ostensibly spontaneous orders are truly spontaneous, i.e., coordination games along the benign, self-enforcing lines of using money, speaking the same language or driving on the same side of the road. They are thinly disguised or overt prisoners' dilemmas.

Though he steers clear of game terminology, Hayek is quite aware that this is so, and that those of his putative spontaneous orders that are in effect prisoners' dilemmas, and have deviation as their dominant strategy, need something more than the efficiency of their rules of conduct if they are to survive. Not being self-enforcing, they need some support from rule-enforcement. At one point, he suggests that the successful group, though it does not realize to which rule it owes its superiority, "will accept only those individuals as members who observe the rules traditionally accepted by it" (1978, p. 10). Hayek's group, then, expels robbers and cheats. It uses ostracism to punish and deter violations of its rule. Ostracism is one of the several time-honored voluntary enforcement mechanisms that have been employed, since the dawn of civilization, to ensure the survival of beneficial but fragile conventions, including adherence to the customs and laws of property and contract, where the convention itself generates an incentive to break it. Ostracism, like other defenses against violation, can thus be understood as an auxiliary convention, a satellite serving the fragile, nonself-enforcing main convention. In the absence of such supporting conventions, the

emergence and widening of the division of labor, trade, and capital accumulation would be incomprehensible. So would be those cultural, legal, and political institutions whose material wherewithal was produced by these developments.

There is some excuse for holding that a spontaneous order that needs to be enforced is still a spontaneous order, if its enforcement itself is spontaneous, the norm of a voluntary convention. Its adherents follow it by voluntary choice: they "prefer" to carry out costly and often unpleasant actions to exclude, punish, and deter violators, and do not need to be threatened with exclusion, punishment or other deterrents to be induced to do so. More realistically, they may not actually "prefer" to act against violators, but wish to avoid disappointing the conventional expectations of fellow members of their group who rely on their help, and on whose help they wish to be able reciprocally to rely. (Splitting hairs, I am treating the threat of a sanction and the risk of disappointed reliance on an expected benefit, as different in kind. If they are not, the distinction I seek to make between spontaneous and enforced enforcement becomes blurred, and difficult to sustain.)

It is, however, stretching spontaneity beyond the breaking point to call an order spontaneous if it depends on "enforced enforcement," i.e., if members of the group or a subset of them punish and deter violators of the rules, not because they think it is in their reciprocal interest or simply because it is right to do so, but because they are threatened with exogenous sanctions if they fail to do it. In the latter case, with enforcement at one level depending on enforcement at the next higher level, who ultimately enforces enforcement?

Hayek is convinced that as civilization evolved, the scale of human coexistence changed by an order of magnitude, from small to great. There was a passage from the "face to face" society of small groups to the "Great Society" of the large group. Members of the small group were related to each other by ties of many kinds, and these relations gave rise to group solidarity. Members of the large group are unrelated and anonymous. They succeed to profit from the division of labor and the economies of scale made possible in their "extended order," not by relying on personal relations of trust, reciprocity and sympathy, but by respecting a suitable set of "abstract rules of just conduct."

Who, however, enforces the rules of just conduct? Respect for property and contract are not self-enforcing. On the contrary, they generate incentives for their own violation. Failing reliance

on reciprocity, there is no voluntary convention for enforcement, except for saying that in classical liberal doctrine it is the sole field where coercion is legitimate (1978, p. 109). In fact, if the Great Society works the way he believes it does, anonymously and at arm's length, enforcement cannot be supplied spontaneously, for it is undermined by the free rider problem and perverse incentives in exactly the same way as property, contract, and other prisoners' dilemmas. Enforcers must be coerced to enforce. Calling a spade a spade, one would say instead that enforcers must be paid to enforce, and for this to happen taxpayers must be coerced to pay taxes. There must be at the end of a regress of enforcement-enforcers, an ultimate, sovereign enforcer. There is no doubt whatever that when talking of the need to enforce rules of just conduct, it is the state that Hayek saw as the necessary, sufficient, and legitimate enforcer.

Here, too, vital pieces are missing from the jigsaw. Take the market order whose unique efficiency helps the large group to prevail. It is a web of exchanges of all kinds, most of them indefinitely repeated. In some instances, the two sides of the exchange are performed simultaneously. These are in most circumstances self-enforcing, and the parties to them might as well be anonymous (though usually they have names). When, however, performances are not simultaneous, executory contracts of some complexity are often required, and they are not self-enforcing. How could strangers with no name and no established reputation enter into such contracts with each other, the state's enforcing facilities notwithstanding? Do they ever do so? Who will be prepared to perform first when facing a nameless unknown? Yet, how, if you are anonymous, can you do any business at all except by performing first, unless somebody, broker, banker, insurance underwriter, middleman, lends you his name for love or money? In the Great Society, most people may well be anonymous to most others, because they have no profitable occasions to get acquainted; but since they have no such occasions, it does not matter much that they are anonymous. However, few people or none can remain anonymous to the handful of others with whom they interact in making the market order go round. That handful gets selected spontaneously, and it is always a "small group." There *is* no anonymous, large-group interaction because it would be too numerous to permit it. Its individual members interact in several "small groups" whose membership may be partly overlapping, partly different. Thus, each small group is open to other small

groups and memberships are intermingled at the edges.

The truth of the matter about the Great Society is that few or no large groups are completely homogenous. Their membership can always be disaggregated, sorted into smaller groups by a variety of selection criteria. As the large group is always *the sum of small groups*, the converse goes as well: small groups can always be aggregated to form what is, from a chosen point of view, a large group. Its dimensions are in the eye of the beholder.

If one chooses to see it only as a large group, as Hayek does, something must be said about the existence problem of the nonspontaneous order which its specifications entail: if Hayek won't tell who enforced the enforcement, others will expound it with a vengeance.

For the effect of leaving out pieces from the jigsaw puzzle of social theory is that the vacuum is only too naturally filled by a false conception of the state. This conception is hardly compatible with liberal principles. Indeed, it is hardly compatible with the very market order that Hayek wants to be spontaneous, and culturally selected to make groups that adopt it succeed and groups that deliberately deform it, fail. For although it does not logically exclude other alternatives, Hayek's theory leads straight as an arrow to the facile conclusion of an indispensable state that alone upholds property and contract. They exist by the grace of society acting through the political authority. They function as society chooses that they should. The massive chorus we have been hearing from the left and center, chanting that property is a bundle of separable privileges granted or withheld by society, and the freedom of contract is subordinate to public policy, is vindicated by the very theory that should have prevailed over such a chorus with a clearer, a more powerful voice.

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Vertical Restraints and the Retail Free Riding Problem: An Austrian Perspective

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Vertical restraints are restrictions that manufacturers place on the retailers who carry their products regarding to whom those dealers may resell the goods, or on the retail prices they may set. Although there exists a variety of economic explanations as to why rational manufacturers might wish to impose such downstream restrictions under different market conditions, perhaps the one which garners the most attention within the economics profession is that vertical restraints can help combat free riding problems within the retail sector.

The examination of vertical restraints as important pieces of the manufacturer's arsenal against free riding, however, like much of industrial organization based on neoclassical price theory, is steeped in equilibrium analysis. Ignored almost entirely in the literature is the dynamic nature of the free riding problem, and the critical roles that knowledge and discovery play in its evolution. Moreover, because the leading analyses consider a closed world of manufacturers and retailers in an isolated state of equilibrium, there exists no room for entrepreneurial activity.

In this article, I apply standard Austrian economic concepts —including the competitive market process and the roles played by knowledge, discovery, and the entrepreneur—to the analysis of vertical restraints in combating the retail free rider problem. The exposition is emphatically not meant as a thorough and exhaustive analysis of all vertical restraints from an Austrian viewpoint. Nor do I propose any new theoretical rationales for the employment of vertical restrictions. Rather, the paper seeks to establish two points. First, an Austrian analysis of retail free riding provides meaningful insight into the problem beyond that incumbent in conventional neoclassical equilibrium models. Second, much of the often bitter debate over the welfare implications of vertical restrictions, by ignoring the market process, is substantially misguided. By presenting vertical restraints and retail free riding in an Austrian light, perhaps

those who debate the welfare properties of vertical restrictions will begin incorporating the importance of the competitive market process into their arguments.

The first section of the paper briefly outlines the general retail free riding problem and discusses the standard analysis of how it can be fought with vertical restraints. The next section critiques the neoclassical analysis of vertical restrictions in combating free riding and applies the tools of Austrian economics to the problem. The third section addresses welfare, and the current policy debate over vertical restrictions. The final section provides commentary and a brief conclusion.

The Retail Free Riding Problem

A newly introduced, high quality product is not guaranteed market success. To compete successfully, the manufacturer must inform potential consumers of the product's existence, as well as supply at least a modicum of information regarding basic product characteristics, attributes, or capabilities. Although advertising can and often does effectively convey much of the most basic product information to potential consumers,[1] not all demand-enhancing, product-specific information can be efficiently provided by manufacturer advertising, or by other manufacturer actions. Rather, certain information is best imparted at retail establishments, including information gleaned from product demonstrations or especially knowledgeable salespersons. Because such pre-sale information is costly, the information-supplying retailer must recover the costs of information provision through the markup over its wholesale cost.

However, nothing prevents a retailer, or set of retailers, from opportunistically abandoning the pre-sale information services, thereby lowering cost, and luring consumers away with the resultant lower retail prices from the information-providing dealers. That is, rational consumers can freely absorb the information offered by a "full-service" retailer, yet purchase from a "no-frills," discounting dealer to receive a lower retail price. In effect, these no-frills dealers can "free ride" on the information-supplying retailers. If this free riding activity continues unchecked, the full-service retailers, no longer able to recover their information costs due to reduced sales volume, will be forced to discontinue information service provision. Because these services are demand-enhancing, elimination of or reduction

in the level of services offered at retail is harmful to the manufacturer.

Not all retailer-provided services are subject to this type of free riding. If the retailer is able to charge separately for the demand-enhancing services it offers, the additional costs associated with service provision can be adequately covered by a separate service price. For example, some specialty tennis retailers allow a customer to take one or more tennis racquet models home overnight to try out the equipment at the customer's leisure. If these high-service dealers charge separately for this service, as many do, then even if a customer discovers one model which she particularly fancies yet chooses to purchase it from a discounter at a reduced retail price, the specialty store will still be compensated for the service it offered. No free riding will have occurred.

Moreover, free riding will only be a problem to the extent that the retail services are offered *prior* to the sale. Post-sale services, since they are provided only to paying customers, are not subject to free riding. For instance, a home improvement store which provides substantial assistance to customers during the remodeling process *after the products have already been purchased* is likely to find free riding less of a problem than a retailer who only provides pre-sale services.

It is entirely possible that some subset of consumers will, over time, become fully informed and therefore find the information services offered by high-service retailers superfluous. Such customers will seek out discount retailers for their purchases. Nevertheless, so long as some not insignificant number of potential consumers still find retailer-provided information meaningful, free riding will remain a potential problem for those full-service dealers who provide complimentary pre-sale services.

The extent to which retail free riding is a pervasive and widespread problem is an open empirical question about which little has been written in the industrial organization literature. Free riding activity is not easily documented, and no systematic inquiry has been made into the magnitude of the problem. The majority of the limited analysis which has been performed involves examination of individual litigated cases of vertical restraints.[2] Although the frequency and severity of retail free riding is uncertain, there is no question that the problem receives substantial attention in virtually every industrial organization textbook. If the resources of the profession devoted to the study

of a particular problem serve as a proxy for its importance, then the retail free riding problem merits additional examination.

In any event, when retail free riding is of concern to a particular manufacturer, it has a clear incentive to undertake actions which can prevent, or at least ameliorate, the problem. One such set of actions is vertical restrictions.

Vertical Restraints and Retail Free Riding

It is the prospect of lower retail prices that entices consumers away from full-service retailers to discounting, no-frills dealers. The manufacturer can prevent such price cutting by imposing minimum resale price maintenance (RPM) on its dealer network. [3] By setting a retail price floor below which no retailer may sell the product, the standard argument goes, the manufacturer deflects the ruinous price competition into non-price competition in information provision.

Of course, RPM can and is used for reasons other than combating the retail free riding problem. A number of other rationales for the practice have withstood scholarly scrutiny, and still receive substantive attention in the literature. For example, RPM may facilitate dealer and/or manufacturer collusion, serve as an aid to price discrimination, or provide an incentive device to promote the establishment of additional retail outlets. [4] Nevertheless, the limited empirical record seems to suggest that, at least for litigated cases involving RPM, the practice is predominantly used to minimize free riding. Ippolito in her systematic examination of all public and private cases filed between 1976 and 1982 alleging vertical price restraints, finds that the collusion theories are plausible explanations for no more than 15 percent of all case filings, and an even smaller percentage of the private cases. Yet roughly 70 percent of the cases appear to be situations where retail free riding could have occurred. In fact, virtually all of the cases she examined are consistent with one or more of the “special services” theories of RPM. [5]

Resale price maintenance is not the only vertical restraint option open to the manufacturer. Alternatively, the manufacturer could remove any potential free riding activity by granting to a single dealer in each geographical market an exclusive territory. Since the retailer granted the exclusive territory is insulated from any potential free riders, the manufacturer’s incentive to have information services provided is perfectly transferred to the

dealer.

Neither of these vertical restraints, however, completely solves the manufacturer's free riding problem. Because consumers do not always make locational purchase decisions based solely on the quantity and quality of the information provided by dealers, the uniform retail prices guaranteed by RPM do not necessarily generate a pure incentive for dealers to provide the level of information manufacturers desire. In particular, residual free riding can occur, causing retailers to select a quantity of information provision strictly less than the manufacturer's preferred level.[6] Since these information services are demand-enhancing, insufficient information investment by retailers reduces aggregate sales and hence manufacturer profitability.

On the other hand, the artificial elimination of retail competition spawned by the geographical restrictions associated with exclusive territories confers to the dealer sufficient market power to mark up retail prices accordingly. The higher retail prices constrict the manufacturer's derived demand, also reducing profitability.

The conventional analysis, then, suggests that the retail free riding problem must be fought with one of these two imperfect strategies. An Austrian insight into the problem and these two proposed remedies, however, reveals not only that the vertical restraint solutions are likely to be much less effective than the orthodox analysis allows, but that a third solution can, and often does, help mitigate the retail free riding problem.

Vertical Restraints and the Retail Free Riding Problem: An Austrian Critique

Knowledge

To compare the relative efficacy of RPM and exclusive territories in combating the retail free riding problem, and to implement the better strategy, requires that the manufacturer possess a set of market knowledge that is impressive in both its breadth and depth. Under RPM, the manufacturer must devise an optimal retail price, below which it desires no retailer to offer the product to consumers. To determine this retail price floor, the manufacturer must be thoroughly acquainted with the demand schedule for its product. But as Mises made clear,[7] the manufacturer is unlikely to know the shape of its demand curve.

This knowledge problem is multiplied dramatically under exclusive territories, where the manufacturer must know the demand for its product in *each separate geographical market* in order to efficiently design the territories themselves and set an appropriate wholesale price in each.

The knowledge problem is likely to be especially acute for the manufacturers of newly introduced products—precisely those products for which the information supplied by retailers is most critical. The assumption that a manufacturer of a new product never before marketed possesses sufficient knowledge of a *hypothetical* demand curve to make meaningful decisions about optimal wholesale and retail prices certainly strains the bounds of credibility.

Furthermore, for RPM to prevent sales from bleeding to lower priced outlets, the retail price floor set by the manufacturer must be uniform across the entire retail network. But a single retail price will be optimal only if all retailers incur identical costs, a popular assumption within the literature. However, the actual costs which affect retailer decision making are subjective opportunity costs,[8] known only to each individual dealer. Even if the manufacturer were somehow able to magically learn of all these subjective retailer opportunity costs, it is exceedingly unlikely that they would all be exactly the same. In all actuality, no single optimal retail price exists for the manufacturer to set.

The Information Entrepreneur

The most often cited analyses of vertical restraints in fighting retail free riding consist of insulated manufacturers and retailers operating within a closed world. Solutions involving other parties are not considered as options. In an open universe of decision makers, however, the free riding problem for the manufacturer is, at the same time, an opportunity for an alert entrepreneur. Kirzner opens the entrepreneurial door when discussing the information content of advertising.

> If producers did not offer “free” information jointly with the product, consumers would be forced to use other techniques of purchasing information. In fact, the provision of free information through advertising has, in this line of ideas, come more recently to be integrated into the broader theory of

> the economics of information. In this theory, the provision of information is treated as a service separated from the products to which market information is relevant. Moreover, it is a service whose usefulness is *valued* by the consumer *separately* from that of the relevant products.[9] (emphasis in original)

Any reduction in information offered by full-service dealers as a response to free riding activity provides an opportunity for alert entrepreneurs to fill the information lacuna with their own information services. Since, as Kirzner pointed out above, product information is often valued by the consumer distinctly from the product itself, "information entrepreneurs" can bundle information packages and market them separately and directly to the consuming public. In fact, as argued below, the information supplied by third party information entrepreneurs is likely to be superior to that offered by retailers.

Consider, for example, the markets for bicycles and bicycle equipment. In the last decade or so, bicycles and bicycle equipment have become increasing complex, due in part to specialization and advances in technology. Today, sporting goods dealers and specialty bicycle shops sell a broad assortment of racing bikes, road bikes, mountain bikes, and so called "hybrid" bikes, which combine features of racing and mountain bikes. Each type of bicycle requires its own assortment of specialized parts, components, and accessories. To make an intelligent purchasing decision, a consumer requires information about the various products available, as well as assistance in arriving at an appropriate type and model of bike, given the manner in which he or she is apt to use it. Much of this information is provided by full-service retailers via bicycle displays and specially trained salespeople. However, discount outlets and mail-order marketers often distribute many of the same products, without offering a commensurate level of information services, at lower retail prices. Consequently, free riding activity in this market is distinctly possible. Indeed, many manufacturers appear to attempt to combat the problem by, for example, setting "manufacturers' suggested retail prices" to discourage price cutting, and imposing a degree of territorial exclusivity in retail networks. Nevertheless, some free riding certainly does occur, with the result that the information services offered by full-service dealers are, in all likelihood, insufficient from both the

manufacturer's and the consumer's point of view.

In this setting, a variety of information entrepreneurs have developed products and services to help fill the information gap spawned by retail free riding. For example, magazines, books, and cable television programming all provide consumers with information about bicycles and bicycling. A host of magazines appear on the shelves of any newsstand covering bicycle racing and mountain biking. For more general information, a variety of books describe the different kinds of bicycles available in the market today, and offer advice to consumers regarding which type of bicycle might be most appropriate. Sports channels on cable television regularly televise both road and mountain bike races. All of these media are potentially important sources of information for anyone imperfectly informed about the products offered in today's bicycle market.

The number and variety of information entrepreneurs will vary with the product's value and complexity. Consumers of expensive, complicated, and highly technological products are apt to demand more information than the purchasers of less inexpensive, mundane products. Though product information is important for potential buyers of both computers and running shoes, for example, the demand for computer information is likely to exceed in depth and breadth the demand for information about running shoes. Thus, while one can obtain information about running shoes and computers from different magazine publications, information entrepreneurs have developed an assortment of additional information services—e.g., seminars and other classroom offerings—directed toward computer purchasers.

The ability of third-party entrepreneurs to offer successful information services depends critically on how quickly the information they provide depreciates. If the manufactured products in question are relatively stable—they do not change significantly over time—then consumers will quickly reach the point where the marginal cost of additional information acquisition exceeds the marginal benefit, and any market for information services will soon evaporate. However, if the product of concern is in a steady state of flux—that is, if the product is regularly altered, or if new and improved versions are constantly appearing on the market—then information entrepreneurs can provide a regularly updated stream of information services which the information-consuming public will readily demand. Indeed, if one subscribes to the market

process view of imperfect competition,[10] most manufacturers, seeking to better satisfy evolving consumer wants and desires, will constantly update their products' qualities and characteristics. This view suggests that, at least in many contexts, markets will persist for the services provided by information entrepreneurs.

Market Process

The most oft-cited and influential analyses of vertical restraints as ammunition against retail free riding are neoclassical equilibrium models. In addition to overlooking the roles played by knowledge and entrepreneurship, these analyses ignore the competitive market process so essential to a thorough understanding of the free riding problem. In reality, a consumer neither enters the market as the *tabula rasa* many models initially assume, nor remains in the fully informed state of final equilibrium many of these very same models eventually reach. Instead, a consumer's knowledge base is in a constant state of flux, as he discovers new information, and forgets some as well. Neither is the relevant pool of information stable. New knowledge is constantly available, and other information becomes obsolete. To truly understand the retail free riding problem, one must at least acknowledge the dynamic process of knowledge acquisition.

Manufacturers themselves often respond to the evolving state of consumer information. Recognizing that many of their traditional customers have, over time, accumulated a body of knowledge about their products and services sufficient to make much of the information provided by traditional retailers unnecessary, Apple Computer, Inc. recently expanded their operations into the mail-order business, distributing a catalog offering for sale a wide variety of Apple hardware and software products. The company also seemed to address those consumers at the opposite end of the knowledge-base spectrum—people with little aversion to remaining relatively ignorant of personal computers and their workings. Apple's Performa™ line of machines, bundled with special software which make the computers easier, but less flexible, to use are distributed through discount outlets and department stores. Both of these distribution expansions reflect changes in the knowledge bases of consumers, and in the process by which they acquire information. Neither move enamored Apple with its traditional retailers, but market

forces required the company to respond to the changing states of consumers' knowledge and preferences.

Information entrepreneurs must compete against one another, as well as with the information services provided by retailers and/or manufacturers. In the competitive market process, entrepreneurs offer a constantly changing information package, trying to better serve consumer demands and responding to evolving consumer knowledge bases. In many ways, the information provided by third party information entrepreneurs is likely to be superior to that offered by traditional retailers. While the information supplied by retailers is primarily ancillary to the actual product being distributed, the product being marketed by the information entrepreneur is the *information itself*. A retailer might consummate a transaction even if the information services offered there are quite poor. Information entrepreneurs are not so fortunate. Because the product *is* the information, inferior quality information translates directly into reduced sales. Furthermore, because the services offered by entrepreneurs often include information on the products of a number of manufacturers, the information is less likely to be biased than that offered by retailers, who many have an incentive to steer consumers towards those brands for which the dealer receives the largest retail margin.

Moreover, the competition between traditional retailers usually is constrained to some extent by transportation costs. Dealers generally only compete against other retailers within a relatively small geographic proximity. In the extreme case of exclusive territories, competition between dealers is virtually eliminated. Information entrepreneurs, on the other hand, are typically able to compete in a larger range of markets, since their products are often broadly available via bookstores, newsstands, mail services, electronic networks, or public broadcast spectrums. Because the competition between information entrepreneurs is more intense than the competition between retailers, the information products supplied by third-party entrepreneurs are likely to be of a higher quality.

This is not to say that all information is best provided by information entrepreneurs. Rather, the competitive market process will tend to impose efficiency in information distribution. At any point in time, the types of information most productively provided by retailers will tend to be supplied by them. Market forces will discipline entrepreneurs to offer the information services that they can more efficiently supply. And the mix

between all types of information providers will constantly sway, reflecting changes in consumer demands and the state of consumer knowledge. In short, the competitive market process will determine which information will be provided by whom.

The Welfare Debate

Even though both RPM and exclusive territories can at least partially solve the retail free riding problem, they are currently subject to different legal treatments. Vertical price restrictions, including RPM, are technically *per se* violations of the antitrust laws, although manufacturers may legally engage in activity which is nearly indistinguishable from RPM.[11] Vertical non-price restraints, including exclusive territories, are presently judged under the more lenient rule-of-reason standard.[12] Much of the public policy debate over the retail free riding problem has concentrated on this disparity in legal treatments, and, in particular, on the seemingly overly stringent *per se* standard applied to RPM.[13]

Central in this debate is the effect RPM has on retail prices and, therefore, social welfare. Opponents of RPM argue that the practice, by artificially precluding price reductions, raises retail prices to consumers and therefore reduces welfare. RPM proponents counter that the larger retail margin, necessary for retailers to pay for information services, comes from lower wholesale prices, not higher retail prices. Furthermore, because RPM increases the information available to consumers via retailers, welfare is enhanced.

Using prices as a barometer for welfare and efficiency, however, requires an interpersonal comparison between the benefits and costs to consumer and producer. Since these benefits and costs are subjective, such a comparison is meaningless. Buchanan provides a more sensible approach to analyzing the welfare properties of vertical restraints and other activities: any activity, institution, or legal rule which facilitates mutually advantageous, voluntary exchange is efficient, or welfare-enhancing.[14]

The information entrepreneur measures up particularly well using Buchanan's welfare yardstick. When the retail free riding problem is solved by vertical restraints, and information is only provided by dealers, the consumer is forced to pay for information services, via the elevated retail price, whether he or she desires them or not. By unbundling the information from the

product, the information entrepreneur makes the information available to the consumer without forcing all consumers to pay for information dissemination. Those consumers who demand information services are free to purchase them. Those who prefer to remain rationally ignorant or who already possess sufficient knowledge are not forced to subsidize information collection and dissemination.

Furthermore, by marketing the information products directly to the consumer, the information entrepreneur is likely to reduce consumer search costs, and therefore the effective price paid by consumers. Information provided by retailers nearly always necessarily entails a trip to the dealer. The transportation costs and the opportunity costs of the time forgone to acquire this information can be substantial, especially when a number of dealers are visited. Information entrepreneurs, on the other hand, typically deliver the information services directly to the consumer. Although they entail their own prices, acquisition costs are apt to be minor.

The information entrepreneur, therefore, is clearly a welfare-enhancing actor. Yet his place in the welfare debate over the retail free riding problem is notoriously absent. The welfare discussion should be expanded to include the roles played by the information entrepreneur and the institutions that affect how well he can perform his tasks. For example, the establishment of property rights in information influences the types of products and services the information entrepreneur can provide in a competitive market. By more concretely defining such rights, the third-party information provider can develop his products in a less uncertain environment. In general, attention in the debate should be paid to institutions and legal rules which affect the ability of the information entrepreneur to engage in his welfare-enhancing activities.

Conclusion

Despite a revival of Austrian economics since the middle 1970s, the school has made insufficient progress in injecting its ideas into mainstream economic thought. In a recent paper expanding on his work on the competitive market process, Kirzner conveys the sentiments of many Austrians: “Although this fundamental difference (between the perfectly competitive model and the competitive market process) has been articulated by the Austrians now for several decades, there has been

disappointingly little impact upon mainstream contemporary theory."[15] This failure may be due in part to an overly zealous concentration on theory at the expense of application. Indeed, W. Duncan Reekie largely agrees with this lament in his commentary on Kirzner's article,

> students want either to study industrial organization and normative implications thereof for public policy toward business, or they want to study managerial economics to obtain normative insights on how to maximize profits. . . . To a degree, this coupling of student demands into "relevancy" and "low cost" may be mutually inconsistent; but that is the nature of the market and if we fail to meet this demand we, of all people, should not be surprised if others step in to fill it. . . . I believe Austrians have been frightened that . . . they will fling the baby out with the bathwater, but, in fear of doing so, the bath has gone cold and the baby is freezing to death.[16]

In this paper, I have attempted to respond to this criticism by applying well established Austrian economic notions to retail free riding, a significant problem in industrial organization. Examining the problem from an Austrian perspective reveals that the traditional neoclassical analysis ignores many of the most salient characteristics of the issue, and that much of the public policy debate on retail free riding is substantially misguided. If Austrian economists continue to illustrate that their principles provide insight into everyday economic applications beyond that generated by mainstream economic thinking, perhaps the Austrian school will eventually make much needed inroads into mainstream economic thought.

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[1] See the thorough examination in Robert B. Ekelund and David S. Saurman, *Advertising and the Market Process: A Modern Economic View* (San Francisco: Pacific Research Institute for Public Policy, 1988).

[2] See, for example, the discussion of the case involving Lenox china in V. Goldberg, “Enforcing Resale Price Maintenance: The FTC Investigation of Lenox,” *American Business Law Journal* 18 (1980): 225–58; and H. P. Marvel and S. McCafferty, “Resale Price Maintenance and Quality Certification,” *Rand Journal of Economics* 15 (1984): 346–59; or

S. Oster, "Levi Strauss," in *Impact Evaluations of Federal Trade Commission Vertical Restraints Cases*, R. N. Lafferty, R. H. Lande, and J. B. Kirkwood, eds. (Washington, D.C.: Federal Trade Commission, 1984), an examination of the case of Levi Strauss jeans.

[3] Technically, RPM is a *per se* violation of the antitrust laws, under the standard set forth in *Dr. Miles Medical Company* v. *John D. Park & Sons Company*, 220 U.S. 373 (1911). The Supreme Court has, however, over the past few years, significantly narrowed the scope of *per se* illegal activity. See the Court's decisions in *Monsanto Company* v. *Spray-Rite Service Corporation* (1984) and *Business Electronics Corporation* v. *Sharp Electronics Corporation* (1988). In *Monsanto*, the Court ruled that a *per se* violation could not be inferred solely from evidence that a manufacturer had terminated a price-cutting distributor after having received complaints from the distributor's competitors. In *Sharp*, the Court went even further, holding that an agreement between a manufacturer and a dealer whereby the manufacturer would terminate any price-cutting dealer was not the same as an RPM agreement. Rather, *per se* illegality required an agreement between the manufacturer and all dealers. For a thorough legal history of RPM, see T. R. Overstreet, *Resale Price Maintenance: Economic Theories and Empirical Evidence* (Washington, D.C.: Federal Trade Commission, 1983); P. Ippolito, *Resale Price Maintenance: Economic Evidence from Litigation* (Washington, D.C.: Federal Trade Commission, 1988); or M. C. Katz, "Vertical Contractual Relations," in *Handbook of Industrial Organization*, Richard Schmalensee and Robert W. Willing, eds. (New York: North Holland, 1989).

[4] A number of authors have written on these and other justifications for RPM. See, for example, the classic works of B. Yamey, "Origins of Resale Price Maintenance: A Study of Three Branches of Retail Trade," *Economic Journal* 62 (1952): 552 and *Resale Price Maintenance*, Yamey, ed. (Chicago: Aldine Publishing, 1966); or, more recently, G. F. Mathewson and R. A. Winter, "An Economic Theory of Vertical Restraints," *Rand Journal of Economics* 15 (1984): 27–38; or S. I. Omstein, "Resale Price Maintenance and Cartels," *The Antitrust Bulletin* 35 (1985): 1–18; on the collusion theories, W. S. Bowman, "The Prerequisites and Effects of Resale Price Maintenance," *University of Chicago Law Review* 22 (1955): 825; or R. E. Caves, "Vertical Restraints as Integration by Contract: Evidence and Policy Implications," Harvard Institute of Economic Research Discussion Paper No.

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[5] Ippolito, *Resale Price Maintenance: Economic Evidence from Litigation*.

[6] See, David W. Boyd, "The Choice Between Resale Price Maintenance and Exclusive Territories," *Review of Industrial Organization* 8 (1993): 755–63, for a more extended analysis of residual *free* riding under RPM.

[7] Ludwig von Mises, *Human Action* (Chicago: Henry Regnery, 1966), p. 378.

[8] James M. Buchanan, "What Should Economists Do?," *Southern Economic Journal* (1964): 213–223.

[9] Israel M. Kirzner, *Competition and Entrepreneurship* (Chicago: University of Chicago Press, 1973), p. 152.

[10] Ibid., pp. 112–19.

[11] See note 3 above.

[12] The current legal standard to be applied to vertical non-price restraints is set forth in *Continental TV, Inc*. v. *GTE Sylvania, Inc*., 433 U.S. 36 (1977).

[13] See the exchange between David W. Boyd, "The Resale Price Maintenance Struggle: A Comment," *American Journal of Economics and Sociology* (October 1993): 447–54 and Anthony J. Greco, "Response of Professor Anthony J. Greco," *American Journal of Economics and Sociology* (October 1993): 454–58.

[14] James M. Buchanan, "Introduction: L. S. E. Cost Theory in Retrospect," in *L. S. E. Essays on Cost*, Buchanan and G. F. Thirlby, eds. (New York: New York University Press, 1981).

[15] Israel M. Kirzner, "The Driving Force of the Market: The Idea of 'Competition' in Contemporary Economic Theory and in the Austrian Theory of Market Process," in *Austrian Economics: Perspectives on the Past and Prospects for the Future*, Richard M. Ebeling, ed. (Hillsdale, Mich.: Hillsdale College Press, 1991), p. 139.

[16] W. Duncan Reekie, "The Driving Force of the Market: The Idea of 'Competition' in Contemporary Economic Theory and in the Austrian Theory of Market Process: Commentary," in *Austrian Economics: Perspectives on the Past and Prospects for the Future*, Richard M. Ebeling, ed. (Hillsdale, Mich.: Hillsdale

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Rejoinder: Salerno on Calculation, Knowledge, and Appraisement

Leland B. Yeager

Contrary to Joseph Salerno's "Reply" (1994), my article (1994) did not try to specify what Professors Salerno, Rothbard, and Herbener mean by "calculation." I did not say that they "equate calculation and arithmetic" (Salerno 1994, p. 116). Instead, I implicitly raised the *question* of what they might mean. I did so by pursuing my avowed main purpose, namely, to challenge their attempted dichotomy between the "calculation" and "knowledge" problems of socialism. I further challenged their suggestion that Ludwig von Mises was concerned only with the non-knowledge aspects of the calculation problem.

Salerno now focuses attention on "appraisement." In the capitalist market process but not under socialism, every scarce resource receives an appraisement "reflecting its relative importance in serving (anticipated) consumer preferences" (p. 112). The market process "transforms the substantially qualitative knowledge about economic conditions acquired . . . by competing entrepreneurs," including their estimates of consumers' subjective valuations, into "an integrated system of objective exchange ratios for the myriads of original and intermediate factors of production" (ibid.). The process operates "in the face of ceaseless change of the economic data" (p. 113). "[D]ispersed knowledge is not a bane but a boon to the human race; without it, there would be no scope for the intellectual division of labor, and social cooperation under division of labor would, consequently, prove impossible" (pp. 114–15). In the capitalist process, as Rothbard says in a passage that Salerno quotes (p. 115), "the entrepreneur is able to appraise and estimate future costs and prices. In the market economy, *qualitative* knowledge can be transmuted, by the free price system, into rational economic calculation of *quantitative* prices and costs."

Correctly interpreting Mises, Salerno writes "that the market creates a social appraisement process . . . which depends

crucially on an intellectual division of labor featuring the qualitative *understanding* of competing entrepreneurs; and . . . that this process is indispensable for converting the multidimensional knowledge of the economic data, regardless of who possesses this knowledge or where it is located, into a unitary structure of meaningful resource and product prices" (p. 120). Salerno goes on to emphasize "entrepreneurial forecasting" and "dynamic appraisement" (p. 122).

All this emphasis on knowledge—yes, knowledge—is amply warranted. A further point that Salerno makes at least implicitly is worth underlining: much relevant knowledge is of a kind that simply could not be quantified or articulated except through the market process. Often an entrepreneur makes business decisions partly on his intuition or feel for technology, the attitudes and tastes of consumers and workers, sources of financing, and conditions in markets for inputs and for consumer goods and services—all in the future as well as the present. The entrepreneur receives information for judgments about such matters by reading specialized and popular publications, watching television and movies, experiencing various services and products personally, chatting with innumerable people, and strolling through town or the shopping mall. Much of what he thereby observes—or senses—he could not express in explicit words or numbers. A socialist system would let much such entrepreneurial knowledge go to waste even if it somehow emerged in the first place. The market system of profit and loss tends, as Mises said, to expand or shrink the roles of particular entrepreneurs according as they are relatively good or relatively poor in acquiring and using even these subtle and conjectural kinds of knowledge.

I forgo correcting several of Salerno's conjectures about my own position, mind-set, and standards of scholarship because his conjectures are peripheral to the issue at hand. My central point is that Mises was indeed concerned with the capitalist market process of mobilizing, articulating, and quantifying knowledge that socialism simply could not duplicate or replace. On any reasonable interpretation of exactly what calculation means in debates over socialist calculation, it is closely bound up with the development and use of knowledge. One ill-serves Mises's reputation and ill-serves wide understanding of momentous issues by insisting on some conception or other of calculation from which all knowledge aspects have been severed.

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A Final Word: Calculation, Knowledge, and Appraisement

Joseph T. Salerno

Leland Yeager's rejoinder "Salerno on Calculation, Knowledge, and Appraisement" (1996) merits a final word, because I believe it makes a subtle though very important concession to the argument made by Rothbard, Herbener, and myself regarding the function of the price system. Before addressing this issue, I will offer comments relating to two other points raised by Yeager in his rejoinder.

1. Yeager (p. 175) denies having said, in his original article (1994), that Salerno, Rothbard, and Herbener (SRH) "equate arithmetic and calculation." While strictly speaking he is correct, I believe it is a quite reasonable inference from the statements he does make when characterizing the problem confronting central planners who are endowed with perfect knowledge of the economic data. As I have discussed in my Reply (Salerno 1994, pp. 120–23), in SRH's interpretation of Mises's argument, granting the unrealistic assumption of complete and perfect information, about either present disequilibrium market conditions or the future final equilibrium state toward which the real market is tending at any moment, does not obviate the need for monetary calculation provided by the market's pricing process. Yeager (1994, p. 97) states, however, that given "the centralized availability of information," the argument against socialism "boil(s) down to a contention about arithmetic." Elsewhere, in questioning the "supposed distinction" that SRH observe in Mises's writings between calculation and knowledge, Yeager (1994, p. 94) remarks "I cannot believe Mises was merely saying that *if* the socialist planners possessed in some way all the information normally conveyed by the market prices, they still would be stymied by inability to perform *calculations* in the narrow arithmetic sense." What else could Yeager mean by these statements except that anyone who argues that Mises distinguished calculation from knowledge is indeed equating calculation with arithmetic?

2. In stating that "Salerno *now* focuses attention on 'appraisement' (the emphasis is mine)" Yeager is implying that this is a concept I originated in my Reply (Salerno 1994) and that I have, therefore, suddenly shifted the grounds of my initial argument. But in my Reply (ibid., pp. 112–15) I quote at length several passages from my earlier work on this topic, as well as from Rothbard's, in which the concept of "social appraisement" is elaborated. Far from an *ad hoc* fallback position, the notion of appraisement was at the heart of the SRH interpretation of Mises from the very beginning.

3. Finally, and most importantly, in the two consecutive paragraphs ending with the penultimate paragraph of his rejoinder, Yeager now abandons his original Hayekian position that the price system, i.e., past prices, automatically conveys to all passive producers all the knowledge that is relevant to their business decisions in a near-equilibrium world. He now concedes that "knowledge" is a primary matter of individual entrepreneurial experience, hunches, reading and personal observation, and superior forecasting of the uncertain future and whose qualitative content is therefore *not* "normally conveyed by (past) market prices." Contrary to his claim in the final paragraph of his rejoinder, then, this means that Mises's concept of economic calculation refers exclusively to the function of the price system in permitting entrepreneurs to appraise the quantitative importance of productive resources in a world where incessant change renders the future very unlike the past and current prices not directly relevant to future-oriented production plans.

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Calculation and the Question of Arithmetic

Jeffrey M. Herbener

The view that Ludwig von Mises had more in mind in his calculation critique of socialism than the Hayekian knowledge problem has recently been attacked by Leland Yeager.[1] This article addresses Yeager's central claim that,

> I cannot believe Mises was merely saying that *if* the socialist planners possessed in some remarkable way all the information normally conveyed by genuine market prices, they still would be stymied by inability to perform *calculations* in the narrow arithmetical sense, an inability that advances in supercomputers might conceivably overcome.[2]

Yeager then asserts that Joseph Salerno, Murray Rothbard, and I (SRH) claim that this is what Mises meant. If Yeager means by this assertion that we believe that this is Mises's entire calculation argument, then Salerno is correct in responding that, "it is wholly beside the point, because it rests on a gross misinterpretation of the meaning explicitly attached to the term 'calculation problem' by SRH."[3] In response to Yeager, Salerno says,

> it does not follow that, for SRH, *the* calculation problem as Mises conceived it refers narrowly to the mathematical techniques employed for manipulating the given quantitative data; it refers, instead, to the origination and meaningfulness of the data themselves. It is, in short, a problem of "appraisement" and not of "arithmetic."[4]

From this beginning point, he proceeds to cogently rebut Yeager's claim by demonstrating that entrepreneurial appraisal is not subsumed under market information.

Yet Yeager seems to imply something else in his claim that by its nature goes untouched by Salerno's rebuttal. Yeager seems

to imply that the arithmetic facet of Mises's calculation argument is trivial. This claim is not only false but is odd coming from a student of Mises's work; for Mises made several true and nontrivial arguments based solely on arithmetic or mathematics and statistics, more generally: the impossibility of interpersonal utility comparisons (lack of a unit of subjective value), the impossibility of economic calculation (inability of comparing heterogeneous units of factors of production), the impossibility of mathematical equations in economic theorizing (lack of constants in human action), and the impossibility of statistical analysis in economic theory (lack of a probability density function for the data of human action).[5] Acceptance of these *merely* arithmetic, mathematic, and statistical points destroys several major branches of orthodox economic theory: utility and welfare, socialist, mathematical, macroeconomics, and econometrics. Together these constitute a significant portion of what passes for economic thought today.

While it is true that Mises's calculation argument is not *merely* arithmetic; it is also true that it is not *merely* appraisement. Mises argued that economic calculation is a problem of both arithmetic and appraisement.[6] More precisely, Mises's calculation argument has two dimensions: the impossibility of central planners performing the arithmetic of profit and loss computation in pure socialism which, in turn, makes it impossible for them to engage in entrepreneurial appraisals necessary to give meaning to profit and loss, and, thus, rationally allocate factors of production.[7] Although information enters into the latter, it cannot enter into the former.[8]

The arithmetic facet of Mises's argument deals with the existence, or lack thereof, of a format in which information can be put and appraisals can be made. A format is necessary because the "raw data" required to answer relevant economic questions posed by the operation of a social process of exchange and division of labor are denominated in incommensurate units. Unless these units can be converted into a common standard, they cannot be compared; unless they can be compared the economic questions cannot be answered. As Mises said of one socialist scheme of economic calculation, "Calculation in kind is to be substituted for calculation in terms of money. This method is worthless. One cannot add or subtract numbers of different kinds (heterogeneous quantities)."[9] The impossibility of comparing the number of apples to the number of oranges is an

arithmetic problem; and a fundamental, not trivial, problem of arithmetic. Without its solution, no arithmetic operations can be conducted at all.

The profit and loss calculation solves the arithmetic problem inherent in answering both economic questions posed by the operation of a social process of exchange and division of labor: what consumer goods should be produced and which combination of factors of production should be used to produce each consumer good. The arithmetic problem of the first question is the incommensurability of the subjective values of different individuals who participate in the social process of exchange and division of labor. There are two dimensions to the impossibility of making interpersonal comparisons of utility: no unit can be defined for preferences since they are subjective and even if units of subjective value existed for each person, they would not be comparable from one person to another.[10]

The solution to the problem of the incommensurability of the subjective values of individuals and the answer to the question of what consumer goods should be produced to satisfy them lies in the possibility of market prices denominated in money. Consumers demonstrate their preferences for some goods relative to others by purchasing and refusing to purchase. Since all preferences are demonstrated using the same standard, viz. money, the effects of action based on these preferences, viz. money prices, are commensurate, and, therefore, formatted for meaningful economic calculation.

Entrepreneurs then impute market value to each factor of production according to its marginal value product via their demand for the factors. Factors prices are then determined by the intensity of entrepreneurial demand relative to the opportunity cost placed on them by their owners. These prices make the different units of the factors commensurate and therefore, permit entrepreneurs to efficiently allocate factors across the production of consumer goods.[11]

As a student of Mises's work, Yeager is surely familiar with his account of the relationship between the subjective values of consumers and market prices as well as the impossibility of interpersonal utility comparisons. Even for those economists, few in number and among whom one should not expect to find Yeager, who disagree with the latter claim, it would seem strange for them to characterize the problem of interpersonal utility comparisons as anything but an arithmetic problem. You can only add or subtract items of like units. This fact is both

arithmetic and non-trivial. An entire branch of economics (welfare economics) crashed to the ground on this point and another branch (utility economics) was completely revamped because of it.[12] The arithmetic dimension of Mises's calculation argument is based on the same arithmetic truth that makes interpersonal utility comparisons impossible; and recognition of this fact helps clarify and strengthen instead of, "caricature and trivialize," Mises's argument as Yeager claims.[13]

Mises understood that the question of what consumer goods should be produced can be answered by the central planners and therefore, is not a barrier to the establishment of a centrally-planned economy.[14] The planners can do this by simply substituting their preferences for the unknowable and incomparable preferences of consumers. They produce, or attempt to produce, the goods they themselves value. This solution, however, is arbitrary with reference to the preferences of consumers. These, the central planners cannot know and even if they did they could not make the relevant comparisons to determine what subset of valuable goods should be produced to the exclusion of other goods consumers find valuable. Central planners with perfect information of consumer preferences still could not calculate what to produce to satisfy such preferences because they are ordinal rankings and therefore, cannot be compared. Even if central planners had perfect information of the subjective values of each individual denominated in units, they could not perform economic calculation because it is impossible to compare any items that are denominated in dissimilar units. Only if the central planners knew how to convert the subjective units of each individual into a common standard would they be able to perform this part of economic calculation.

The central arithmetic facet of Mises's calculation critique is the incommensurability of the different factors of production that could be combined in different ways to produce each consumer good. Hours of labor cannot be compared to acres of land nor can these units be compared to units of each capital good. As Mises, discussing his example of central planners contemplating building a railroad, wrote in 1920, "Where one cannot express hours of labor, iron, coal, all kinds of building material, machines and other things necessary for the construction and upkeep of the railroad in a common unit it is not possible to make calculations at all. The drawing up of bills on an economic

basis is only possible where all the goods concerned can be referred back to money."[15] Nearly thirty years later, he wrote,

> The director wants to build a house. Now, there are many methods that can be resorted to. . . . Which method should the director choose? He cannot reduce to a common denominator the items of various materials and various kinds of labor to be expended. Therefore he cannot compare them. . . . In short, he cannot, in comparing costs to be expended and gains to be earned, resort to any arithmetical operation.[16]

Concerning the pricing process of the market by which economic calculation solves the problem of incommensurability, Mises concluded that socialism cannot reduce the value of the means of production to "the uniform expression of a money price." In a market economy, "all prices can be referred back to a common expression in terms of money."[17]

If there were no arithmetic facet of this "common expression in terms of money," (contrary to Mises's explicit statement that there is) then the problem of economic calculation would not exist since the planners could discover the value of each factor in each use by withdrawing it.

Mises summed up the problem of calculation in socialism by saying, "In the main, socialist production might only appear rationally realizable, if it provided an objectively recognizable unit of value, which would permit of economic calculation in an economy where neither money nor exchange were present."[18] If this problem has no *merely* arithmetic facet, then why did socialists struggle to employ the labor theory of value to solve it? Mises finished the quote above by saying, "And only labor can conceivably be considered as such." But, why not perform economic calculation in all factors of production at once claiming each of them to have intrinsic value and thereby dispense with the search for a "socially necessary" amount of labor, i.e., a common unit of labor in which all factors can be rendered? The existence of cardinal units is not sufficient for economic calculation to be performed. One cannot add together factors denominated in incomparable cardinal units, nor compare the efficiencies stated in cardinal numbers, e.g., the average product of labor with the average product of capital, of different factors of production. The task of economic calculation requires, in addition to cardinal units, a method by which the different

units can be transformed into a common cardinal unit.[19] If it is not necessary to have a common objective unit in which all factors can be meaningfully compared, then a large part of the debate about the labor theory of value was so much spilled ink.

Yeager's contention about the arithmetic facet of Mises's argument makes it neither erroneous nor trivial. To the contrary, it is both correct and devastating to naive socialists who believe that the economic problem of factor usage can be solved by central planners in the absence of profit and loss calculation based on monetary prices, i.e., in pure socialism, including those who think the problem could be solved by "advances in super-computers."

It is only to defeat those socialists who wish to enter the debate on economic theory that Mises moves to more complex dimensions of his calculation argument.[20] To the assertion that socialism can overcome the incommensurability of different factors by having central planners set monetary prices for all goods and factors, Mises responds that the problem is calculation of objective value, not objective units *per se*. Such a procedure would not solve the allocation problem since it leads to a "solution" that is arbitrary even from the viewpoint of the central planners, let alone that of consumers. The problem of factor usage cannot be solved by having the central planners assign a monetary wage to be multiplied by labor hours, and so on for each factor, so that the monetary costs of different combinations of factors capable of producing a given consumer good can be compared and the least cost method selected. Such cost calculations have no relationship to the preferences placed on the consumer goods and therefore, are useless for economic calculation. Only the market process can connect the value of factors to the value of consumer goods in a meaningful way.

Mises demonstrates this point by allowing that a socialist state could have a medium of exchange, limited in its scope to trading in some consumer goods. But, as he said,

> where the means of production are state controlled . . . because no production good will ever become the object of exchange, it will be impossible to determine its money value. Money could never fill in a socialist state the role it fills in a competitive society in determining the value of production goods. Calculation in terms of money will here be impossible.[21]

To the assertion that the central planners can overcome the arbitrary nature of prices set by their own decree by having the managers of state-operated production facilities act as if they were entrepreneurs engaged in trade, Mises argues that one cannot "play" market.[22] For entrepreneurial competition to perform the function of factor evaluation, the possibility of bearing the opportunity costs of different factor allocations must be real. Only with private property can entrepreneurs and capitalists risk their own wealth in the process of social production and therefore be in a position to make accurate appraisals of factor values.[23][24] To argue that play acting could mimic the results of the market was to confuse the functions of management with those of entrepreneurship.

> One cannot *play* speculation and investment. The speculators and investors expose their own wealth, their own destiny. This fact makes them responsible to the consumers. . . . If one relieves them of this responsibility one deprives them of their very character. They are no longer businessmen, but just the group of men to whom the director has handed over his main task, the supreme direction of the conduct of affairs. Then they—and not the nominal director—become the true directors and have to face the same problem the nominal director could not solve: the problem of economic calculation.[25]

To the assertion that the central planners can overcome the "game-playing" nature of market socialism by using the pre-existing market set of prices, i.e., those prices existing in the capitalist system just prior to socialization, Mises argues that the transition from capitalism to socialism is too fundamental for the old prices to bridge the gap and that pricing must be "dynamic" since underlying economic phenomena are constantly changing. By destroying the differences in wealth in the existing market economy when expropriating private property, socialism disconnects the prices that correspond to those inequalities with the different conditions now prevailing for which calculations must be made. Moreover, any changes in conditions that underlie the economic allocation of factors makes the existing set of prices obsolete, and all the more so the greater the extent of such changes.[26]

Furthermore, as Salerno pointed out, Mises understood that answering the economic questions of what and how to produce

requires entrepreneurs to correctly project appraisals of goods and factors into the future.[27] Since the data are continually changing, static modeling cannot be substituted for entrepreneurs to perform economic calculation. Comparative statics serves no better since it cannot determine how human action moves the solution from one point to another.[28]

Moreover, general equilibrium is irrelevant to the actual problem that economic calculation must solve and that can be done so only by entrepreneurial activity. Neither the actual prices, both present and future, nor the preferences necessary for factor allocations to be made have any relationship to those of equilibrium. As Mises said, "what impels a man toward change and innovation is not the vision of equilibrium prices, but the anticipation of the height of the prices of a limited number of articles as they will prevail on the market on the date at which he plans to sell."[29]

General equilibrium equations are formed by knowing the constants of those equations, under the assumption that no further change in the data is permissible. Without the assumption of no further changes, no constants exist and no equations can be formed. Yet, the economic system cannot achieve, or move toward, the equilibrium without changes from the existing set of data. The equations are, thus, useless for the task of allocating factors of production toward their general equilibrium uses. As Mises said, "What acting man needs to know is not the state of affairs under equilibrium, but information about the most appropriate method of transforming, by successive steps, [the total supply of produced factors allocated as they are today] into [the total supply of produced factors allocated as they need to be in equilibrium], With regard to this task the equations are useless."[30]

Even if the central planners had full knowledge of the state of general equilibrium and could see how to move production from original factors to the final equilibrium state, this would not suffice to circumvent the problem that only economic calculation can solve. The existing state of production does not correspond to any state of this perfect-knowledge production process. Existing capital goods embody past allocation errors relative to their perfect knowledge uses. Since these capital goods can neither be freely transferred into other uses nor transferred efficiently without taking account of their existing characteristics, central planners with perfect knowledge would still need to resort to economic calculation to properly allocate

them. Mises concludes his discussion of economic calculation at this step where no recourse is made to the arithmetic facet of the argument when viewed in its entirety.[31]

Instead of realizing the logical construction of Mises's argument—beginning with its arithmetic facet and then in turn allowing, for the sake of argument, that the central planners can overcome progressively more difficult aspects of the calculation problem—Yeager implies that SRH assume that Mises was conceding that the central planners could solve these problems. Yeager says,

> The necessary preparations for the vast central calculation, let alone the calculation itself, could *not* be accomplished; they are, to use Mises's word, "impossible." It seems perverse, then, to interpret Mises as nevertheless conceding the possibility of all those preparations and of balking only at the possibility of the calculation itself.[32]

But Mises did not concede that a "preparation" or "information" problem could be solved by the central planners in the actual operation of socialism. He conceded the solution to these problems, *for the sake of argument*, for the very purpose of demonstrating that his calculation argument proved the impossibility of economic calculation, *even if these problems were solved*. The fact that he chose this method of argumentation is proof that his calculation argument has more to it than just the lack of information available to central planners.

In fact, Mises "concedes" much more than the solution to the "information" problem, in the final step of his argument. If Yeager has this perfect-information scenario in mind in his quote at the beginning of this article, then he misstates Mises's hypothetical conditions (under which there is no arithmetic facet of the argument). Mises is not, here, assuming that the central planner has perfect information and *therefore*, can perform economic calculation, as Yeager implies in his quote. Mises is assuming that the central planner has "miraculously" solved the problems of economic calculation—not just information but calculation itself—and could therefore construct a perfect production structure over time, starting without any capital goods, to achieve some final equilibrium state. Even if the central planners had perfect information and the ability to calculate with that information, however, they still could not calculate how to effectively operate any actual existing economy they are

attempting to control.

If Yeager means what he seems to say—that Mises could not have meant that a central planner with perfect information about preferences and factor conditions could not perform the arithmetic operations necessary to calculate—then he is wrong; for this is precisely the first step of Mises's argument demonstrating the impossibility of economic calculation in the socialist commonwealth.[33]

On the importance of the arithmetic aspect of the economic calculation, Mises said,

> every action can make use of ordinal numbers. For the application of cardinal numbers and for the arithmetical computation based on them special conditions are required. These conditions emerged in the historical evolution of the contractual society. Thus the way was opened for computation and calculation in the planning of future action and in establishing the effects achieved by past action. Cardinal numbers and their use in arithmetical operations are also eternal and immutable categories of the human mind. But their applicability to premeditation and the recording of action depends on certain conditions which were not given in the early state of human affairs, which appeared only later, and which could possibly disappear again . . .
>
> Modern civilization is above all characterized by the fact that it has elaborated a method which makes the use of arithmetic possible in a broad field of activities. This is what people have in mind when attributing to it the—not very expedient and often misleading—epithet of rationality.[34]

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[1] Leland Yeager, "Mises and Hayek on Calculation and Knowledge," *Review of Austrian Economics* 7, no. 2 (1994): 93–

109. Also, Israel Kirzner asserts that the Mises and Hayek contributions to the calculation debate, "are simply ways of expounding the same basic, Austrian insight, viz., that only market processes are able to harness the *discovery* potential of entrepreneurial competition." Italics in the original, see Israel Kirzner, "Book Review of *Hayek, Coordination and Evolution*," *Southern Economic Journal* 61, no. 4 (April 1995): 1244. If Kirzner is correct, it would seem that Mises and Hayek were both Kirznerians and the entire calculation debate was a debate about Kirzner's concept of entrepreneurship. On his concept of entrepreneurial discovery, see Israel Kirzner, *Competition and Entrepreneurship* (Chicago: University of Chicago Press, 1973) and *Discovery and the Capitalist Process* (Chicago: University of Chicago Press, 1985).

[2] Yeager, "Mises and Hayek," p. 94. Italics in the original.

[3] Joseph Salerno, "Reply to Leland B. Yeager on 'Mises and Hayek on Calculation and Knowledge,'" *Review of Austrian Economics* 7, no. 2 (1994): 112.

[4] Ibid. Italics in the original.

[5] Mises discusses each of these points in *Human Action: A Treatise on Economics* (Chicago: Henry Regnery, [1949] 1966).

[6] I am not asserting that Salerno fails to understand or appreciate the arithmetic facet of Mises's concept of calculation. He mentions it twice in his "Reply to Yeager," (pp. 112 and 120) and it is this point that Yeager himself notices in Salerno's work. My contention is only that proper recognition of this facet of Mises's argument also defeats the Yeager position.

[7] By the phrase, "impossibility of performing the arithmetic of profit and loss computation," we do not have in mind what Yeager seems to accuse us of meaning. As Salerno says, "the Misesian demonstration of the logical impossibility of socialism is not predicated on the central planners' incapacity to perform tasks that can conceivably be carried out by individual human minds," including adding and subtracting. See Salerno, "Reply to Yeager," p. 112. The arithmetic problem of calculation is not the inability to add common units together, it is the absence of such units. No "advances in supercomputers" can overcome the impossibility of adding together apples and oranges.

[8] These two steps correspond to the two conditions Mises claimed were necessary for calculation to take place: voluntary exchange of all goods including factors of higher order and the use in these exchanges of money. The first is necessary to bring

higher-order capital goods under the orbit of the entrepreneurial "intellectual division of labor"; the second is necessary because without it, "It would not be possible to reduce all exchange-relationships to a common denominator." See Ludwig von Mises, *Economic Calculation in the Socialist Commonwealth* (Auburn, Ala.: Ludwig von Mises Institute, [1920] 1990), pp. 17–18.

[9] Ludwig von Mises, *Human Action*, p. 703.

[10] As Mises said, "In an exchange economy the objective exchange value of commodities enters as the unit of economic calculation. This . . . renders it possible to base the calculation upon the valuations of all participants in trade. The subjective use value of each is not immediately comparable as a purely subjective phenomenon with the subjective use value of other men. It only becomes so in exchange value, which arises out of the interplay of the subjective valuations of all who take part in exchange." Mises, *Economic Calculation*, p. 12.

[11] Ibid., p. 23.

[12] The old welfare economics and utility economics were based on the concept of cardinal utility which embodied two arithmetic mistakes: units of subjective value are possible and such units are interpersonally comparable. See Murray N. Rothbard, "Toward a Reconstruction of Utility and Welfare Economics," in *On Freedom and Free Enterprise*, Mary Sennholz, ed. (Princeton: Van Nostrand, 1956), pp. 224–62.

[13] Yeager, "Mises and Hayek," p. 94.

[14] Mises, *Human Action*, pp. 695–98.

[15] Mises, *Economic Calculation*, p. 25.

[16] Mises, *Human Action*, p. 698.

[17] Mises, *Economic Calculation*, pp. 23–24.

[18] Ibid., p. 33.

[19] These two issues, the existence of cardinal units and the existence of a common denominator into which the various cardinal units can be put, are analogous to the two dimensions of the impossibility of making interpersonal comparisons of utility discussed above.

[20] Mises moves to some of these steps, in a different order than that presented here, when addressing a list of suggestions for socialist economic calculation in *Human Action*, pp. 703ff.

[21] Mises, *Economic Calculation*, p. 6.

[22] Mises, *Human Action*, pp. 707–9.

[23] Mises, *Economic Calculation*, p. 28.

[24] One particular target Mises aimed at was the "market socialism" of Oskar Lange in his, "On the Economic Theory of

Socialism," reprinted in *On the Economic Theory of Socialism*, vol. 2, Benjamin Lippincott, ed. (Minneapolis: University of Minnesota Press, 1938), pp. 57–129. Yeager, in using the debate between Mises and Lange as the text for criticizing the SRH view, reveals the source of his lack of appreciation for the arithmetic facet of Mises's calculation argument. See Yeager, "Mises and Hayek," pp. 103ff. Mises had no need to mention the arithmetic problem in response to Lange; market socialism overcomes that problem by employing money—the common denominator necessarily absent in a pure socialist system—and money prices. Mises was, thus, required to move to more complex dimensions of his calculation argument and criticize market socialism for its inability to perform entrepreneurial appraisals based on money prices which are not established in market exchanges of private property.

Because Rothbard fails to mention the arithmetic facet of calculation but does mention information in discussing the debate between Mises and Lange, Yeager attempts to construe Rothbard as once holding the Yeager position and then shifting to the SRH view. See Yeager, "Mises and Hayek," p. 106. But Rothbard had no more reason to mention the arithmetic facet of calculation in this context than did Mises. Moreover, neither Mises, nor Salerno, nor Rothbard, nor I claim that the central planners do not face an information problem. The SRH claim is that Mises's calculation argument has more to it than the information problem. Yeager's claim that it does not is not proven by noting that Mises and SRH recognize information as a problem.

[25] Ibid., p. 709. Italics in the original.

[26] Mises, *Economic Calculation*, pp. 25–26.

[27] Salerno, "Reply to Yeager," pp. 120–23.

[28] Mises, *Human Action*, pp. 710–11.

[29] Ibid., p. 711.

[30] Ibid., pp. 712–13.

[31] Ibid., pp. 713–14.

[32] Yeager, "Mises and Hayek," p. 101. Italics in the original. Also, see his other statements on Mises's concessions, pp. 97–98.

[33] Mises explicitly made these assumptions in the development of his calculation argument. In addition to the statements already quoted, see Mises, *Human Action*, p. 696.

[34] Ibid., p. 199.

Keynes Was a Keynesian

Roger W. Garrison

The State of Interpretation of Keynes
Edited by John B. Davis
Boston: Kluwer Academic Publishers, 1994

A half dozen papers together with formal comments and an introduction have been assembled to help establish the state of interpretation of Keynes. The contributors to this volume are ideologically like-minded but geographically diverse (Australia, Brazil, Canada, Great Britain, Italy, and the United States are represented). Their book, whose title belies a certain narrowness of focus, is not for everyone; it reflects the concerns of one particular Keynesian school, best described, in my judgment, as Post Keynesian fundamentalism.

Academics who continue to be amused and intrigued with the still-growing literature on the economics of John Maynard Keynes have had to learn to distinguish among the several different schools that draw inspiration from the master. Hyphenated or adjectival Keynesianism includes, for instance, both Neo-Keynesianism, which is based on an assumed wage and price stickiness, and New Keynesianism which attempts to explain the stickiness. Neo- and New Keynesianism share certain methodological presuppositions with Neo- and New Classicism but do not share in the judgment that markets are generally self-equilibrating. Interpreters who prefer to blend Keynes's ideas with those of the old classical school, which featured a cost-based production theory, have adopted "post" as their adjective of choice. Readers of this literature have been asked to maintain a distinction between Post Keynesianism and Post-Keynesianism —a distinction as subtle as the difference in labeling.[1] But whatever the particular labeling, most interpreters have come to see as virtual opposites *Keynesian Economics and the Economics of Keynes*, as contrasted in the title of Axel Leijonhufvud's 1968 book.

Murray Rothbard used to proclaim gleefully that "Keynes was a Keynesian."[2] He took great pleasure in the irony that by

so proclaiming he set himself apart from most all modern interpreters. Keynes favored monetary manipulation and fiscal activism, deficit finance and income redistribution, all for the purpose of spending our way out of depression. When his attention turned from short-run policy to long-run reform, his enthusiasm for these stop-gap measures gave way to his anticipations of a future utopia—and to schemes for ensuring and hastening its arrival. The inherent uncertainty of the future, in his view, gave centralized decision making a clear advantage over the decentralization that characterizes market economies. Keynes advocated the "socialization of investment" and the "euthanasia of the rentier." The rate of interest, which "rewards no genuine sacrifice," could and should be driven to zero, at which point capital would cease to be scarce and the distribution of income would be more equitable. In a matter of two generations, the economic problem of scarcity can be solved, such that our grandchildren can occupy themselves with questions of aesthetics rather than questions of economics.[3] This is the uninterpreted Keynes.

Post Keynesians emphasize Keynes's vision of utopia and the associated reform proposals almost to the exclusion of his diagnosis of depression and prescription of short-run demand-management policies. In fact, standard textbook Keynesianism, whose graphics and equations make the case for monetary and fiscal activism, are repeatedly described in the Davis volume as "bastardized Keynesianism" (Joan Robinson's term) so as to provide an appropriate contrast with the more radical Keynesianism adopted by the volume's contributors. If Post Keynesians did nothing but embrace these utopian aspects of Keynes, they would more accurately be described as Keynesian fundamentalists. But they do more. They add to the chronic demand deficiencies featured in Keynes's *General Theory* the ideas about supply first articulated by the classical economists and subsequently exhumed by Piero Sraffa just before the Keynesian Revolution. Sraffa's *Production of Commodities by Means of Commodities*, written during the 1930s though not published until 1960, is offered as the supply-side counterpart to Keynes's demand-side theorizing. Michael Lawlor's contribution, "The Own-Rates Framework as an Interpretation of the *General Theory*: A Suggestion for Complicating the Keynesian Theory of Money," identifies Sraffa's (ill-tempered) review of Hayek's *Prices and Production* as the foundation underlying this new approach to monetary theory adopted by Keynes. As a duo, however,

Sraffa and Keynes give us an unlikely and ill-fitting rendition of supply and demand.

Post Keynesians typically—but not in the volume under review—suggest still more complications: a dual market structure consisting of both competitive and oligopolistic firms, mark-up pricing (practiced by the oligopolists) to finance new investment, and Marxian class conflict. The Davis volume avoids what would otherwise appear to be a hopeless grab bag of ideas by focusing on Keynes—his vision, philosophy, methods, analyses, and tactics. One of the formal comments (Allin Cottrell's) even includes a warning against perceiving Keynes as "a closet post Keynesian, harboring all kinds of heresies but suppressing them for the sake of perceived polemical advantage!" Another comment (Robert Prasch's) questions the idea that Sraffian supply fits well with Keynesian demand. Had Keynes thought it did fit well, why did he not say so? Why did he say, instead (in his often quoted letter to George Bernard Shaw), that "when my book has been duly assimilated and mixed with politics and feelings and passions, . . . the Ricardian foundations of Marxism will be knocked away"? Prasch is persuasive that what Keynes believed would be "knocked away," here, was Sraffa. If the grab-bag features of Post Keynesianism are left undiscussed while the relevance of Sraffa is in some doubt, then the term Post Keynesian fundamentalism seems appropriate. Further, the volume's editor, if not all the contributors, may not be so tightly bound to the "Post," in which case we would be back to the uninterpreted utopian Keynes.

It is one thing to proclaim that Keynes was a Keynesian, (again) as Rothbard so often did; it is quite another to treat Keynes's vision as a relevant or fruitful reflection of economic reality. But *The State of Interpretation of Keynes* will strike the reader as something of a stocktaking; the papers constitute background reports that form the basis for updating the Post Keynesians' research agenda. As explained in the editor's introduction, Keynes's ideas deserve—and now may get—a fresh hearing. The particular occasion for this stocktaking together with the particular focus of several of the papers is both curious and revealing.

There are two circumstances that have combined to put the original Keynes back in the limelight. First, there is the crumbling of bastardized Keynesianism with its graphical apparatus and algebraic expression of government-spending multipliers and tax multipliers and all that. Neoclassical modes

of thought have long restricted the thinking of mainstream economists and have made Keynesian economics look very unKeynesian. Recent trends, according to Davis, have been in the direction of flouting the strictures imposed by formal Neoclassicism and exploring a number of issues, including those of power and entrepreneurship. Methodological permissiveness may allow economists to look beyond the formalized income-expenditure relationships and get a fresh view of the *General Theory*. Second, Keynes's ideas seem to Davis to have a certain relevance in Keynes's time and in ours—a relevance that may have been lacking during most of the post World War II period. The decades-long capitalist-communist stalemate separated two periods characterized by political pluralism, relative disorder, and internationally based uncertainties. So the time is right, once again, to focus on the expectations that govern the economic process in the face of uncertainty and to think about the institutional arrangements most conducive to a healthy economy.

Davis finds similarities in the 1930s and the 1990s in terms of global political turbulence. He fails, however, to give due weight to the key difference between these two periods. In the 1930s the world was moving rapidly in the direction of centralization; in the 1990s it is undergoing substantial decentralization. Ironically, the perceived similarities of circumstances then and now cause Davis and several other contributors to this volume to rethink the meaning of Keynes's call for "a somewhat comprehensive socialization of investment."[4] A healthier reading of world history might have caused these scholars to rethink the meaning of Ludwig von Mises's claim of the "impossibility of economic calculation under socialism."[5] In fact, the very concepts that Davis hopes to see back in play, such as the concepts of power and entrepreneurship, help to bolster Mises's case for decentralized decision making.

As with almost every other aspect of Keynes's writing, the phrase "socialization of investment" is in for some interpreting. What did Keynes have in mind? While no one believes that he was thinking of outright state ownership of the means of production, other possible meanings involve further questions that neither Keynes nor his followers have adequately addressed. It is clear in his discussion following the call for socialized investment that Keynes is concerned with the "volume" and not the "direction" of employment. Keynes argues as if the government—or rather, "forces outside the classical scheme of

thought"[6]—could control the volume without affecting any other aspect of the market economy. What sort of powers would government have to wield to be able to exert such a force? And how would the quality of entrepreneurial decisions be affected if entrepreneurs had to anticipate the use—and possible misuse—of such powers? There are no answers to these questions that put socialization in a favorable light. The simple fact is that the conceptually distinct aspects of "volume" and "direction" as applied to employment or output are governed by a single set of market forces. Joan Robinson, who recognized the actual unity of these market forces but favored a more wholesale form of socialization, chided Keynes for even wanting to control volume without controlling direction. Direction, in her view, needed some controlling, too.[7]

In an alternative interpretation, one discussed in Hans Jensen's contribution, "forces outside the classical scheme" are not exerted by the state *per se* but rather by semi-public bodies. Keynes seemed to have envisioned large, privately owned firms with public-spirited managers. Readers of Keynes or of the Davis volume can only wonder what kind of power the state needs in order to maintain a public-spiritedness among these managers—and, again, what this kind of power might do to the entrepreneurial spirit among them and others. A discussion by Robert Dimand offers still another interpretation of the socialization of investment. Several years before the *General Theory*, Keynes had proposed a National Investment Board that would give the government some control over the volume of investment. An NIB, though, sounds suspiciously like a peacetime version of the United States' War Industries Board of the World War I era. Rothbard is noted for identifying the WIB as an important precursor of the subsequent New Deal policies that came to be closely identified with so-called bastardized Keynesianism.[8]

The Post Keynesians seem to be seriously concerned about what, exactly, Keynes may have had in mind. Many of the contributors, and especially Davis himself in his discussion of "Keynes's Philosophical Thinking," employ a what-did-he-know-and-when-did-he-know-it strategy in their attempts to sort things out. Davis also warns against a careless mixing of Keynes's philosophy and economics: Ideas are not easily transplanted whole across decades and disciplines. The alternative that none of the contributors considered is the simplest one—though not the most satisfying for those who consider Keynes the

fountainhead of economic wisdom: Keynes himself did not know what he meant. Keynes did not know what the appropriate supply-side counterpart to his theory was. He did not think through the implications—or recognize the virtual impossibility—of a zero rate of interest. He did not know how, exactly, a comprehensive socialization of investment could be implemented. Neither, we might add, did the more radical socialists have any clear ideas on the particulars of the economic mechanisms in a socialist state. These and similar answers to many other questions seem to be the most plausible basis for understanding the *General Theory*.

The viability of Keynesian economics, bastardized or otherwise, may be as hotly contested now as it was in Keynes's own time. And the Post Keynesian interpreters, with or without the hyphen, may never discover just what, exactly, Keynes meant. But as interpretations continue to proliferate, this collection of papers provides its readers a close encounter with the original Keynes. The experience may cause them to doubt whether Keynesianism in any of its guises can provide a healthy understanding of economic reality or a suitable guide to prescribing policy or proposing reform.

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[1] Paul Davidson defines the unhyphenated Post Keynesians very broadly and then identifies a classically oriented subset, to which he awards the hyphen. Further, he prefers to call Post-Keynesians Neo-Keynesians, a label I have used for the Keynesian component of the Keynesian-Neoclassical Synthesis found in modern textbooks. See Davidson, "Post Keynesian Economics: Solving the Crisis in Economic Theory" in Daniel Bell and Irving Kristol, eds., *The Crisis in Economic Theory* (New York: Basic Books, 1981), pp. 151–73.

[2] "That Keynes was a Keynesian—of the much derided Keynesian system provided by Hicks, Hansen, Samuelson, and Modigliani—is the only explanation that makes any sense of Keynesian economics." Murray N. Rothbard, "Keynes, the Man" in Mark Skousen, ed., *Dissent on Keynes: A Critical Appraisal of Keynesian Economics* (New York: Praeger Publishers, 1992), p. 196.

[3] Quoted phrases are from John Maynard Keynes, *The General Theory of Employment, Interest, and Money* (London: Macmillan, 1936), p. 376–78. For assessments of the utopian Keynes, see Joseph T. Salerno, "The Development of Keynes's Economics: From Marshall to Millennialism," *Review of Austrian Economics* 6, no. 1, (1992): 3–64, and Roger W. Garrison, "Keynesian Splenetics: From Social Philosophy to Macroeconomics," *Critical Review* 6, no. 4 (1993): 471–92.

[4] Keynes, *General Theory*, p. 378.

[5] Ludwig von Mises, *Human Action: A Treatise on Economics*, 3rd rev. ed. (Chicago: Henry Regnery Company, 1966), p. 698.

[6] Keynes, *General Theory*, p. 378.

[7] Joan Robinson, "What Has Become of the Keynesian Revolution?" in Milo Keynes, ed., *Essays on John Maynard Keynes* (Cambridge: Cambridge University Press, 1975), pp. 123–31.

[8] Murray N. Rothbard, "War Collectivism of World War I," in Ronald Radosh and Murray N. Rothbard, eds., *A New History of Leviathan: Essays on the Rise of the American Corporate State* (New York: E. P. Dutton, 1972), pp. 66–110.

Intimidation by Rhetoric

Murray N. Rothbard*

Knowledge and Persuasion in Economics
Donald N. McCloskey
Cambridge: Cambridge University Press, 1994

Professor Donald McCloskey of the University of Iowa in recent years has spectacularly "reinvented" his career. At first, he built a solid reputation as a journeyman economic historian. Later, he cleverly used that base to make a histrionic Great Leap Skyward, to become one of economics' best known gadflies, critics, and methodologists. In particular, McCloskey has invented a new methodology called "Rhetoric," an import from literary theory. In his latest book (p. xv), his third on rhetoric and economics, he "sets economics beside philosophy," turning his attention to philosophy, and attempting to refute his myriad of critics within the economics profession.

"Rhetoric" is kissin' cousin to the short-lived "hermeneutics" movement in economics, and indeed he helped contribute to that movement.[1] Like his friends the hermeneuticians, McCloskey insists that economics must be an eternal and perpetually "open" "conversation." Like the hermeneuticians, he is a nihilist and a village relativist. The difference is that McCloskey is far shrewder than they. In two ways: first, because he has a lock on the term "rhetoric," and can ring the changes on that word; and second, because he is far more elusive and evasive, far more the "artful dodger," than his stodgy and plodding hermeneutical comrades.

Rhetoric, McCloskey tells us, is the art of persuasion, and McCloskey has certainly learned the dark side of this art. The first phase of his rhetorical game was to trumpet himself as a great writer, ridiculing various established economists for terrible, jargon-filled writing. Here, McCloskey was shooting fish in a barrel; most economists have horrendous writing styles, *and they know it*. Hence, McCloskey was hitting mainstream economists where they were most vulnerable. As a result, McCloskey was able to establish himself in the minds of the profession as a great stylist and writer. Using rhetoric as

intimidation, he was able to bully the rest of the profession into handing him, without real evidence or analysis, this crucial accolade.

In actual fact, McCloskey is not even a good, much less a great, writer. His new book, for example, is an inchoate mishmash of assertion, gossip, anecdote, phony Socratic dialogue, off-hand attack, and unsupported rumor. Gossip, of course, is easier, and certainly more fun, to read than theoretical argument, and McCloskey has now established himself as the Cindy Adams of the economics profession, methodological branch. Indeed, it is curious that a distinguished university press should lend its imprint to this farrago, presumably because they too were intimidated by McCloskey's self-promotion as a great stylist. Actually, two truly fine writers are both *bêtes noires* of McCloskey: Stigler and Schumpeter. Both were all that McCloskey is not: lucid, penetrating, and gifted with a graceful style and witty turn of phrase. But presumably, they were too old-fashioned and "linear" for our rhetorician.

Having once established himself as a great writer, McCloskey now could wield a powerful if implicit club over his critics. For it turns out, monotonously and one after the other, that none of McCloskey's critics understands him. Every one of them is mired in his preconceptions, in some cases his mind "hard wired" to reject the McCloskeyan light. Either they don't understand philosophy, or they understand philosophy all too well. If they are neoclassicals or various brands of positivists, they are blind to McCloskeyan insights. If they think that "rhetoric" or "metaphor" is unscientific, then don't they know that all science is "metaphor" anyway, that presumably there is no difference between the law of gravitation and one of McCloskey's gossipy pronouncements.

But McCloskey is nothing if not an evasive and slippery brokenfield runner, always presenting a moving target. To those neoclassical economists who attack him as a nihilist and an enemy, he protests that, no no, he too is down deep a neoclassical, except a neoclassical on a higher and more sensible methodological level. To the leftists and institutionalists who embrace McCloskey for the same reason, he protests similarly that while *his* critiques of mainstream economics seem to be the same as theirs, he is really a mainstreamer. One by one, none of his critics get it; everyone is blind, confused, out of it.

Ordinarily, if we find a writer, in whatever discipline, whom no one seems to understand, the onus will quickly begin to fall

upon the writer himself: maybe no one understands him because he is incoherent, self-contradictory, in short, incomprehensible. But McCloskey had already cunningly precluded that reaction by entrenching himself as a uniquely great writer, so that the fault must always lie with his critics.

Throughout all of McCloskey's razzle-dazzle, however, he really only has one arrow in his rhetorical bow. To McCloskey, the good is to be "open," the bad to be "closed," a viewpoint that he embraces as *Sprachethik*, a typical McCloskey ploy—making a term more portentous by putting it into a foreign language. And sure enough, at bottom McCloskey has only one rebuttal to his host of critics; *they*, without exception, are "closed," whereas *he*, of course and by definition, is "open." Q.E.D. And it is not very long into his discourse that we come to realize what, for McCloskey, is the practical definition of these two words: someone is "open" if they agree with him, "closed" to the extent that they disagree.

In short, in addition to being its Cindy Adams, Donald McCloskey is even more the Humpty-Dumpty of the economics profession. "When I use a word," said this distinguished rhetorician who unfortunately had the satirical bent that the *serioso* McCloskey totally lacks, "it means just what I choose it to mean—neither more nor less." To which the egg-shaped one significantly added: "The question is which is it to be master—that's all." Unfortunately, McCloskey has gotten away with his rhetoric of mastery far too often.

If we come down from the lofty heights of methodology, how accurate is McCloskey as an observer or historian of modern economic thought and opinion? Let us consider two examples. One is his treatment of the allegedly "closed Austrianism" of myself and of *The Review of Austrian Economics* [*RAE*]. In this case we find the rhetorician as purveyor of unsubstantiated rumor: "The *Review* is known in Austrian circles as carefully excluding all but Rothbard's views" (McCloskey, *Knowledge and Persuasion*, p. 314). How does he establish this statement? McCloskey's one piece of "evidence" is that Hans-Hermann Hoppe, reviewer of McCloskey's *The Rhetoric of Economics* in the *RAE*, and not coincidentally one of its most effective critics, "is an academic colleague of Rothbard's," that is, at the University of Nevada, Las Vegas. Now, surely, McCloskey is familiar enough with academic life not to be employing this statement as anything but rhetorical deceit. Surely, he must know that to be in the same economics department as someone else does not

imply agreement. Indeed, of the dozen and a half members of the UNLV economics department, Hoppe and I are the only ones whom any reasonable person would dub as an "Austrian" in any sense, whether "open" or "closed." McCloskey's only other argument is characteristic: the weasel phrase "known in Austrian circles." McCloskey, as a supposed scholar and historian, might have checked the record of the *RAE* before treating gossip as fact. If he had done so, he would have found that the *RAE* has included articles by such distinguished economists as Leland Yeager, Richard Timberlake, Lowell Gallaway, Richard Vedder, Charles W. Baird, Robert Higgs, Israel M. Kirzner, Bruce Caldwell, W.H. Hutt, and Gordon Tullock, not one of whom could be called, by even the most fevered imagination, a "closed Austrian" à la the dread Rothbard: "careful exclusion"?

The second example of his accuracy is the embarrassingly ignorant and self-contradictory way in which McCloskey treats the great Joseph Schumpeter. First, he claims Schumpeter as a paradigmatic neoclassical upholder of the Whig Theory of the history of economic thought, that is, a believer that any dominant economic thought is superior to that at any earlier period of time, since the history of thought consists in testing one's theories, improving one's logic, and marching step-by-step, over time, into the light of more and more complete truth.

There is indeed a grain of truth in pinning this label on Schumpeter (he certainly believed in the progress of economic thought, and he revered Walras, the founder of the neoclassical paradigm, as "the greatest economist of all time"), but to dub him a Whig historian can only be called a grotesque caricature. Later in the book (p. 146), McCloskey mentions Schumpeter's famous attack on "the Ricardian Vice," without realizing that one of the basic themes of Schumpeter's famed *History of Economic Analysis* was a bitter and sustained attack upon Smith and Ricardo, their scuttling of the Scholastic and Continental tradition of scarcity-and-utility analysis of value, and their consequent shunting of economics onto a path ("classical economics") from which it took economics a century to recover (in the form of Walras and the other "marginalists"). Whatever it is, a belief in a century-long and profound worsening of dominant economics can scarcely be called a "Whig theory"![2]

Trying to squeeze Schumpeter into the positivist Stigler-Blaug mould, McCloskey then gets the "Ricardian Vice" all wrong, claiming that for Schumpeter, this vice is "applying blackboard propositions, untested, to the world" (McCloskey,

Knowledge and Persuasion, p. 146). McCloskey cites page 473 of Schumpeter's volume, but if we turn to that page we find a completely different account (as how could we *not* from a fervent adherent of Walras's surely "untested" set of general equilibrium equations). For Schumpeter's criticism is not at all that Ricardo's theory was not empirically tested. Schumpeter denounces Ricardo, because, unlike his Continental predecessors and indeed unlike Walras to come, he was in no sense concerned with a "comprehensive vision of the universal interdependence of all the elements of the economic system." Instead, Ricardo

> cut that general system to pieces, bundled up as large parts of it as possible, and put them in cold storage—so that as many things as possible should be frozen and "given." He then piled one simplifying assumption upon another until, having really settled everything by these assumptions, he was left with only a few aggregative variables between which, given these assumptions, he set up simple one-way relations so that, in the end, the desired results emerged almost as tautologies. For example, a famous Ricardian theory is that profits "depend upon" the price of wheat. And under his implicit assumptions . . . this is not only true, but undeniably, even trivially so. Profits could not possibly depend upon anything else, since everything else is "given," that is, frozen . . . The habit of applying results of this character to the solution of practical problems we shall call the Ricardian Vice.[3]

In the past two decades, the collapse of arrogant positivism in the philosophy profession, and the severe decline of the allied Keynesian-Walrasian neoclassical paradigm in economics, has led to a veritable "crisis situation" in all areas of economic theory, in particular among the methodologists who are concerned about the philosophical and methodological groundwork of economics. This crisis situation has been a healthy one, for it has mainly dislodged the previously ruling and false paradigms, and allowed room for the jostling of many new doctrines, competing for attention and dominance. But the flip side of this salubrious situation is that standards in general are lowered, and a lot of nonsense and absurdity gets to pass as sober and profound contributions to the discipline. Donald McCloskey and his

inchoate and ill-informed “rhetoric” is an outstanding example. It is precisely in exciting times of methodological crisis that we need to have our built-in claptrap-detectors honed and sharpened. To the extent that they are, McCloskey’s work will receive the clear-eyed treatment it so richly deserves.

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[1] Donald N. McCloskey, “Storytelling in Economics,” in Don C. Lavoie, *Economics and Hermeneutics* (London and New York: Routledge & Kegan Paul, 1990), pp. 61–75. For a critique of hermeneutics, see David Gordon, *Hermeneutics vs. Austrian Economics* (Auburn, Ala.: Ludwig von Mises Institute, 1986); Murray N. Rothbard, “The Hermeneutical Invasion of Philosophy and Economics,” *Review of Austrian Economics* 3 (1989): 45–59; and Hans-Hermann Hoppe, “In Defense of Extreme Rationalism: Thoughts on Donald McCloskey’s *The Rhetoric of Economics*,” *Review of Austrian Economics* 3 (1989): 179–214.

[2] Indeed, Schumpeter’s *History of Economic Analysis* (New York: New York University Press, 1954) was notable in its pioneering resurrection of Scholastic economics from its long misrepresentation and neglect at the hands of the dominant British and American tradition—scarcely the work of a Whig historian!

[3] Ibid., pp. 472–73.

Economic Thought Before Adam Smith (vol. I) and *Classical Economics* (vol. II) Murray N. Rothbard Aldershot, England and Brookfield, Vt.: Edward Elgar, 1995

On first seeing Murray Rothbard's two volumes, I regretted having agreed to review them, for they cover the history of thought only up to about 1870, when, in my view, economics begins to get really interesting. Actually reading them changed my mind. Rothbard—not just the libertarian guru but the joyful and indefatigable scholar—makes the thinkers even of reputedly dreary epochs come alive.

As he says, his history "is much longer than most since it insists on bringing in all the 'lesser' figures and their interactions as well as emphasizing the importance of their religious and social philosophies as well as their narrower strictly 'economic' views" (I, p. xiii). Lao Tzu (around sixth century B.C.), leader of "the world's first libertarians," receives respectful attention (I, pp. 23–26). So do the pre-Socratics, Xenophon, and, with much qualification, Aristotle, whereas Plato is classified as a "rightwing collectivist" (I, chap. 1). Even Amos Kendall gets credit for his subjective value theory and "the first expression of the law of diminishing marginal utility" in his Kentucky newspaper in 1820 (II, pp. 130–32). Rothbard regrets that Ricardo and his epigones did not read and understand Kendall's rejection of any objective standard of value.

Appropriately in volumes subtitled *An Austrian Perspective on the History of Economic Thought*, Rothbard grades earlier economists high or low according to how they anticipated subjectivist and marginalist achievements or obstructed intellectual progress. He writes smoothly and, especially in his appraisals, with touches of humor.

His appraisals extend to earlier historians of thought. S. Leon Levy's biography of Nassau Senior is "chatty and uncomprehending" (II, p. 485). Samuel Hollander's "massive and bizarre project to transform all the classical economists into perfect little propounders of neoclassical, general equilibrium doctrine" suffered a "devastating and most welcome demolition" at the hands of T. W. Hutchison (II, p. 492).

Mostly, of course, Rothbard appraises the economists

themselves. He lambastes David Ricardo's "abysmal writing, in style and organization" and goes on to quote Alexander Gray's similar judgment. "For all too many people," however, "obscurity and bad writing equal profundity." Obscurity has charms both for the great man and for the adepts who cluster around him (II, p. 103). With evident relish Rothbard quotes H. L. Mencken at length on the flatulent banalities of Thorstein Veblen's prose (II, p. 153).

Bishop Berkeley wrote *The Querist*, containing his major pronouncements on economic questions, "solely as a series of 900 loaded questions, by which [he] hoped to influence public opinion through sheer rhetoric without having to engage in reasoning" (I, pp. 331–32). "On his farm [J. C. L. Simonde de Sismondi] fought against overproduction in his own dotty way: making sure that production would be as low as possible by choosing the feeblest workers for employment on his farm, and deliberately having his house repaired by an incompetent worker" (II, p. 34).

"[Jeremy] Bentham functioned as the Great Man, scribbling chaotically on endless and prolix manuscripts elaborating on his projected reforms and law codes. . . . The affluent Bentham lived in a capacious house surrounded by flunkies and disciples, who copied revision after revision of his illegible prose to get ready for eventual publication. He conversed with his disciples in the same made-up jargon with which he peppered his writings" (II, p. 49). "[I]n 1804, Jeremy Bentham lost interest in economics, a fact for which we must be forever grateful. It is only unfortunate that this waning of zeal had not occurred a half-decade before" (II, p. 55). (Rothbard reinforces my own impression of Bentham as an unattractive person, illustrated by his obsession with his Panopticon project. I doubt, though, that Bentham's personality should automatically discredit all philosophical doctrines linked, however loosely, with his name.)

As for John Stuart Mill, "It is difficult to think of anyone in the history of thought who has been more egregiously and systematically overestimated" (II, p. 491). Despite Gertrude Himmelfarb's notion of two Mills, the (good) conservative moralist and the (bad) libertarian, Rothbard sees "only one Mill —multi-faceted, self-contradictory, kaleidic, devious, muddled and filiopietistic" (II, p. 493). "It is impossible to estimate how much of John Stuart Mill's inveterate and eternal contradictions, qualifications and alterations were due to honest muddle-headedness and how much to devious and evasive intellectual

broken-field running" (II, p. 279). (While not challenging Rothbard's judgments on specific points, I'll confess to liking much in Mill's work, particularly parts of *Utilitarianism*, *On Liberty*, and *Considerations on Representative Government*. Mill was not as pervasively wrong or evil as, say, Karl Marx. A reader may as well get what he can from a serious writer. When one is trying to think one's own way through some topic by pulling together one's own and other people's ideas, the question of *overall* assessment of those people, however unfavorable, need not intrude.)

Rothbard crisply summarizes his judgments on a couple of Marxian concepts. "'Alienation', to Marx, bears no relation to the fashionable prattle of late twentieth century Marxoid intellectuals" (II, p. 349). Regarding the material dialectic, "It is difficult to state this position without rejecting it immediately as drivel" (II, p. 377).

As I have already suggested, Rothbard breaks away from the second-handism and parroting that characterizes much history of thought. He doubts the sainthood of Adam Smith (esp. I, chaps. 16 and 17). Smith slipped backward from David Hume's insights into monetary theory and balance-of-payments analysis. He dropped earlier contributions about subjective value, entrepreneurship, and emphasis on real-world markets and pricing and replaced it all "with a labor theory of value and a dominant focus on the unchanging long-run 'natural price' equilibrium, a world where entrepreneurship was assumed out of existence" (I, p. xi; cf. summary judgment at I, p. 501). He mixed up Calvinism with economics, as in supporting usury prohibition and distinguishing between productive and unproductive occupations. He lapsed from the laissez faire of several eighteenth-century French and Italian economists, introducing many waffles and qualifications. His work was unsystematic and plagued by contradictions. He came close to plagiarism while accusing others of it. Rothbard credits Paul Douglas for a relatively clear-eyed assessment at a University of Chicago commemoration of the 150th anniversary of *The Wealth of Nations*. He also cites Joseph Schumpeter's dissent from the conventional admiration of Smith.

David Ricardo also fares badly at Rothbard's (and Schumpeter's) hands (II, chaps. 3 and 4). Ricardo dealt more in aggregates and in supposed long-run equilibria and other abstractions than in realities; he did not fully understand the principle of comparative advantage, which was less his own idea,

anyway, than James Mill's; he was less interested in what fosters and what impedes the creation of wealth than in its distribution among broad social classes; he clung to a cost theory and indeed mostly a labor theory of value; he gave ammunition to Marx.

Reading Rothbard makes me more willing than before to confess my own judgments (derived from reading *The Wealth of Nations* and *The Principles of Economics and Taxation* longer ago than I care to admit) that Smith and Ricardo are downright tedious, especially taken in large doses.

Rothbard's adverse assessments are perhaps more fun to read and quote than the reverse, but I must not leave the impression that he gives out little praise. His heroes include several of the scholastics who flourished from the thirteenth century into the seventeenth century, including members of the Spanish School of Salamanca. They had insights into subjective-value theory and understood the "just price" as the competitive market price rather than as a theological concept. Richard Cantillon was "the founding father of modern economics," writing the first systematic treatise. A. R. J. Turgot made brilliant contributions in several areas, even though his writings on economics add up to fewer than 200 pages. J. B. Say had sound insights into value theory, macroeconomics, the role of the entrepreneur, the rationale of *laissez faire*, and methodology. Nineteenth-century debates on money and banking were instructive.

Anyone writing history, including intellectual history, must focus attention selectively. Rothbard's own preferences come across, but without unpleasant obtrusiveness. While not trumpeting it, he exudes an evident sympathy for workers, peasants, and the poor; he is no apologist for the rich and powerful. Repeatedly if briefly he shows sympathy with doctrines of natural law and natural rights and, more broadly (and regrettably, in my own view), with some sort of anti-utilitarian ethics. He takes a Lockean position on the origins of legitimate property rights, correctly noting that a labor theory of property is not at all the same as a labor theory of value (I, pp. 56–58). Rather to my surprise, he manages to find several predecessors for his own advocacy of 100-percent-reserve money (II, 210–16, chap. 14, and *passim*).

On a few points, Rothbard seems to have changed his mind, or his rhetoric. He does not insist as emphatically as before on a purely subjective theory of value and a pure-time-preference theory of interest. He explains that degrees of scarcity interact

with subjective appraisals to determine marginal valuations and that objective factors help determine degrees of scarcity. In interest theory he illuminates the interaction of subjective time preference with the greater productivity of well-chosen roundabout methods of production (II, pp. 22–24, 139, 141); and he has words of praise for Böhm-Bawerk, who recognized this interaction of subjective and productivity factors.

In contrast with his own *America's Great Depression* (esp. chap. 4), where he used an imaginatively broadened definition of the money supply to discuss monetary inflation in the 1920s, Rothbard now reverts to the narrow medium-of-exchange definition (II, pp. 164, 183, 251). In scattered remarks on business-cycle theory, he retains a monetary interpretation without always insisting on the specific "Austrian" scenario of Mises and the early Hayek.

Rothbard no longer endorses Hans-Hermann Hoppe's claim to derive libertarian policy positions purely from the circumstances of discussion itself, without any appeal to value judgments (cf. *Liberty*, September and November 1988). On the contrary, and as he had done earlier, Rothbard now correctly observes that policy recommendations and decisions presuppose value judgments as well as positive analysis (II, p. 119 and *passim*).

In welcome contrast with familiar Austrian maundering about methodology, Rothbard makes sensible remarks, smoothly working them into his appraisals of earlier writers. Nassau Senior gets good marks. Bad ones go to Sir William Petty, the supposed father of econometrics, and to David Ricardo and John Stuart Mill. Readers should not be misled by Ludwig von Mises's unusual use of the words *a priori* in characterizing economic theory. Economics deduces its theorems from axioms, axioms of such pervasive validity and crushing obviousness that we can scarcely imagine persons, societies, and worlds of which they were not true. (For example, resources are scarce relative to almost unlimited wants; choices must be made; and people act purposefully, taking account of the expected consequences of alternative courses of action. Besides scattered passages in these two volumes, see Rothbard's article in the *Southern Economic Journal*, January 1957).

If I had an opportunity to do so—which, sadly, none of us ever will—I would quibble with Rothbard on several points. He describes the function of the landlord as that of deciding or administering the allocation of pieces of land among rival uses

(II, p. 91). This view seems too narrow to explain the huge rents that some landlords collect; it requires integration with capital and interest theory. As a capitalist, the landlord collects something closely akin to interest for waiting, meaning the tying up over time of wealth that might otherwise have been used to bid resources into serving his consumption or other near-term purposes. At least potentially, furthermore, the landlord organizes the provision of spatially confined civic goods, often called public goods (Fred Foldvary, *Public Goods and Private Communities* [Aldershot, England and Brookfield, Vt.: Edward Elgar, 1994]). I'd like to discuss Rothbard's evident complacency about monetary deflation (e.g., II, p. 174) and his attacks on utilitarianism (esp. II, chap. 2).

I am approaching a conclusion. Rothbard's riding his hobbies contributes to the charm of his work. Although not evidently religious himself, he took interest in religion as a social phenomenon and as an influence on thinking about secular matters. He may occasionally have been carried away, as in devoting a dozen or so pages to the Anabaptists of the sixteenth century. Yet even this digression is not entirely irrelevant to the emergence of economic ideas—the Anabaptists were early communists—and it and similar digressions do help make his history eminently readable.

No one surveying so many thinkers in such detail as Rothbard does could have read every word of their every major work. Reliance on secondary sources was inevitable. Rothbard is frank and generous in recognizing the scholarship of their authors, including ones who did not share his political views. He often cites Joseph Schumpeter, Emil Kauder, Alexander Gray, Marjorie Grice-Hutchinson, John T. Noonan, and F. A. Hayek (whom he treats respectfully, although not without plausible criticism on specific points, as at I, p. 527). I was delighted to see recognition given to his and my Columbia professor Joseph Dorfman and to my Oberlin professor Raymond de Roover. In using secondary sources, Rothbard does not merely pluck from them; he assesses them, as is important for identifying understandings and misunderstandings about the history of the discipline.

The degree of documentation given for specific statements varies among sections of the two volumes. Even an occasional direct quotation goes without citation. Trivial lapses like these, coupled with my own merely amateur knowledge of Rothbard's subject matter, keep me from authoritatively vouching for the

accuracy of his every statement.

Rothbard's work helps underline why economists should study the history of thought. The Whig theory of history as applied to science is wrong—the standard "complacent and infuriating Panglossian optimism" that forgets the real possibility of deterioration. Rothbard shares Thomas Kuhn's "less than starry-eyed view of science," yet without adopting Kuhn's "nihilistic philosophic outlook." Especially in economics, "[t]here can . . . be no presumption whatever . . . that later thought is better than earlier" (I, Introduction).

Although not using the term "frontiersmanship," Rothbard is aware of the phenomenon—the self-congratulatory attitude of workers on the supposed frontiers of economic science who scorn attention to work of earlier generations as mere anti-quarianism on the ground that anything worth knowing is already incorporated into their discipline's current wisdom. Unlike the frontiersmen, Rothbard knows that earlier progress can get forgotten. So can earlier fallacies, which keep getting independently rediscovered and commanding attention. Examples are versions of the real-bills doctrine blaming balance-of-payments deficits for the depreciation on the foreign-exchange market of currencies undergoing inflation.

Less so in economics than in the natural sciences do valid discoveries get embodied not only into pure knowledge but also into technology, many of whose users have a profit-and-loss incentive to get things straight. That incentive is notoriously perverted or weak for politicians and special-interest lobbyists. In economics, therefore, we need scholars who specialize in keeping us alert to old contributions—and old fallacies—masquerading as new truths. Specialists in economic thought should also be alert to the danger of an approach that stresses the work of a few great men and strives mightily to interpret their writings as justifying admiration traditionally accorded them. The resulting intellectual atmosphere may well contribute to robbing Rothbard's lesser figures (like Kendall of Kentucky) of the attention that their not-yet-fashionable ideas merited.

Rothbard occasionally (e.g., II, p. 456) mentions economists to be covered or points to be developed in a "later volume" of his mammoth project. These promises have now become poignant. Anyway, Rothbard's work will suggest research topics and provide inspiration for rising generations of Austrian economists.

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Socialism: A Property or Knowledge Problem?

Hans-Hermann Hoppe

In a series of recent articles in *The Review of Austrian Economics*, Joseph Salerno began to de-homogenize the often conflated economic and social theories of Ludwig von Mises and Friedrich A. Hayek. In particular, he has shown that their views on socialism are distinctly different, and he has argued in effect that Mises's original argument in the so-called socialist calculation debate was correct all along and was also the final word, whereas Hayek's distinct contribution to the debate was fallacious from the outset, and merely added confusion. The following note will provide additional support to Salerno's thesis.

Mises's well-known calculation argument states this: If there is no private property in land and other production factors, then there can also be no market prices for them. Hence, economic calculation, i.e., the comparison, in light of current prices, of anticipated revenue, and expected cost expressed in terms of a common medium of exchange—money—(thus permitting *cardinal* accounting operations), is literally impossible. Therefore, socialism's fatal error is the absence of private property in land and production factors, and, by implication, the absence of economic calculation.

For Hayek, socialism's problem is not a lack of property but a lack of knowledge. His distinctly own thesis is altogether different from Mises's.[1] For Hayek, the ultimate flaw of socialism is the fact that knowledge, in particular "the knowledge of the particular circumstances of time and place," exists only in a widely dispersed form as the personal possession of various individuals; hence, it is *practically* impossible to assemble and process all the actually existing knowledge within the mind of a single socialist central planner. Hayek's solution is not private property, but the decentralization of the use of knowledge.

Yet this is surely an absurd thesis. First, if the centralized use of knowledge is the problem, then it is difficult to explain why there are families, clubs, and firms, or why they do not face the very same problems as socialism. Families and firms also

involve central planning. The family head and the owner of the firm also make plans which bind the use other people can make of their private knowledge, yet families and firms are not known to share the problems of socialism. For Mises, this observation poses no difficulty: under socialism private property is *absent*, whereas individual families and private firms are *based* on the very *institution* of private property. But for Hayek the smooth operation of families and firms is puzzling, because his idea of a fully decentralized society is one in which each person makes his own decisions based on his own unique knowledge of the circumstances, unconstrained by any central plan or supraindividual (social) norm (such as the institution of private property).

Second, if the *desideratum* is merely the decentralized use of knowledge in society, then it is difficult to explain why the problems of socialism are fundamentally different from those encountered by any other form of social organization. *Every* human organization, composed as it is of distinct individuals, constantly and unavoidably makes use of decentralized knowledge. In socialism, decentralized knowledge is utilized no less than in private firms or households. As in a firm, a central plan exists under socialism; and within the constraints of this plan, the socialist workers and the firm's employees utilize their own decentralized knowledge of circumstances of time and place to implement and execute the plan. For Mises, all of this is completely beside the point. But within Hayek's analytical framework, no difference between socialism and a private corporation exists. Hence, there can also be no more wrong with the former than with the latter.

Clearly, Hayek's thesis regarding the central problem of socialism is nonsensical. What categorically distinguishes socialism from firms and families is *not* the existence of centralized knowledge or the lack of the use of decentralized knowledge, but rather the absence of private property, and hence, of prices. In fact, in occasional references to Mises and his original calculation argument, Hayek at times appears to realize this, too. But his attempt to integrate his very own thesis with Mises's and thereby provide a new and higher theoretical synthesis fails.

The Hayekian synthesis consists of the following propositional conjunction: "Fundamentally, in a system in which the knowledge of the relevant facts is dispersed among many people, prices can act to coordinate the separate actions of

different people" and "the price system" can serve as "a mechanism for communicating information."[2] While the second part of this proposition strikes one as vaguely Misesian, it is anything but clear how it is logically related to the first, except through Hayek's elusive association of "prices" with "information" and "knowledge." However, this association is more of a semantic trick than rigorous argumentation. On the one hand, it is harmless to speak of prices as conveying information. They inform about past exchange ratios. But it is a non-sequitur to conclude that socialism's central problem is a lack of *knowledge*. This would only follow if prices actually *were* information. However, this is not the case. Prices convey knowledge, but they *are* the exchange ratios of various goods, which result from the voluntary interactions of distinct individuals *based on the institution of private property*. Without the institution of private property, the information conveyed by prices simply does not exist. Private property is the necessary condition—*die Bedingung der Möglichkeit*—of the knowledge communicated through prices. But then it is correct only to conclude, as Mises does, that it is the absence of the institution of private property which constitutes socialism's problem. To claim that the problem is a lack of knowledge, as Hayek does, is to confuse cause and effect, or premise and consequence.

On the other hand, Hayek's identification of "prices" and "knowledge" involves a deceptive equivocation. Not only does Hayek fail to distinguish between what one might call institutional knowledge—information that requires for its existence an institution (such as the knowledge of prices requires private property)—and *raw* or *extra-institutional knowledge*—like this is an oak tree, I like peanuts, or birds can fly. Moreover, Hayek also fails to notice that the knowledge of prices is not at all the same sort of knowledge whose existence he believes to be responsible for the "practical impossibility" of socialism and central planning. What makes central planning impossible, according to Hayek, is the fact that part of human knowledge exists only as essentially *private* information:

> practically every individual has some advantage over all others because he possesses unique information of which beneficial use might be made, but of which use can be made only if the decisions depending on it are left to him or are made with his active cooperation.[3]

While it is certainly true that such knowledge exists, and while it is also true that uniquely private knowledge can of course never be centralized (without information losses), it is just as certainly *not* true that the knowledge of *prices* falls into this category of uniquely *private* information. To be sure, prices are "prices paid at specific times and places," but this does not make them private information in the Hayekian sense. To the contrary, the information conveyed by *prices* is *public* information, because prices—*qua* objective exchange ratios—are *real* events. It may be *difficult* to know all of the prices paid at a specified date and location, just as it may be difficult to know every person's physical location at any given time. Yet it is hardly *impossible* to know either one, and with current computer technology it is probably easy. In any case, while I may never know everything that you know, and *vice versa*, it is no more problematic to assume that both of us can simultaneously possess the same *price* information than that we can both simultaneously know the same baseball results. Hence, the knowledge conveyed by *prices* actually *can be centralized*. But if price information is public information and thus can be centralized, then, according to Hayek's thesis that socialism's problem stems from the inefficiency of trying to centralize genuinely uncentralizable private knowledge, it would follow that the absence of prices, and hence of private property, has *nothing to do* with the plight of socialism. Otherwise, if one insists with Mises that the absence of private property and prices *does* have something to do with the plight of socialism. Hayek's contribution to the socialism debate must be thrown out as false, confusing, and irrelevant.

Hayek's misconception of the nature of socialism is symptomatic of a fundamental flaw in his thinking, pervading not only his economics but in particular also his political philosophy: his ultra-subjectivism. Hayek, as noted and quoted *ad nauseam* by his numerous followers, was convinced that "it is probably no exaggeration to say that every important advance in economic theory during the last hundred years was a further step in the consistent application of subjectivism."[4] While this may well be true, it does not logically follow that every further advance toward subjectivism must also lead to an advance in economic theory. However, Hayek seems to have drawn this conclusion and has thus become a prime example illustrating its falsehood.

Mises, and in his steps even more clearly Murray N. Rothbard, conceives of economics as the science of human *action*.

Action has two inseparable aspects: a subjective aspect (action is rational, intelligible action) and an objective aspect (acting is always acting with real things and physical stuff). Accordingly, Mises's and Rothbard's economics and political philosophy is never anything but robust, and their categories and theories invariably possess real, operational meaning: private property, division of labor based on private property, production, direct and indirect exchange, and also compulsory interference with private property and production and exchange such as taxation, counterfeiting, legislation, and regulation.

In distinct contrast, Hayek—and misled by him to different degrees also Israel Kirzner and Ludwig Lachmann—views economics as some sort of science of human *knowledge*. Accordingly, Hayek's categories and theories refer to purely subjective phenomena and are invariably elusive or even illusory. He is not concerned about acting with things, but about knowledge and ignorance, the division, dispersion, and diffusion of knowledge, alertness, discovery, learning, and the coordination and divergence of plans and expectations. The external—physical—world and real—material—events have almost completely disappeared from his view. Hayek's categories refer to *mental* states of affairs and relationships, completely detached from and compatible with any real physical state of affairs and events.

Most notable and disturbing is the ultra-subjectivist turn in Hayek's political philosophy. According to a long-standing tradition of political philosophy shared by Mises and Rothbard, freedom is defined as the freedom to privately own—and control—real property, and coercion is the initiation of physical damage—harm—upon the private property of others. In distinct contrast, Hayek defines freedom as "a state in which each can use his own *knowledge* and for his own *purposes*,"[5] and coercion means "such control of the environment or circumstances of a person by another that, in order to avoid greater evil, he is forced to act not according to a coherent *plan* of his own but to serve the *ends* of another,"[6] or alternatively, "coercion occurs when one man's actions are made to serve another man's will, not for his own but for the other's *purpose*"[7] (all emphases are mine). Clearly, Hayek's definition contains nothing regarding scarce goods and real tangible property, and his provides no *physical* criterion or indicator whatsoever for the existence or non-existence of either state of affairs. Rather, coercion and freedom refer to specific configurations of subjective wills, plans,

thoughts, or expectations. As *mental* predicates, Hayek's definitions of freedom and coercion are compatible with every *real*, physical state of affairs. They possess no power to make any real distinctions.[8]

It is beyond the scope of this note to offer a detailed critique and refutation of Hayek's ultra-subjectivism. However, beside the fundamental question whether a science of knowledge as envisioned by Hayek is even possible, i.e., whether there can be any other science of knowledge apart from logic and epistemology on the one hand and the history of ideas on the other,[9] two conclusions are painfully clear. Even if Hayek's science of knowledge is possible, it appears at best irrelevant because it is praxeologically—operationally—meaningless. At worst it is intellectually pernicious in promoting relativism.

As for the real world of acting with physical property, of production and exchange, of money and markets, profits and losses, capital accumulation and bankruptcies, there can be no lasting doubt about the existence of *laws* and the ceaseless operation of a *tendency* toward general equilibrium—action-coordination. Likewise, there can be no doubt about the existence of laws and the constant operation of dis-equilibrating tendencies within the world of actual taxation, counterfeiting, legislation, and regulation. Indeed, it would be extremely costly —prohibitive—to not recognize such laws and tendencies and to adopt relativistic views. In contrast, in surreptitiously shifting attention from the tangible world of action and property to the ethereal world of knowledge, ideas, plans and expectations, relativistic views become attractive (and cheap). There are no apparent regularities and tendencies in Hayek's knowledge world. In fact, it is difficult to even imagine what "law" and "equilibrium" could possibly mean in the context of purely subjective phenomena. Instead there exists seemingly nothing but constant kaleidoscopic change.

It is hardly surprising, then, that Hayek and his followers could proclaim such relativistic slogans as that we cannot do anything to improve our condition except rely on spontaneous evolution, that our future is completely unknowable, or that we cannot but participate in an endless and open-ended stream of conversation. As far as the realm of purely subjective phenomena is concerned, and as addressed to a purely spiritual—disembodied—being, this may well be good advice. Actually possessing physical—bodily—existence, however, why would anyone even care to know it? As applied to the world of bodily

action and property, such advice is self-destructive nonsense.

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[1] See in particular the widely acclaimed 1945 article on "The Use of Knowledge in Society," reprinted in F. A. Hayek, *Individualism and Economic Order* (Chicago: University of Chicago Press, 1948).

[2] Ibid., pp. 85–86.

[3] Ibid., p. 80.

[4] *The Counterrevolution of Science* (New York: Free Press, 1955). p. 31.

[5] *Law, Legislation, and Liberty*, Vol. 1 (Chicago: University of Chicago Press, 1973), pp. 55–56.

[6] *Constitution of Liberty* (Chicago: University of Chicago Press, 1960), pp. 20–21.

[7] Ibid., p. 133.

[8] See also Hans-Hermann Hoppe, "Hayek on Government and Social Evolution," *Review of Austrian Economics* 7, no. 1 (1994): esp. 70f.

[9] For some serious doubts on this see Hans-Hermann Hoppe, *Kritik der kausalwissenschaftlichen Sozialforschung* (Opladen: Westdeutscher Verlag, 1983).

Economic Calculation and the Limits of Organization

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Economists have become increasingly frustrated with the textbook model of the firm. The "firm" of intermediate microeconomics is a production function, a mysterious "black box" whose insides are off-limits to respectable economic theory (relegated instead to the lesser disciplines of management, organization theory, industrial psychology, and the like). Though useful in certain contexts, the textbook model has proven unable to account for a variety of real-world business practices: vertical and lateral integration, geographic and product-line diversification, franchising, long-term commercial contracting, transfer pricing, research joint ventures, and many others. As an alternative to viewing the firm as a production function, economists are turning to a new body of literature that views the firm as an *organization*, itself worthy of economic analysis. This emerging literature is the best-developed part of what has come to be called the "new institutional economics."[1] The new perspective has deeply enhanced and enriched our understanding of firms and other organizations, such that we can no longer agree with Ronald Coase's 1988 statement that "[w]hy firms exist, what determines the number of firms, what determines what firms do . . . are not questions of interest to most economists" (Coase 1988a, p. 5). The new theory is not without its critics; Richard Nelson (1991), for example, objects that the new institutional economics tends to downplay discretionary differences among firms. Still, the new institutional economics—in particular, agency theory and transaction cost economics—has been the subject of increasing attention in industrial organization, corporate finance, strategic management, and business history.[2]

This paper highlights some distinctive Austrian contributions to the theory of the firm, contributions that have been largely neglected, both inside and outside the Austrian literature. In particular, I argue that Mises's concept of economic calculation—the means by which entrepreneurs adjust the structure of production to accord with consumer wants—belongs at the

forefront of Austrian research into the nature and design of organizations. There is a unique Austrian perspective on economic planning, a perspective developed over the course of the socialist calculation debate. As was recognized in the early Austrian reinterpretations of the calculation debate (Lavoie 1985, Kirzner 1988), Mises's conception of the problem faced by socialist planners is part and parcel of his understanding of how resources are allocated in a market system. Mises himself emphasized that planning is ubiquitous: "[E]very human action means planning. What those calling themselves planners advocate is not the substitution of planned action for letting things go. It is the substitution of the planner's own plan for the plans of his fellow men" (Mises 1947, p. 493). All organizations plan, and all organizations, public and private, perform economic calculation. In this sense, the calculation problem is much more general than has usually been realized.

With their unique perspective on markets and the difficulties of resource allocation under central planning, third-and fourth-generation Austrian economists have always implicitly understood the economics of organization. In this context, as Nicolai Juul Foss (1994, p. 32) notes in a recent issue of this *Review*, "it is something of a doctrinal puzzle that the Austrians have never formulated a theory of the firm." Foss points out that many elements of the modern theory of the firm—property rights, relationship-specific assets, asymmetric information, the principal-agent problem—appeared, at least in elementary form, in Austrian writings since the middle stages of the calculation debate. Indeed, Rothbard's treatment of firm size in *Man, Economy, and State* (1962) was among the first discussions to adopt explicitly the framework proposed by Ronald Coase in 1937, a framework that underlies most contemporary theorizing about the firm. Mises's discussion in *Human Action* (1949) of the role of financial markets foreshadows Henry Manne's seminal 1965 article on the market for corporate control along with the recent recognition of finance as an essential part of economics.

Besides anticipating parts of the modern literature, Mises and Rothbard also introduced significant innovations, though this has not yet been generally recognized. Their contributions, while not part of a fully articulated, explicit theory of the firm, deserve attention and development, especially by those working on such issues from within the Austrian School.[3] These contributions are Rothbard's application of the calculation problem to the limits of the firm, and Mises's discussion of how

the financial markets both limit managerial discretion and perform the ultimate resource allocation task in a market economy.

The Textbook Theory of the Firm

In neoclassical economic theory, the firm as such does not exist at all. The "firm" is a production function or production possibilities set, a means of transforming inputs into outputs. Given the available technology, a vector of input prices, and a demand schedule, the firm maximizes money profits subject to the constraint that its production plans must be technologically feasible. That is all there is to it. The firm is modeled as a single actor, facing a series of relatively uncomplicated decisions: what level of output to produce, how much of each factor to hire, and so on. These "decisions," of course, are not really decisions at all; they are trivial mathematical calculations, implicit in the underlying data. In the long run, the firm may also choose an optimal size and output mix, but even these are determined by the characteristics of the production function (economies of scale, scope, and sequence). In short: the firm is a set of cost curves, and the "theory of the firm" is a calculus problem.

To be sure, these models are not advertised as realistic descriptions of actual business firms; their use is purely instrumental. As David Kreps(1990, p. 233)—himself much less sanguine about the merits of the traditional model than most—puts it: if real-world firms do not maximize profits as the traditional theory holds, "that doesn't mean that profit maximization isn't a good positive model. Only the data can speak to that, and then only after we see the implications of profit maximization for observable behavior." However, even granting instrumentalism its somewhat dubious merits,[4] the production-function approach is unsatisfactory, because it isn't useful for understanding a variety of economic phenomena. The black-box model is really a theory about a *plant* or production process, not about a *firm*. A single firm can own and operate multiple production processes. Similarly, two or more firms can contract to operate jointly a single production process (as in a research joint venture). If we want to understand the scale and scope of the firm as a legal entity, then, we must look beyond the textbook model.

Coase and Transaction Costs

Ronald Coase, in his celebrated 1937 paper on "The Nature of the Firm," was the first to explain that the boundaries of the organization depend not only on the productive technology, but on the costs of transacting business. In the Coasian framework, as developed and expanded by Williamson (1975, 1985, 1996), Klein, Crawford, and Alchian (1978), and Grossman and Hart (1986), the decision to organize transactions within the firm as opposed to on the open market—the "make or buy decision"—depends on the relative costs of internal versus external exchange. The market mechanism entails certain costs: discovering the relevant prices, negotiating and enforcing contracts, and so on. Within the firm, the entrepreneur may be able to reduce these "transaction costs" by coordinating these activities himself. However, internal organization brings another kind of transaction cost, namely problems of information flows, incentives, monitoring, and performance evaluation. The boundary of the firm, then, is determined by the tradeoff, at the margin, between the relative transaction costs of external and internal exchange. In this sense, firm boundaries depend not only on technology, but on organizational considerations; that is, on the costs and benefits of contracting.

The relative costs of external and internal exchange depend on particular characteristics of transaction: the degree to which relationship-specific assets are involved, the amount of uncertainty about the future and about trading partners' actions, the complexity of the trading arrangement, and the frequency with which the transaction occurs. Each matters in determining the preferred institutional arrangement (that is, internal versus external production), although the first—"asset specificity"—is held to be particularly important.[5] Williamson (1985, p. 55) defines asset specificity as "durable investments that are undertaken in support of particular transactions, the opportunity cost of which investments are much lower in best alternative uses or by alternative users should the original transaction be prematurely terminated." This could describe a variety of relationship-specific investments, including both specialized physical and human capital, along with intangibles such as R&D and firm-specific knowledge or capabilities.

The recent transformation of economists' thinking about the firm has been nicely summarized by Mark Roe (1994, p. vii):

> Economic theory once treated the firm as a collection of machinery, technology, inventory,

> workers, and capital. Dump these inputs into a black box, stir them up, and one got outputs of products and profits. Today, theory sees the firm as more, as a management structure. The firm succeeds if managers can successfully coordinate the firm's activities; it fails if managers cannot effectively coordinate and match people and inputs to current technologies and markets. At the very top of the firm are the relationships among the firm's shareholders, its directors, and its senior managers. If those relationships are dysfunctional, the firm is more likely to stumble.[6]

With this new orientation, economic theory is playing an increasingly visible role in finance, accounting, management, and other areas once thought to be beyond the purview of economics.

Economic Calculation and the Limits to Firm Size

Unfortunately, the growing economics literature on the theory of the firm focuses mostly on the costs of market exchange, and much less on the costs of governing internal exchange. The new research has yet to produce a fully satisfactory explanation of the limits to firm size (Williamson 1985, chap. 6). In Coase's words, "Why does the entrepreneur not organize one less transaction or one more?" Or, more generally, "Why is not all production carried on in one big firm?" (Coase 1937, pp. 42–43). The theory of the limits to the firm is perhaps the most difficult and least well developed part of the new economics of organization. Existing contractual explanations rely on problems of authority and responsibility (Arrow 1974); incentive distortions caused by residual ownership rights (Grossman and Hart 1986; Holmström and Tirole 1989); and the costs of attempting to reproduce market governance features within the firm (Williamson 1985, chap. 6). It is here that Austrian theory has an obvious contribution to make, by applying Mises's theorem on the impossibility of economic calculation under socialism. Rothbard has shown how the need for monetary calculation in terms of actual prices not only explains the failures of central planning under socialism, but places an upper bound on firm size.

The Socialist Calculation Debate: A Brief Review

To understand Mises's position in the calculation debate, one must realize that his argument is not exclusively, or even primarily, about socialism. It is about the role of prices for capital goods. Entrepreneurs make decisions about resource allocation based on their expectations about future prices, and the information contained in present prices. To make profits, they need information about all prices, not only the prices of consumer goods but the prices of factors of production. Without markets for capital goods, these goods can have no prices, and hence entrepreneurs cannot make judgments about the relative scarcities of these factors. In short, resources cannot be allocated efficiently. In any environment, then—socialist or not—where a factor of production has no market price, a potential user of that factor will be unable to make rational decisions about its use. Stated this way, Mises's claim is simply that efficient resource allocation in a market economy requires well-functioning asset markets. Because scholars differ about what Mises "really meant," however, it may be useful here to provide a brief review of the debate.

Before 1920, according to the standard account,[7] socialist theorists paid little attention to how a socialist economy would work in practice, most heeding Marx's admonition to avoid such "utopian" speculation. Then Mises, known at the time mainly as a monetary theorist, published the sensational article later translated as "Economic Calculation in the Socialist Commonwealth" (1920).[8] Mises claimed that without private ownership of the means of production, there would be no market prices for capital goods, and therefore no way for decisionmakers to evaluate the relative efficiency of various production techniques. Anticipating the later argument for "market socialism," Mises argued that even if there were markets for consumer goods, a central planner could not "impute" meaningful prices to capital goods used to produce them. In short, without market-generated prices for both capital and consumer goods, even the most dedicated planner would find it "impossible" to allocate resources according to consumer wants.

Throughout the 1920s and early 1930s Mises's argument became the focus of intense discussion within the German-language literature. Eventually it was agreed that Mises was correct at least to point out that a socialist society could not do without such things as money and prices, as some early socialists had suggested, and that there was no feasible way to set prices according, say, to quantities of labor time. Nonetheless, it was

felt that Vilfredo Pareto and his follower Enrico Barone (1908) had shown that nothing was "theoretically" wrong with socialism, because the requisite number of demand and supply equations to make the system "determinate" would exist under either capitalism or socialism. If the planners could somehow get the necessary information on preferences and technology, they could in principle compute an equilibrium allocation of final goods.

The most important response to Mises, however, and the one almost universally accepted by economists, was what became known as "market socialism" or the "mathematical solution," developed by Fred Taylor (1929), H. D. Dickinson (1933), Abba Lerner (1934), and Oskar Lange (1936–37). In a system of market socialism, capital goods are collective property, but individuals are free to own and exchange final goods and services. The system would work like this. First, the Central Planning Board chooses arbitrary prices for consumer and capital goods. At those prices, the managers of the various state-owned enterprises are instructed to produce up to the point where the marginal cost of each final good is equal to its price, and then to choose the input mix that minimizes the average cost of producing that quantity. Then, consumer goods prices are allowed to fluctuate, and the Central Planning Board adjusts the prices of capital goods as shortages and surpluses of the final goods develop. Resources would thus be allocated according to supply and demand, through a process of "trial-and-error" essentially the same as that practiced by the managers of capitalist firms. Lange's contribution, it has generally been held, was to show that production under market socialism could be just as efficient as production under capitalism, since the socialist planners "would receive exactly the same information from a socialized economic system as did entrepreneurs under a market system" (Heilbroner 1970, p. 88).[9]

Market socialism was seen as an answer not only to Mises's calculation problem, but also to the issue of "practicality" raised by Hayek and Lionel Robbins. Hayek, in his contributions to *Collectivist Economic Planning* (Hayek, ed., 1935a), later expanded in "The Competitive Solution" (1940) and his well-known papers "Economics and Knowledge" (1937) and "The Use of Knowledge in Society" (1945), and Robbins, in his *The Great Depression* (1934), had changed the terms of the debate by focusing not on the problem of calculation, but on the problem of knowledge. For Hayek and Robbins, the failure of socialist organization is due to

a mechanism design problem, in that planners cannot allocate resources efficiently because they cannot obtain complete information on consumer preferences and resource availability. Furthermore, even if the planners were somehow able to acquire these data, it would take years to compute the millions of prices used by a modern economy. The Lange-Lerner-Taylor approach claimed to solve this preference-revelation problem by trial-and-error, so no actual computations would be necessary.[10]

With the widespread acceptance of the theory of market socialism, there developed an "orthodox line" on the socialist calculation debate, neatly summarized in Abram Bergson's well-known survey of "Socialist Economics" (1948) and in Joseph Schumpeter's *Capitalism, Socialism and Democracy* (1942, pp. 172–86). According to this line, Mises first raised the problem of the possibility of economic calculation under socialism, only to be refuted by Pareto and Barone; Hayek and Robbins then "retreated" to the position that socialist planners could calculate in theory, but that in practice the information problem would make this too difficult; then the market socialists showed that trial and error would eliminate the need for complete information on the part of the planners. Therefore, the argument goes, economic theory *per se* can say nothing conclusive about the viability of central planning, and the choice between capitalism and socialism must be purely political.

Calculation versus Incentives

The orthodox line on socialist planning has been modified in recent years with the development of incentive and information theory. The differences between capitalism and socialism, it is now typically held, lie in the different *incentive* properties of the two systems. Centrally directed systems are thought to be subject to greater agency costs—managerial discretion, shirking, and so on—than market systems (see, for example, Winiecki 1990). After all, Lange himself warned that "*the real danger of socialism is that of a bureaucratization of economic life*" (Lange 1936–37, p. 109; italics in original).

As has been pointed out elsewhere (Rothbard 1991, pp. 51–52), however, the calculation debate was *not* primarily about agency or managerial incentives. The incentive problem had long been known[11] (if not fully developed) and was expressed in the famous question: "Under socialism, who will take out the garbage?" That is, if everyone is compensated "according to his

needs," what will be the incentive to do the dirty and unpleasant tasks; or, for that matter, any tasks at all? The traditional socialist answer was that self-interest is a *product* of capitalism, and that socialism would bring about a change in human nature. In the worker's paradise would emerge a "New Socialist Man," eager to serve and motivated only by the needs of his fellows. These early theorists seem to have assumed, to borrow the expression used by Oliver Williamson (1991, p. 18) in a critique of a more recent socialist proposal, "the abolition of opportunism by agencies of the state." Experience has exposed the charming naiveté of such notions.

But Mises's challenge to socialism is distinct from this well-known incentive problem.[12] Assume for the moment that everyone is willing to work just as hard under central direction as under a market system. There still remains the problem of exactly what directives the Central Planning Board will issue. The Board will have to decide what goods and services should be produced, how much of each to produce, what intermediate goods are needed to produce each final good, and so on. In a complex, modern economy with multiple stages of production, resource allocation requires the existence of money prices for capital goods, prices that under capitalism arise from an ongoing process of competitive bidding by entrepreneurs for the factors of production. This process cannot be replicated by input-output analysis, computer simulations, or any other form of artificial market. Mises's main point was that socialism fails because decision makers require meaningful prices for all of these factors to choose from the vast array of possible factor combinations. "Without recourse to calculating and comparing the benefits and costs of production using the structure of monetary prices determined at each moment on the market, the human mind is only capable of surveying, evaluating, and directing production processes whose scope is drastically reduced to the compass of the primitive household economy" (Salerno 1990, p. 52).

The distinction between calculation and incentives is important because the modern economics literature on organizational design—from transaction cost explanations of firm size, to public choice theories of bureaucracy, to recent work on market socialism and the "soft budget constraint" (Kornai 1986)—focuses primarily on incentive problems (possibly encouraged by Lange's famous warning about bureaucracy). Incentive theory asks how, within a specified relationship, a principal can get an agent to do what he wants him to do. Mises's problem, however,

was different: How does the principal know *what* to tell the agent to do? That is, just what activities ought to be undertaken? What investments should be made? Which product lines expanded and which ones contracted? The ideas developed in the calculation debate suggest that when organizations are large enough to conduct activities that are exclusively internal—so that no reference to the outside market is available—they will face a calculation problem as well as an incentive problem.

In this sense, market-socialist proposals are mostly irrelevant to the real problems of socialist organization. This is the case Mises himself sought to make in his critique of market socialism in *Human Action* (Mises 1949, pp. 694–711). There he complained that the market socialists—and, for that matter, all general equilibrium theorists—misconceive the nature of "the economic problem." Lange, Lerner, and Taylor looked primarily at the problem of consumer goods pricing, while the crucial problem facing a modern economy concerns the capital structure: namely, in what way should capital be allocated to various activities? The market economy, Mises argued, is driven not by "management"—the performance of specified tasks, within a framework given to the manager—but by *entrepreneurship*, meaning the speculation, arbitrage, and other risk-bearing activities that determine just what the managerial tasks are. It is not managers but entrepreneurs, acting in the capital and money markets, who establish and dissolve corporations, create and destroy product lines, and so on. These are precisely the activities that even market socialism seeks to abolish. In other words, to the extent that incentives are important, what socialism cannot preserve is high-powered incentives not in management, but in entrepreneurial forecasting and decisionmaking.

Mises has been described as saying that it is unreasonable to expect managers of socialist enterprises to "play market," to act as if they were managers of private firms where their own direct interests were at stake. This may be true, but Mises's prime concern was that *entrepreneurs* cannot be asked to "play speculation and investment" (Mises 1949, p. 705). The relevant incentive problem, he maintains, is not that of the subordinate manager (the agent), who takes the problem to be solved as given, but that of the speculator and investor (the principal), who decides just what is the problem to be solved. Lange, Lerner, and Taylor see the market through a strictly static, neoclassical lens, where all the parameters of the system are given and only a

computational problem needs to be solved. In fact the market economy is a dynamic, creative, evolving *process*, in which entrepreneurs—using economic calculation—make industries grow and shrink, cause new and different production methods to be tried and others withdrawn, and constantly change the range of available products. It is *these* features of market capitalism, and not the incentives of agents to work hard, that are lost without private property ownership.

Indeed, traditional command-style economies, such as that of the former U.S.S.R., appear to be able only to mimic those tasks that market economies have performed before; they are unable to set up and execute original tasks.

> The [Soviet] system has been particularly effective when the central priorities involve catching up, for then the problems of knowing what to do, when and how to do it, and whether it was properly done, are solved by reference to a working model, by exploiting what Gerschenkron . . . called the "advantage of backwardness.". . . Accompanying these advantages are shortcomings, inherent in the nature of the system. When the system pursues a few priority objectives, regardless of sacrifices or losses in lower priority areas, those ultimately responsible cannot know whether the success was worth achieving. The central authorities lack the information and physical capability to monitor all important costs—in particular opportunity costs—yet they are the only ones, given the logic of the system, with a true interest in knowing such costs. (Ericson 1991, p. 21)

Without economic calculation, there is no way to figure out if tasks have been performed efficiently. Hence without markets for physical and financial capital—which determine what tasks will be performed and whether they have been performed adequately—an economic system has difficulty generating anything *new*, and must rely on outside references to tell it what to do. Of course, the only reason the Soviet Union and the communist nations of Eastern Europe could exist at all is that they never fully succeeded in establishing socialism worldwide, so they could use world market prices to establish implicit prices for the goods they bought and sold internally (Rothbard 1991, pp. 73–74). In Mises's words, these economies

> were not isolated social systems. They were operating in an environment in which the price system still worked. They could resort to economic calculation on the ground of the prices established abroad. Without the aid of these prices their actions would have been aimless and planless. Only because they were able to refer to these foreign prices were they able to calculate, to keep books, and to prepare their much talked about plans. (Mises 1949, pp. 698–99)

As we will see below, the firm is in the same situation: it needs outside market prices to plan and evaluate its actions.

Rothbard and the Limits of Organization

Rothbard's main contribution to the theory of the firm was to generalize Mises's analysis of the problem of resource allocation under socialism to the context of vertical integration and the size of the organization. Rothbard writes in *Man, Economy, and State* that up to a point, the size of the firm is determined by costs, as in the textbook model. But "the ultimate limits are set on the relative size of the firm by the necessity for *markets* to exist in every factor, in order to make it possible for the firm to calculate its profits and losses" (Rothbard 1962, p. 536). This argument hinges on the notion of "implicit costs." The market value of opportunity costs for factor services—what Rothbard calls "estimates of implicit incomes"—can be determined only if there are external markets for those factors (pp. 542–44). For example, if an entrepreneur hires himself to manage his business, the opportunity cost of his labor must be included in the firm's costs. But without an actual market for the entrepreneur's managerial services, he will be unable to figure out his opportunity cost; his balance sheets will therefore be less accurate than they would if he could measure his opportunity cost.

The same problem affects a firm owning multiple stages of production. A large, integrated firm is typically organized as groups of semiautonomous business units or "profit centers," each unit or division specializing in a particular final or intermediate product. The central management of the firm uses the implicit incomes of the business units, as reflected in statements of divisional profit and loss, to allocate physical and financial capital across the divisions. More profitable divisions

are expanded, while less profitable divisions are scaled back. Suppose the firm has an upstream division selling an intermediate component to a downstream division. To compute the divisional profits and losses, the firm needs an economically meaningful "transfer price" for the component. If there is an external market for the component, the firm can use that market price as the transfer price.[13] Without a market price, however, a transfer price must be estimated in another way.

In practice, this is typically done on a cost-plus basis; sometimes, the buying and selling divisions are left free to bargain over the price (Eccles and White 1988; Shelanski 1993; King 1994). At the very least, any artificial or substitute transfer prices will contain less information than actual market prices; Rothbard (1962, p. 547) puts it more strongly, calling a substitute price "only an arbitrary symbol." In either case, firms relying on these prices will suffer. "Not being able to calculate a price, the firm could not rationally allocate factors and resources from one stage [or division] to another" (p. 547). The use of internally traded intermediate goods for which no external market reference is available introduces distortions that reduce organizational efficiency. This gives us the element missing from contemporary theories of economic organization, an upper bound: the firm is constrained by the need for external markets for all internally traded goods. In other words, no firm can become so large that it is both the unique producer and user of an intermediate product; for then no market-based transfer prices will be available, and the firm will be unable to calculate divisional profit and loss and therefore unable to allocate resources correctly between divisions. As Rothbard puts it:

> Since the free market always tends to establish the most efficient and profitable type of production (whether for type of good, method of production, allocation of factors, or size of firm), we must conclude that complete vertical integration for a capital-good product can never be established on the free market (above the primitive level). *For every capital good, there must be a definite market in which firms buy and sell that good*. It is obvious that this economic law *sets a definite maximum to the relative size of any particular firm on the free market*. . . . Economic calculation becomes ever more important as the market economy develops and

> progresses, as the stages and the complexities of type and variety of capital goods increase. Ever more important for the maintenance of an advanced economy, then, is the preservation of *markets* for all the capital and other producers' goods. (pp. 547–48; italics in original)

Like the centrally planned economy, the firm needs market signals to guide its actions; without them the firm cannot survive. Note that in general, Rothbard is making a claim only about the upper bound of the firm, not the incremental cost of expanding the firm's activities (as long as external market references are available). As soon as the firm expands to the point where at least one external market has disappeared, however, the calculation problem exists. The difficulties become worse as more and more external markets disappear, as "islands of noncalculable chaos swell to the proportions of masses and continents. As the area of incalculability increases, the degrees of irrationality, misallocation, loss, impoverishment, etc., become greater" (p. 548). In other words, the firm is limited by the extent to which markets exist for the goods it allocates internally. Without market prices for these goods, the firm must rely on relatively costly and inefficient methods of generating its own accounting prices, to perform internal calculations.[14]

Significantly, it is at this point in the discussion in *Man, Economy, and State* (p. 548) that Rothbard launches into a discussion of the socialist calculation debate, making it obvious that the two issues are inextricably linked. The reason that a socialist economy cannot calculate is not that it is socialist, but because a single agent owns and directs all resources. Expanding on this point in his 1976 essay on "Ludwig von Mises and Economic Calculation Under Socialism," Rothbard explains:

> There is one vital but neglected area where the Mises analysis of economic calculation needs to be expanded. For in a profound sense, the theory is not about socialism at all! Instead, it applies to *any* situation where one group has acquired control of the means of production over a large area—or, in a strict sense, throughout the world. On this particular aspect of socialism, it doesn't matter whether this unitary control has come about through the coercive expropriation brought about by socialism or by voluntary processes on the free

> market. For what the Mises theory focuses on is not simply the numerous inefficiencies of the political as compared to the profit-making market process, but the fact that a market for capital goods has disappeared. This means that, just as Socialist central planning could not calculate economically, no One Big Firm could own or control the entire economy. The Mises analysis applies to any situation where a market for capital goods has disappeared in a complex industrial economy, whether because of socialism or because of a giant merger into One Big Firm or One Big Cartel. (Rothbard 1976, p. 75)

The Mises analysis thus applies to any situation where the market for a particular capital good disappears because a firm has become so large that it is the unique producer and user of that capital good. As we have seen, such a firm will not be viable.

It is surprising that Rothbard's extension of Mises's argument has received virtually no attention in the Austrian literature, even though the point appears four times in *Man, Economy, and State* (p. 536, p. 543, pp. 547–48, and p. 585) and again in the 1976 essay.[15] The argument needs further development and elaboration, which should prove a useful exercise because the contemporary literature on the size of the firm lacks an adequate explanation for the limits to organization. The Rothbard analysis also suggests a line of research in business strategy: all else equal, firms able to use market-based transfer prices should outperform, in the long run, firms using administered or negotiated transfer prices.[16] As of yet, there is little empirical work on this topic, despite the possible emergence of an "Austrian school of strategy" (Jacobson 1992). A related issue that has received considerable attention, however, is the difficulty of allocating overhead or fixed cost across divisions. If an input is essentially indivisible (or nonexcludable), then there is no way to compute the opportunity cost of just the portion of the input used by a particular division (see Rogerson 1992, for a discussion of these problems).[17] Firms with high overhead costs should thus be at a disadvantage relative to firms able to allocate costs more precisely between business units. Indeed, in the literature on cost accounting there has been some recent interest in "market simulation accounting" (Staubus 1986), by

which firms try to assess the price at which an asset would trade in an active market, based on observed market prices and related information. The Rothbardian position on the limits to firm size suggests that the market simulation approach may prove a useful accounting technique.

By the time of the 1976 paper, Rothbard had adopted an explicitly Coasian framework in his discussion of the limits to firm size. His own treatment, Rothbard says,

> serves to extend the notable analysis of Professor Coase on the market determinants of the size of the firm, or the relative extent of corporate planning within the firm as against the use of exchange and the price mechanism. Coase pointed out that there are diminishing benefits and increasing costs to each of these two alternatives, resulting, as he put it, in an "'optimum' amount of planning" in the free market system. Our thesis adds that the costs of internal corporate planning become prohibitive as soon as markets for capital goods begin to disappear, so that the free-market optimum will always stop well short not only of One Big Firm throughout the world market but also of *any* disappearance of specific markets and hence of economic calculation in that product or resource. (Rothbard 1976, p. 76)

This is noteworthy because even as late as 1972, Coase was describing his 1937 paper as "much cited and little used" (Coase 1972, p. 62). Alchian and Demsetz's "Production, Information Costs, and Economic Organization" came out only in 1972, and Williamson's *Markets and Hierarchies* in 1975. Rothbard was thus among the earliest writers to develop and extend the Coasian perspective.

Managerial Discretion and the Financial Markets [18]

As mentioned above, much current research in the theory of the firm focuses on the agency problem. Under what conditions can managers exercise discretionary behavior? What kinds of rules, or mechanisms, can be designed to align the manager's interest with the owner's? Without effective rules, what actions will

managers choose? An early application was the alleged "separation of ownership and control" in the modern corporation. Berle and Means (1932) argued that the modern firm is run not by its owners, the shareholders, but by salaried managers, whose interests are different from those of shareholders and include executive perks, prestige, and similar rewards. If the corporation is diffusely held, no individual shareholder has sufficient motivation to engage in (costly) monitoring of managerial decisions, and therefore discretion will flourish at the expense of the market value of the firm.

Henry Manne's essay, "Mergers and the Market for Corporate Control" (1965), responded that managerial discretion will be limited as long as there is an active market for control of corporations. When managers engage in discretionary behavior, the share price of the firm falls, and this invites takeover and subsequent replacement of incumbent management. Hence while managers may hold considerable autonomy over the day-to-day operations of the firm, the stock market places strict limits on their behavior.[19] To be sure, there is a large and divergent literature on the effectiveness of the takeover mechanism in providing managerial discipline (see Romano 1992 for a summary). If managers desire acquisitions to increase their own prestige or span of control—to engage in "empire building"—then an unregulated market will generate "too many takeovers." Other critics point out that if the difference between the current (undervalued) price of the firm and its after-takeover market value is common knowledge, then the target firm's shareholders will refuse to tender their shares until the current price is bid up, appropriating a share of the returns to the acquiring firm's shareholders. Under those conditions, the market will generate "too few" takeovers.[20]

The central insight of Manne's paper is also found in Mises's *Human Action* (1949), in the passage distinguishing what Mises calls "profit management" from "bureaucratic management" (pp. 308–11). It is true, Mises acknowledges, that the salaried managers of a corporation hold considerable autonomy over the day-to-day operations of the firm. Nonetheless, the shareholders make the ultimate decisions about allocating resources to the firm, in their decisions to buy and sell stock:

> [The Berle-Means] doctrine disregards entirely the role that the capital and money market, the stock and bond exchange, which a pertinent idiom simply

> calls the "market," plays in the direction of corporate business. . . . [T]he changes in the prices of common and preferred stock and of corporate bonds are the means applied by the capitalists for the supreme control of the flow of capital. The price structure as determined by the speculations on the capital and money markets and on the big commodity exchanges not only decides how much capital is available for the conduct of each corporation's business; it creates a state of affairs to which the managers must adjust their operations in detail. (p. 303)

Mises does not identify the takeover mechanism *per se* as a means for capitalists to exercise control—takeovers were much less popular before the late 1950s, when the tender offer began to replace the proxy contest as the acquisition method of choice—but the main point is clear: The true basis of the market system is not the product market, the labor market, or the managerial market, but the capital market, where entrepreneurial judgments are exercised and decisions carried out.[21]

As discussed above, Mises's treatment of the importance of financial markets is also the key to his final rebuttal in *Human Action* to Lange, Lerner, and the other market-socialist critics of his calculation argument (Mises 1949, pp. 694–711). The market socialists, he argued, fail to understand that the main task performed by a market system is not the pricing of consumer goods, but the allocation of capital among various branches of industry. By focusing on production and pricing decisions within a *given* structure of capital, the socialists ignore the vital role of capital markets. Rothbard (1993) notes that the same criticism can be applied to the textbook, production-function model of the firm, where capital is also taken for granted. "Neoclassical microtheory talks about 'managers' producing up to the point where MR = MC, without ever talking about who or what is allocating capital to them. In short, neoclassical firms are implicitly assumed to have a fixed amount of capital allocated to them . . . and they can *only* use that capital to invest in their own firm and nowhere else. Hence, the nonsensical conclusion that each firm's manager will try to squeeze out the last cent of profit, pushing production until MR = MC." Fortunately, the new literature on transaction-cost determinants of contractual relations has begun to bring capital back into the received

microtheory.

Finally, on the subject of the Berle-Means doctrine, Mises notes in *Human Action* that "the emergence of an omnipotent managerial class is not a phenomenon of the unhampered market economy," but a result of government policy (Mises 1949, p. 307). Here he expands upon his earlier analysis in *Bureaucracy* (1944), where he attacks the claim that bureaucracy follows naturally from firm size. Mises conceives of bureaucracy as rule-following, as opposed to profit-seeking, behavior. He reserves the term "bureaucratic management" for the governing of activities that have no cash value on the market. As long as a firm's inputs and outputs are bought and sold, the central management of the firm will have the information provided by market prices to evaluate the efficiency of the various branches and divisions within the firm. Then subordinate managers can be given wide discretion to make daily operational decisions.[22] If an organization produces a good or service that has no market price —the output of a government agency, for example—then subordinate managers must be given specific instructions for how to perform their tasks.

The fact that managers in a private firm have latitude to make day-to-day decisions, Mises argues, does not make the firm "bureaucratic." "[N]o profit-seeking enterprise, no matter how large, is liable to become bureaucratic provided the hands of its management are not tied by government interference. The trend toward bureaucratic rigidity is not inherent in the evolution of business. It is an outcome of government meddling with business" (Mises 1944, p. 12). By this Mises means that government interference impedes the entrepreneur's use of economic calculation and the attempt to use prices to impose managerial discipline. Mises gives three examples (pp. 64–73): taxes and price regulations that interfere with corporate profits (distorting an important signal of managerial performance); laws that interfere with hiring and promotion (including the need to hire public relations staffs and legal and accounting personnel to comply with government reporting requirements); and the omnipresent threat of arbitrary antitrust or regulatory activity, in response to which entrepreneurs must become adept at "diplomacy and bribery" (p. 72).

Mark Roe (1994) develops a similar argument in his recent work on the politics of corporate finance. The phenomenon he calls "strong managers, weak owners" is not an outgrowth of the market process; it is the result of legal restrictions on firm

ownership and control. In the U.S., for example, banks and other institutions are forbidden from owning firms; antitrust laws prohibit industrial combinations like the Japanese *keiretsu*; and anti-takeover restrictions dilute the disciplinary effects of the takeover mechanism. Laws that require diffuse ownership create what Roe terms the "Berle—Means corporation," in which "fragmented ownership shifts power in the firm to managers" (p. 93).[23] Absent such legal restrictions, Mises would argue, managerial autonomy is no inefficiency; it's an essential tool for operating a large, decentralized organization. But the firm must have accurate divisional accounting statements to evaluate managerial performance, and for this it needs the information contained in market prices.

Alternative Austrian Approaches: Knight, Uncertainty, and "Market-Based Management"

Recently, some Austrian economists have suggested that the Coasian framework may be too narrow, too squarely in the general-equilibrium tradition to deal adequately with Austrian concerns (Boudreaux and Holcombe 1989; Langlois 1994a). They contend that the contemporary theory of the firm, following Coase, retains the perspective of static equilibrium analysis and profit maximization over a fixed set of outcomes with known probabilities. As an alternative, some writers propose the framework in Frank Knight's *Risk, Uncertainty, and Profit* (1921). The Knightian framework, they argue, offers genuine uncertainty, disequilibrium and process analysis, and thus a scope for real entrepreneurship—aspects purportedly more congenial to Austrians. "The Coasian and Knightian theories of the firm deal with the issue [of the existence of firms] from two different vantage points. The Coasian theory takes the inputs and outputs in the firm's production process as given, and models the firm as an organization that acts to minimize the costs of transforming these inputs into outputs. . . . However, in Knight's model, entrepreneurship is the primary role of the firm" (Boudreaux and Holcombe 1989, p. 152). Williamson's transaction cost economics, as characterized by Langlois (1994a, p. 175), does broaden the notion of cost minimization to include transaction costs as well as production costs, but it remains essentially a static exercise with a limited role for expectations: "Seldom does the theory give thought to the possibility that organizational forms may be influenced as much by

environments that exist only as future possibilities, imagined or feared."

These descriptions, however, paint with too broad a brush; as Foss (1993c) has recently pointed out, there are "two Coasian traditions." One tradition, the nexus-of-contracts branch associated with Alchian and Demsetz (1972), studies the design of *ex ante* mechanisms to limit shirking when supervision is costly. Here the emphasis is on monitoring and incentives in an (exogenously determined) moral-hazard relationship. The aforementioned criticisms may apply to this branch of the modern literature, but they do not apply to the other tradition, the governance or asset-specificity branch, especially in Williamson's more heterodox formulation. Williamson's transaction cost framework incorporates non-maximizing behavior (bounded rationality); true, "structural" uncertainty or genuine surprise (complete contracts are held not to be feasible, meaning that all *ex post* contingencies cannot be contracted upon *ex ante*); and process or adaptation over time (trading relationships develop over time, typically undergoing a "fundamental transformation" that changes the terms of trade). In short, "at least some modern theories of the firm do not at all presuppose the 'closed' economic universe—with all relevant inputs and outputs being given, human action conceptualized as maximization, etc.—that [some critics] claim are underneath the contemporary theory of the firm" (Foss 1993a, p. 274). Stated differently, one can adopt an essentially Coasian perspective without abandoning the Knightian or Austrian view of the entrepreneur as an uncertainty-bearing, innovating decision maker.[24]

Similarly, the approach described in this paper differs from that advanced in the recent literature on "market-based management" (Eilig 1993; Eilig and Gable 1993). Market-based management is the philosophy that firm success depends critically on the ability to replicate market-like features within the organization. One of these is "internal markets" for intermediate goods (and services such as financial, legal, accounting, and R&D support) along with the establishment of strict profit-center divisions. Like market prices, these internal prices convey information about local circumstances. Other features include an explicit "mission" or recognition of the firm's core competence, clearly defined roles and responsibilities for lower-level employees (analogous to property rights in a market economy), employee rewards based on performance (a profit-

and-loss system), a well-defined "corporate culture" (customs, behavioral norms), and decentralized decision making.

Underlying market-based management is the team-production or nexus-of-contracts model of the firm advanced by Alchian and Demsetz (1972), supplemented with the "capabilities" theory of Edith Penrose (1959), G. B. Richardson (1972), and David Teece (1980, 1982). This is not the appropriate place for an extended discussion of the capabilities view; suffice it to say that this literature has both its defenders and its detractors.[25] The relevant point here is that the literature on market-based management, like other writings in the nexus-of-contracts tradition, mischaracterizes the nature of "planning" within the firm. For example, it attributes to the Coase-Williamson tradition the view that "internal markets are doomed to failure, because the business firm is by nature a command hierarchy" (Eilig 1993, p. 9). The Coasian tradition, however, does not imply that firms do or should adopt a command-and-control structure; on the contrary, as we have already seen, the modern firm will tend to be significantly decentralized, so that managers and workers at all levels of operations can make use of local knowledge. All decisions are not made from above, by executive fiat; the "M-form" corporation described by Williamson and Chandler is a *blend* of market and hierarchy, of centralization and decentralization.

In other words, the entrepreneur does make *some* decisions by "fiat"; the firm is definitely a "taxis," rather than a "cosmos" (to use Hayek's esoteric terminology). This does not imply, however, that *all* decisions must be made from the top; we can agree with the market-based management literature that "neither central planning nor command-and-control are the defining characteristics of a business firm" (p. 11). Indeed, given competition in the product and factor markets, firms will always tend to select the optimum amount of "market-like" features. The firm's problem, then, is not too much "conscious" planning; the crucial issue is whether these plans are made, and tested, from within a larger market setting. The entrepreneur's plans can be carried out, as we saw above, only when there are definite markets for all internally traded goods or activities. What firms need is not necessarily internal markets, but the information generated by market prices.

Conclusion

The purpose of this paper has been to highlight some Austrian contributions to the theory of the firm and to suggest directions for future research along the same lines. In particular, Rothbard's argument about the need for markets in intermediate goods, and how that places limits on the scale and scope of the organization, deserves further development. This may be a more fruitful exercise than some work in the alternative Austrian traditions.

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[1] For overviews of the new institutional economics and the theory of the firm, see Coase (1991); Furubotn and Richter (1991); Holmström and Tirole (1989), Langlois (1994b), and *Journal of Institutional and Theoretical Economics* (March 1993, March 1994, and March 1995). For a survey of related empirical work see Shelanski and Klein (1995).

[2] The framework of transaction cost economics has already made it into textbook form: Kreps (1990, pp. 744–90), Rubin (1990), Milgrom and Roberts (1992), Baye and Beil (1994), and Acs and Gerlowski (1996).

[3] I have in mind recent work by Boudreaux and Holcombe (1989), Foss (1993a, 1993b, 1993c), Langlois (1988, 1992a, 1992b), and Minkler (1993a, 1993b).

[4] For critiques of instrumentalism see Rizzo (1985) and Batemarco (1985). For references to the interpretative literature on Milton Friedman's 1953 essay on "positive economics"—the source of most economists' views on method—see Boland (1979), Caldwell (1980), and Musgrave (1981); all reprinted in Caldwell (1984) along with De Marchi (1988).

[5] Indeed, Williamson's transaction cost economics is sometimes described as the "governance" or asset-specificity branch of the New Institutional Economics, as opposed to the "measurement" or team production branch (associated with Alchian and Demsetz 1972).

[6] Austrians would add that capital, land, and labor —"management" included—are not the only inputs or factors of production. There is also *entrepreneurship* or uncertainty bearing, and what Rothbard (1962, pp. 538–41) calls *ownership* or the "decision-making factor." On this see also Mises (1949, pp. 291–52, and pp. 66–68) below.

[7] For examples of the "standard account" of the calculation debate see Schumpeter (1942, pp. 172–86) and Bergson (1948). My discussion of the "revisionist view" follows Hoff (1949), Salerno (1990), and Rothbard (1991).

[8] Other works that made arguments similar to that of Mises include N. G. Pierson's "The Problem of Value in the Socialist Community" (1902) and parts of Max Weber's *Economy and Society* (1921).

[9] It would no doubt be gratuitous to point out that since the collapse of central planning in Eastern Europe the writer of that comment has changed his mind, writing that although "[f]ifty years ago, it was felt that Lange had decisively won the argument for socialist planning," now "[i]t turns out, of course, that Mises was right" (Heilbroner 1990, p. 92).

[10] Lange actually claimed years later that even market socialism would be made obsolete with the advent of high-speed computers, which could instantly solve the huge system of simultaneous equations for the central planner. "Were I to rewrite my [1936] essay today my task would be much simpler. My answer to Hayek and Robbins would be: So what's the trouble? Let us put the simultaneous equations on an electronic computer and we shall obtain the solution in less than a second. The market process with its cumbersome *tâtonnements* appears old fashioned. Indeed, it may be considered as a computing device of the pre-electronic age" (Lange 1965, pp. 401–2). Obviously, Lange did not have much experience with a

computer. Also, during his time as chairman of the Polish Economic Council in the 1950s, Lange never tried to put market socialism into practice (see Lange 1958).

[11] We tend to forget just how old the idea of socialism is, that it is not a twentieth-century invention; the subtitle of Alexander Gray's famous book The Socialist Tradition (1946) is "Moses to Lenin."

[12] Mises does devote a section of the 1920 paper to "Responsibility and Initiative in Communal Concerns," but he clearly considers this a secondary problem for socialist planners, not the primary one.

[13] Rothbard (1962, pp. 900–1, n. 56) notes that the implicit transfer price may be somewhat more or less than the existing market price, since the entry of either the buying or the selling division into the external market may bid the price up or down slightly. Unlike Hirshleifer (1956), then, Rothbard does not require the external market to be perfectly competitive for a market-based transfer price to be economically meaningful. For Rothbard, "thin" markets are adequate: all that is necessary to have a genuine "external market" is the existence of at least one other producer (seller) of the intermediate good.

Of course, if external prices are perfectly competitive, then the economy must be in a competitive general equilibrium, in which information is perfect and all contracts are complete, and in which there is thus no need for firms.

[14] This does not mean that because external prices are necessary for large firms to function efficiently, firms will necessarily become larger where external markets are "thick" or better developed. On the contrary, large firms typically arise precisely where external markets are poorly developed or hampered by government intervention; these are the kinds of circumstances that give entrepreneurs an advantage in coordinating activities internally. However, such firms are still constrained by the need for *some* external market reference.

[15] Lavoie briefly notes the Rothbard analysis in his *Rivalry and Central Planning* (1985, p. 62n). Fritz Machlup, in a comment on Rothbard's 1976 essay, says he is "intrigued" by the analogy between the central planner's problem and the firm's problem, calling it "an issue I have tried to sell in several of my publications . . . but unfortunately not with sufficient success" (Machlup 1976, p. 114). He cites an early book (Machlup 1934, esp. pp. 209–14) and a later article (Machlup 1974, esp. pp. 42–45 and 52–54), both published in German, on the problem of

"artificial" transfer prices. The argument is also foreshadowed by Hayek in *Prices and Production* (1935b, p. 63) in a discussion on vertical integration.

[16] This line of reasoning has interesting implications for the study of innovation. Since the innovating firm is more likely to be using unique intermediate goods, innovation carries with its benefits the cost of more severe internal distortions. Economic calculation is then another obstacle the innovator must overcome.

[17] Mises (1944, p. 32) recognized the problem of allocating overhead costs, mentioning this as a possible exception to the notion that divisional accounting costs can reflect "true" costs.

[18] This section is based on Klein (1994, pp. 397–98).

[19] There are other mechanisms to limit managers' discretionary activities, such as the market for managers itself; on this see Fama (1980). Williamson (1975) argues that the capital market, as an outside control device, tends to be less effective than an internal device, such as the adoption of the "M-form" structure. Fama's article, along with Manne's and several other important papers on this topic, is collected in Putter-man, ed. (1986).

[20] The flaw in the latter argument is that shareholders will *not* in general have the same information as incumbent managers, outside "raiders," and other specialists. It is not in the small shareholder's interest to learn these details; that is why he delegates such responsibilities to managers in the first place. The raider who discovers a difference between a firm's current market value and its potential value under new management has an opportunity for an entrepreneurial profit (less the transaction costs of takeover). Because shareholders have delegated these responsibilities, they will not in general earn a share of this profit. As Rothbard (1962, p. 372) observes, however, since shareholders (owners) *choose* to delegate operational responsibility to managers—contracting out, if you will, for the managerial function—they themselves retain the ultimate rights of corporate control.

[21] Compare Rothbard (1962, p. 538): "Hired managers may successfully direct production or choose production processes. But the ultimate responsibility and control of production rests inevitably with the *owner*, with the businessman whose property the product is until it is sold. It is the owners who make the decision concerning how much capital to invest

and in what particular processes. And particularly, it is the *owners* who must choose the managers. The ultimate decisions concerning the use of their property and the choice of the men to manage it must therefore be made by the owners and by no one else."

[22] Chapter 1 of *Bureaucracy*, on profit management and the sources of entrepreneurial profit, contains a remarkably lucid account of economic calculation under capitalism and its impossibility under socialism. "To the entrepreneur of capitalist society a factor of production through its price sends out a warning: Don't touch me, I am earmarked for another, more urgent need. But under socialism these factors of production are mute" (Mises 1944, p. 29).

Mises also provides a very Coase-like discussion of the make-or-buy decision, though without citation (p. 33).

[23] On the relationship between corporate governance and economic performance, see also Gilson (1995).

[24] Nor do all Coasian perspectives deny the importance of specialized knowledge or routines in determining a firm's capabilities or "core competence." Transaction cost economics, for example, simply holds that the need for *ex post* governance of contracts in the presence of relationship-specific investments, and not "tacit knowledge" *per se*, is the most useful way to think about the boundaries of the firm. For the case that Austrian economics is more compatible with the capabilities literature (for substantive, not only methodological, reasons), see Minkler (1993b) and Langlois (1944a).

[25] For critical surveys see Conner (1991) and Teece, Pisano, and Shuen (1992).

Cartels as Efficient Productive Structures

Pascal Salin

Cartels are considered to be specific productive structures which allow producers to exert a monopoly power. Evaluation of the working of cartels is thus closely linked to the theory of competition and monopoly which one adopts. This field of economics is certainly one of those in which Murray Rothbard[1] has made breakthrough contributions. He has persuasively shown that there is no monopoly power as far as there are only voluntary arrangements. From this point of view, freedom of entry in production is the only relevant criterion to evaluate productive structures and one might dismiss as irrelevant all the other traditional conditions of the pure and perfect competition theory. In the present article we will not address this general debate about competition and monopoly and we accept the views of Murray Rothbard without any discussion. Our precise aim is rather to look for the specific characteristics of cartels and to evaluate them under the light of this approach. Cartels are generally considered negatively as formal arrangements to restrict production. After having discussed this approach we explain why cartels rather play a positive role in meeting some specific demands of the market. As a consequence they modify the frontier between the firm and the market.

The Cartel as a Restrictive Structure of Production

The traditional theory of pure and perfect competition focuses on the number of participants and, as such, introduces a strong opposition between the competitive case in which demand is perfectly elastic (from the point of view of the individual producer), and the monopoly case in which demand is inelastic, which makes possible for the monopolist to extract a “super-profit.” In between is the case of the oligopoly, namely the troublesome case in which there are a few producers on a market.[2]

What is wrong in the traditional theory is not the *formal*

analysis of monopoly or oligopoly, but the confusion it has made between the end result and the process. The number of firms on a specific market at one given time is the provisional outcome of a specific process and it has no meaning by itself. On the contrary, the fact that the process is based on the use of public constraint or is purely spontaneous makes the difference. Thus, it is not true that super-profit exists whenever there is freedom of entry on a market, since one cannot explain, in such a case, why there are no more producers trying to get such a super-profit. But the traditional analysis of monopoly is clearly and directly appropriate when applied to the case of a public privilege, namely the existence of a public barrier to entry: In that latter case, the formal analysis of monopoly is a correct description of reality. In this case only does a super-profit exist.

Now, what about the case of a small number of producers, which is the scope of analysis both of the theory of oligopoly and the theory of cartels? Let us assume that for some technical or historical reasons, only a limited number of firms exist at one given time (the possible economies of scale not being large enough as to justify the existence of only one producer). Each producer has to elaborate a strategy of his own in an environment of imperfect information (since the decisions of each producer affect the state of the market, but no one knows about the intentions of others). Thus, authors such as Heinrich von Stackelberg have shown that the outcome of the process may be different according to the strategies followed by different producers. There are, for instance, cooperative and non-cooperative processes, equality between the producers or a distinction between a leader and followers, etc. Once more, these assumptions may have interesting applications. They are debatable as far as they tend to introduce the idea of a monopoly situation in the absence of any public privilege.

A distinction seems to be frequently made between an oligopoly and a cartel. A cartel could be defined as a specific oligopoly in which the different producers, instead of just interacting, enter into a process of explicit cooperation. Thus, a cartel is viewed as an agreement between different producers in order to follow common rules or behaviors, i.e., a system of mutual and freely accepted obligations.

It is usually assumed that this agreement can be explained by a common *intention* of participants, namely creating a monopoly position. Therefore, participants who do not face a perfectly elastic demand are able to extract a super-profit from

purchasers, which they would be unable to obtain without such an agreement. Thus, cartels are mainly viewed as having a negative aspect, as is expressed in the usual saying that cartels are collusive.

In the traditional theory the super-profit is shared between participants according to *a priori* rules, for instance their market shares. It is well-known that cartels are considered unstable structures, since participants are tempted to become free riders: Although they have an interest in others' respecting the agreement, they can expect a larger share of the common super-profit by introducing some degree of competition with regard to their partners.

The cartel is sometimes considered as worse than the monopoly. In fact, it is often assumed that a monopoly exists for purely technical reasons, for instance because techniques are such that large economies of scale make it impossible for several firms to coexist in the most profitable way (natural monopoly). [3] In such cases no normative judgment is issued against the monopoly, but it is argued only that the state has to prevent the assumed *exploitation* of consumers by regulating the monopoly or by nationalizing it. The value judgment concerning cartels is more critical since it is assumed that there is no technical reason for any monopolist position, but that the cartel is created *ex nihilo* by an explicit agreement between producers in order to exploit purchasers. From this point of view any cartel arrangement ought to be prohibited, for the cartel exists *in order to* create restrictive procedures.

In fact, as we shall see later, this negative approach to the cartel is a direct consequence of the traditional theory of competition. According to it, pure or perfect competition can only exist when a great number of (identical) producers produce a homogeneous good. In fact this theory does not describe a real process of competition between real entrepreneurs, but the technical organization of managers in a noninnovative system, for instance the managers of plants in a Soviet-style centralized system of production: It is assumed that there is one single technique—an *optimal* technique from a purely technical point of view—to produce a given good and all (numerous) managers have to apply exactly the same technique to produce exactly the same good. In that sense, it can be said that the theory of pure and perfect competition is in fact a theory of central planning. [4]

The Austrian theory of competition leads to an opposite view. The end result of a competitive process is not the

production of identical goods by numerous producers, but, on the contrary, the *differentiation* of goods produced by entrepreneurs who are innovators and who are induced by competition—namely the free entry of potential competitors—to offer better goods at lower prices.

Therefore, as far as cartel agreements intend the homogenization of goods (either of their specific characteristics or their price), one may wonder for which category of theories it could be a problem. From the point of view of a supporter of the traditional approach of competition, the problem may not be that of homogenizing goods, but of creating monopoly power. From the point of view of the supporter of the Austrian theory of competition, there is no such thing as monopoly power, as far as the process of monopolization by cartels is spontaneous. But the reason for homogenization has to be clarified—which we will try to do later—since the merit of competition relies on the fact that it induces *differentiation*.

The approach used by Murray Rothbard to study the specific case of cartels seems to be the following: He accepts the idea according to which cartels are a system of collusion aiming at introducing some restrictive actions in a productive system (rarefaction of production). However, he shows that, on the one hand, restrictive actions of producers are perfectly justified and that, on the other hand, cartels cannot create monopoly power since such power cannot exist as long as there is free entry on a market. Thus, in Murray Rothbard's view, if producers organize themselves into a restrictive agreement—a cartel—it is to meet a demand by purchasers for a restrictive action. The argument goes as follows. A monopoly position can be reached by a single producer or a set of producers organized into a cartel only if demand is inelastic, which makes restriction of production possible and profitable. But, it is up to demanders not to have an inelastic demand: If ever they were unsatisfied with the cartel's behavior, they could decide on having a perfectly elastic demand, i.e., not accepting an increase in prices through the restriction of production. As Murray Rothbard wrote,

> If the consumers were really opposed to the cartel action, and if the resulting exchanges really hurt them, they would boycott the "monopolistic" firm or firms, they would lower their purchasing so that the demand curve became *elastic*, and the firm would be forced to increase its production and

> reduce its price again. If the "monopolistic price" action had been taken by a cartel of firms, and the cartel had no other advantages for rendering production more efficient, it would then have to disband, because of the now demonstrated elasticity of the demand schedule.[5]

By saying that demanders could react against the cartel by lowering their purchases, he implicitly assumes that the good produced by the cartel has close substitutes, so that the demanders can decline the restrictive action of producers (and the corresponding increase in prices) by shifting to these substitutes, without any significant loss of utility.

Thus, if a cartel burns coffee in order to increase its price, the waste comes from the fact that there has been an excessive production of coffee and not from the fact it is burnt (since coffee has no other value than the one it gets from its relative scarcity in comparison with other goods). In some sense the restrictive action is not specific to a cartel, since on any free market one always restricts the production of a good in order to produce another one. According to Murray Rothbard: "The cartel's action, in reducing the production of coffee and causing an increase in the production of rubber, jungle guiding, etc., led to an increase in the power of the productive resources to satisfy consumer desires,"[6] and "A cartel action, if it is a voluntary one, cannot injure freedom of competition and, if it proves profitable, benefits rather than injures the consumers."[7] Thus, either the cartel results from the free working of the market and its possible restrictive actions are *wanted* by consumers, or it is the consequence of a barrier to entry and the restrictive action is a pure monopoly—i.e., state created—exploitation of purchasers.

However, Murray Rothbard seems to limit justification for cartels to the case of voluntary and beneficial restrictions of production, although he does not exclude the possibility of other cartel actions when he writes:

> To regard a cartel as immoral or as hampering some sort of consumer's sovereignty is therefore completely unwarranted. And this is true even in the seemingly "worst" case of a cartel that we may assume is founded *solely* for "restrictive" purposes, and where, as a result of previous error and the perishability of product, actual destruction will occur.[8]

However, the very notion of a “restrictive action” is by itself debatable, inasmuch as such an action can be labeled as restrictive only in comparison with a norm which could undoubtedly be named non-restrictive. Let us take the example of coffee producers burning coffee in order to increase its price and obtain a maximum profit. A cooperative action is necessary in order to avoid free-riding. However, instead of burning coffee after it has been produced, producers could have decided on a cooperative action before producing it in order to avoid overproduction. They did not do it just because they lacked the necessary information on the future state of the market. Therefore, burning coffee is a restrictive action only in comparison with a specific state of affairs which had been freely chosen by producers in a situation of imperfect information.[9] Therefore, it would be preferable to avoid using the normative word of “restriction” and to just assume that the cartel aims at profit maximization.

Now, if there is free entry on the market, it is wrong to say that this profit maximization corresponds to a super-profit. As is the notion of a restrictive action, the notion of a super-profit is meaningless, since it implies a comparison with a completely non-existing norm, namely the rate of profit obtained in a situation of pure or perfect competition.

The mere definition of a cartel does not imply anything about the degree of freedom of entry on the market. The theory of monopoly has no scope as long as the reasons for the existence of one single producer are not made precise (e.g., barriers to entry, economies of scale or innovation). Similarly, the theory of cartels is meaningless without a clear understanding of the reasons for the existence of such a market structure. As we have seen, the possibility to introduce a restrictive action on a market is not an acceptable explanation and we have to consider other justifications for cartels.

If there is not a single producer but a couple of producers in a given market, it means for instance that there is no additional gain to be obtained from shifting from several producers to one single producer (the optimal size of firms has been obtained with several firms and there is no marginal economy of scale). To most theorists, cartels appear as unstable market structures, because they can find explanations for a situation with one monopolist or for a situation with a great number of producers, but not for any in-between situation. The cartel thus appears as a transitory solution to solve a specific problem. However, this

intermediate market structure can be perfectly stable and optimal.

The Cartel as a Value-Producing Organization

As we just stressed, contrary to the traditional theory, competition has the merit of inducing producers to differentiate their production one from the other and not to try to produce exactly the same good with the same technique. Now, if we define a cartel as a structure which allows different producers to coordinate their production in order to suppress any differentiation in their products, does it mean that cartels can be viewed as anticompetitive organizations, or that some other reason might explain the emergence of such a productive structure?

There is a very general and simple answer to this question: If competition prevails in the sense that there is free entry on a market and if a cartel has existed for long, it necessarily means that this structure is the best one to meet some specific demand of the market. In other words, a cartel is not necessarily unstable —as is obvious from practical experiences—and if it remains alive in spite of potential competition, it means that it is a useful structure in this specific case. In other words, competition usually leads to differentiation of products, i.e., imperfect substitution between them, whereas a cartel tends to induce homogenization, i.e., substitutability. The benefits of differentiation are so obvious that there must be serious reasons for limiting it and introducing a higher degree of substitutability between products.

In fact there are many specific activities in which there is a demand for homogeneity, especially in network activities, for instance telecommunications, transportation, or money production (which are frequently considered as public utilities and, even, natural monopolies). Generally speaking such situations can be named situations of “sub-additivity,”[10] which includes externalities, economies of scale and economies of scope. In such cases one can obtain gains from coordinating several producers or from substituting one unique producer for a number of them.

As an example, in the case of money production it can be considered that there are economies of scale and, therefore, decreasing marginal costs in the production of money, since, for instance, advertising costs on the characteristics of a currency

may be more or less fixed and the centralization of reserves allows savings of resources; there are economies of scope (since information obtained by a financial intermediary can be efficiently used to create money against credit); and, finally, there may be externalities, since, for instance, a currency is more useful for one person the more widely it is used by others. Even if one disagrees with the precise reasons for sub-additivity, anyone may accept the idea that it would not be *optimal* to have a very large number of different currencies.

Governments and all the *experts* who support them usually shift from such observations to the conclusion that there are natural monopolies, so that public monopolies or regulations are necessary in order to avoid the exploitation of demanders by producers. In fact, there is only one conclusion to be drawn from such observations, namely that there is a potential gain to be obtained from decreasing the degree of differentiation in the production of such goods. There are potential gains which can be obtained from substituting one or a limited number of goods for a great diversity. However, it does not mean that the optimal degree of diversification—or, conversely, the optimal degree of homogenization—can be decided *a priori* from a purely technical approach. Two remarks are important at this point:

> (1) If ever gains can be obtained by diminishing the degree of differentiation—for instance because of economies of scale—it does not imply that it is also optimal to diminish the number of producers. As an example, if it could be proven that it would be technically optimal to have one single money or one single computer standard in the world, it would not imply that there ought to be one single producer: Either a monopoly or a cartel can do the job. In fact, a cartel is a productive structure in which *different* producers produce the same good, so that they can be as efficient as a monopoly in meeting sub-additivity problems.
>
> (2) One cannot know in advance and forever whether there is sub-additivity in an activity. It has to be discovered. And, as is well-known, competition—i.e., free entry—is the best way to discover to which extent sub-additivity does exist and to which extent it may change over time. More specifically, it cannot be generally said that sub-

> additivity exists in such and such activity, as it may exist at one given time at one point of the production process, but not some particular over its entire range. For instance in a telecommunication or transportation network, it may not be efficient to have more than one major *highway* in some part of the network, whereas in other parts there would not be any economies of scale: the *highway* may be operated by one *monopolistic* producer or by several producers coordinated into a *cartel*, whereas the other parts could be managed by different, not coordinated, producers as well as by a cartel (for instance the one which is managing the *highway*). As new technologies are discovered, the place of the cartel may change over time.

Therefore, cartels exist not only, or even not mainly, in order to make resources scarcer and to increase prices, but to increase the value of production and improve the productive processes. The cartel is not created to extract what the traditional theory calls a "super-profit," but to produce coordination gains.

Cartels, as well as monopolies, are the possible outcome of competition, i.e., free entry on a market: Competition makes it possible for real entrepreneurs to innovate, so that they are the only suppliers of the new product they have decided to introduce to the market. As competition has the merit of inducing producers to be the first ones on a market—i.e., to be what traditional theory calls monopolists—it is meaningless to compare cartel situations to a situation with many producers. But it makes sense to compare cartels to monopolies. In fact, if ever there are gains to be obtained from homogenizing production, because of sub-additivity phenomena, is it not more efficient to have one single producer than several ones in a cartel?

In fact, in a cartel there are possible coordination costs which may be opposite to the coordination gains obtained through the homogenization of production. However the cartel may be organized along two different procedures, either spontaneous coordination or explicit cooperation. As an example of the first category, let us take the case of a free banking system and let us assume that, in a given area, several banks produce currencies which benefit from a convertibility guarantee in terms of gold. However, each bank discovers that, in order to make its own money more attractive, it has to increase its liquidity and,

therefore, it decides to accept the currencies issued by other banks of the system against its own without limit, at the fixed price given by their mutual gold prices. Such a system of spontaneous coordination makes all currencies perfectly substitutable, which means that the banks of the system have decided to eliminate any possible differentiation of their products. However, one may imagine that some degree of cooperation—i.e., explicit coordination of decisions—may take place, for instance to decide a common name for the *common* currency, but it is not absolutely necessary, since each bank can decide separately to use the name of a currency already issued by one of them. Thus, one cannot define a cartel by the existence of cooperation—or what is sometimes called collusion—but rather by the fact that there is homogenization of goods produced by different producers, whether it results from explicit, centralized decisions or from decentralized, individual decisions.

Coordination costs are certainly higher the more cooperation exists in the system, since it is necessary to monitor the explicit cartel agreement. In such a case, as we have already recalled, each participant in the cartel has an interest in others' honoring the agreement, and in trying to engage in free riding in order to. get a larger share of the common market. But coordination costs are almost non-existent whenever the cartel is the result of the spontaneous decisions of its members.

On one hand, a cartel may have some advantages in comparison with the case of a single producer (monopolist). The main gain stems from the fact that, although there is actual homogenization of production, the possibility of *future diversification* remains. As we have already stressed, the existence of coordination gains may change over time as new technologies are discovered. When a single good is produced by several producers in a cartel rather than by a single producer, there may be more incentives to discover new techniques. The traditional assertion according to which a cartel is necessarily unstable is not completely wrong, but it must not be considered as a negative aspect of the cartel, but rather as a positive one. It means that the cartel subsists as long as it is the most efficient productive organization. But that it may burst whenever other productive structures appear as more efficient. Moreover, the participants in the cartel are permanently induced to look for the possibility of inventing more efficient productive organizations, some of which includes the dissolving of the cartel or, maybe, the arrangement of a new form of cartel.

Another possible gain brought by the cartel is a scale gain. Contrary to what is usually assumed economies of scale do not generally exist. Moreover, whenever it can be assumed, that there are economies of scale, they have to be viewed as *technical* and not as *institutional* economies of scale.[11] But there are also diseconomies of scale, which are mainly of an institutional nature. It is well-known that the internal organization of a firm does not rely on explicit exchange procedures, so that the production of information may be more difficult. The larger the firm the larger may be the organization cost. Thus, by coordinating their production—or cooperating—in a cartel, different firms are able to produce a good at the optimal scale, from the technical point of view, and of minimizing institutional costs (diseconomies of scale).

The IATA (International Air Transport Association) gives an interesting example of an efficient, rather stable, but changing cartel. Through an agreement which is not very costly to manage, different firms are able to give more value to their services, since the tickets issued by different firms are (nearly perfectly) substitutable one for another, at least as regards regular tickets. However, airlines are allowed some degree of differentiation—for instance in the quality of service—and, on the other hand, they also produce services (e.g., special rates and charters) which do not enter the cartel agreement. Thus, the airline industry is characterized by an optimal degree of differentiation and homogenization from both the points of view of travelers and airlines. To some travelers, the substitutability between airline tickets is very valuable, for some other ones the priority consists in getting the lowest possible prices. Thus, the airline industry meets the different needs of customers.

The traditional theory of competition, as well as the traditional theory of the natural monopoly, have a global view of what they call a *good*. It is considered, for example, that there is something such as *air transportation* or *telecommunications*. Moreover it is assumed that sub-additivity exists in such network activities, so that there is the possibility of a natural monopoly. In fact, as it has been made clear by the *new* theory of consumption,[12] people do not demand *goods*, but characteristics and physically distinct goods are supplying bundles of characteristics, in various proportions. The problem of production is to adjust to the immense variety of characteristics desired by different individuals. Now, homogeneity may be one valuable—and, therefore, demanded—characteristic, as is the

case for money or air transportation. Therefore, to be efficient a productive structure has to produce baskets of characteristics which are viewed as optimal by demanders, which implies that some baskets may include homogenized goods and some others differentiated ones. The cartel—which is a mix of differentiation and homogenization—contributes to this adjustment. From this point of view it is an essential feature of productive structures. Contrary to the usual view according to which cartels are fundamentally unstable and, therefore, transitory, and contrary, even, to the view of Murray Rothbard who also considered cartels as somewhat transitory organizations, cartels have a durable, although changing, role to play.

The Cartel as an Intermediate Productive Structure

Thus, the cartel plays an important role in allowing an optimal combination of diversification and homogenization in production, according to the needs of demanders; and in providing an optimal combination of coordination and cooperation. From this latter point of view, it plays an interesting and intermediate role in productive structures.

Murray Rothbard considers that a cartel aims at organizing a "*cooperation* to increase the incomes of the producers" and he adds: "For what is the essence of a cartel action? Individual producers agree to pool their assets into a common lot, this single central organization agrees to make the decisions on production and price policies for all the owners and then to allocate the monetary gains among them. *But is this process not the same as any sort of joint partnership or the formation of a single corporation*?"[13] Comparing the creation of a cartel to that of a centralized firm, he concludes, "*there is therefore no essential difference between a cartel and an ordinary corporation or partnership*." However, as we already stressed, if ever a cartel and a big firm are exactly the same, why would cartels exist? Seeing no basic difference between them, Rothbard assumes that cartels are mainly transitory structures, contrary to what can be shown by reasoning or experience.[14] In fact, his conclusions are dependent on his definition of the cartel. Viewing the cartel as an explicit cooperation of firms in order to increase the joint profit —according to the traditional definition of a cartel—he assumes that the most efficient firms will be tempted to break the cartel in order to increase their market shares. In fact, as we have seen, a cartel cannot be defined by a strategy of market sharing,

although it does exist, but by a coordinated—not necessarily cooperative—effort to homogenize production (which may imply identical prices). If this homogenization is desired by the market, the cartel is efficient and it will last. If it does not meet any specific need of the demanders, but is only the end result of an effort by producers to maximize joint profits, it may fail more or less rapidly.

As a consequence of his restrictive definition of a cartel, Murray Rothbard thinks that either the cartel is efficient and a merger will rapidly take place between its members, or it is not, and it will break down. As he wrote, "if joint action is the most efficient and profitable course for each member, a merger will soon take place."[15] In reality efficient cartels can and must last, possibly by transforming their structure and activities or the number of their participants. The best example may be that of money production. Under free banking the production of money by members of cartels was efficiently made without any destruction of the cartel or any merger into one single big producer. In fact, if there are no unlimited economies of scale, there is no reason for a merger.

Mergers do not occur precisely because in a cartel firms are independent profit centers, which makes economic calculation more efficient. Instead of viewing a cartel as a set of firms which are about to merge, it may be both more realistic and more efficient to consider it as the ultimate stage of a process by which a big firm has been decentralized into various coordinated *decision centers* and, ultimately, split into independent *profit centers* with different owners.

As is well-known in his seminal work on the modern theory of the firm, Ronald Coase[16] gave an answer to the following question: If, as it is rightly assumed, the market is an efficient way for individuals to organize their mutual exchanges, why substitute other procedures, for instance the cooperative and command procedures which are used inside a firm? The market makes it possible to *coordinate* relations between individuals through voluntary exchange, whereas individual actions are made compatible inside a firm (or any other organization) through *cooperation*, i.e., a complex mix of spontaneous and constrained (command) actions.

Therefore, it is now widely admitted that an optimal organization of production stems from the juxtaposition of two non-excluding schemes, cooperation and coordination. The market is a *coordination* process between voluntary actors and

the firm—as well as any other organization—is a *cooperative* system in which the productive process is based not on spontaneous interactions between individuals through contracts but through more vague processes of cooperation (for instance through command, although in any firm there is a mix of command, voluntary decisions and initiatives, coordination through information processes, etc.). Now, there is a sort of frontier between the market process and the organizational process of firms. It can be assumed that the larger a firm is the more difficult is the internal organization process. However, the firm may gain from either the possibility of developing economies of scale or—according to the traditional theory—exploiting a monopoly position and a super-profit. From these conflicting tendencies, an optimal size of the firm results under specific conditions.

Instead of this one-or-the-other approach, a cartel makes it possible to better combine these conflicting tendencies via a better use of both cooperative solutions (internal organization) and coordination processes (market). This is the reason why there is a great variety of cartels combining, in different ways, coordination and cooperation procedures. This is also the reason why cartels are not necessarily unstable. They are part of a firm's strategies: If ever a firm considers any change in its production, it does not have to choose only between extending the internal process of cooperation or entering into voluntary exchange on the market. It may be preferable to combine cooperation and coordination under the form of a cartel.[17] The micro-computer industry gives an interesting example of such strategies. According to the evolution of markets, strategies, and technologies, producers decide their standards independently or enter into cooperative agreements which can be considered as cartel arrangements.

From this point of view it is preferable to abandon the definition of a cartel as an agreement between firms which *intends* to exert a restrictive action or any sort of specific action. The actual intention of participants is not relevant. Any action results from an intention, but the content of the intention does not matter from the market point of view. It may be that an entrepreneur enters into an agreement with some specific intention, but the outcome of the agreement is not the one intended, but another one which appears as beneficial, so that the agreement will be maintained. What is important in a cartel is that some mix of coordination-cooperation efficiently blurs the

frontier between organizational processes and market processes.

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[1] Particularly in *Man, Economy, and State*, 3rd ed. (Auburn, Ala.: Ludwig von Mises Institute, 1993). In the present paper we rely mainly on this book, from which we extracted all quotations for which pages are given without any further indication.

[2] The definition of a market is arbitrary, since it implies the possibility to differentiate perfectly specific goods. This would be possible without any ambiguity only if goods were perfectly not substitutable one to the other. As far as some substitutability exists—which is always the case—the definition of a good and of a market is arbitrary.

[3] Anyhow, those who support such views do not usually consider the possibility of competition from producers located in other nations and are ready to support protectionist measures.

[4] We have developed this view in a short book, *La concurrence*, in the *Que sais-je?* collection (Paris: Presses Universitaires de France, 1995).

[5] Murray Rothbard, *Man, Economy, and State*, p. 565.

[6] Ibid., p. 569.

[7] Ibid., p. 584.

[8] Ibid., p. 570.

[9] Moreover, in such a case, the cartel is only a transitory market structure to cope with the unexpected consequences of non-cooperative behaviors. Now, in principle, the market is a coordination process which makes cooperation unnecessary.

[10] This term seems to have been used first by the economists of Bell Co. It is used, for instance, in W. Baumol, J. Panzar, J. C. Willig, *Contestable Markets and the Theory of Industry Structure* (New York: Harcourt, Brace, Jovanovich, 1982).

[11] As Murray Rothbard rightly wrote, “The critical problem is not the size of the plant, but the size of the firm” (*Man, Economy, and State*, p. 577) and “Economics can make few valid statements about the optimal size of a firm except that the free market will come as close as possible to rendering maximum service to consumers, whether we are considering the size of a firm or any other aspect of production” (Ibid., p. 578).

[12] K. T. Lancaster, “A New Approach to Consumer Theory,” *Journal of Political Economy* (April 1966); reprinted in *Modern Consumer Theory* (Brookfield, Vt. and Aldershot, England: Edward Elgar, 1991).

[13] Rothbard, *Man, Economy, and State*, p. 572; emphasis in the original.

[14] “In many cases, a cartel can be considered as simply a tentative step in the direction of permanent merger,” ibid., p. 573.

[15] Ibid., p. 579.

[16] Ronald H. Coase, “The Nature of the Firm,” *Economica* (1932).

[17] Franchising in retail trade is a well-known example of such strategies.

The Myth of Natural Monopoly

Thomas J. DiLorenzo

> The very term "public utility". . . is an absurd one. *Every* good is useful "to the public," and almost every good . . . may be considered "necessary." Any designation of a few industries as "public utilities" is completely arbitrary and unjustified.
>
> —Murray Rothbard, *Power and Market*

Most so-called public utilities have been granted governmental franchise monopolies because they are thought to be "natural monopolies." Put simply, a natural monopoly is said to occur when production technology, such as relatively high fixed costs, causes long-run average total costs to decline as output expands. In such industries, the theory goes, a single producer will eventually be able to produce at a lower cost than any two other producers, thereby creating a "natural" monopoly. Higher prices will result if more than one producer supplies the market.

Furthermore, competition is said to cause consumer inconvenience because of the construction of duplicative facilities, e.g., digging up the streets to put in dual gas or water lines. Avoiding such inconveniences is another reason offered for government franchise monopolies for industries with declining long-run average total costs.

It is a myth that natural monopoly theory was developed first by economists, and then used by legislators to "justify" franchise monopolies. The truth is that the monopolies were created decades before the theory was formalized by intervention-minded economists, who then used the theory as an *ex post* rationale for government intervention. At the time when the first government franchise monopolies were being granted, the large majority of economists understood that large-scale, capital intensive production did *not* lead to monopoly, but was an absolutely desirable aspect of the competitive process.

The word "process" is important here. If competition is viewed as a dynamic, rivalrous process of entrepreneurship, then

the fact that a single producer happens to have the lowest costs *at any one point in time* is of little or no consequence. The enduring forces of competition—including potential competition—will render free-market monopoly an impossibility.

The theory of natural monopoly is also a-historical. There is no evidence of the "natural monopoly" story ever having been carried out—of one producer achieving lower long-run average total costs than everyone else in the industry and thereby establishing a permanent monopoly. As discussed below, in many of the so-called public utility industries of the late eighteenth and early nineteenth centuries, there were often literally dozens of competitors.

Economies of Scale During the Franchise Monopoly Era

During the late nineteenth century, when local governments were beginning to grant franchise monopolies, the general economic understanding was that "monopoly" was caused by government intervention, not the free market, through franchises, protectionism, and other means. Large-scale production and economies of scale were seen as a competitive virtue, not a monopolistic vice. For example, Richard T. Ely, co-founder of the American Economic Association, wrote that "large scale production is a thing which by no means necessarily signifies monopolized production."[1] John Bates Clark, Ely's co-founder, wrote in 1888 that the notion that industrial combinations would "destroy competition" should "not be too hastily accepted."[2]

Herbert Davenport of the University of Chicago advised in 1919 that only a few firms in an industry where there are economies of scale does not "require the elimination of competition,"[3] and his colleague, James Laughlin, noted that even when "a combination is large, a rival combination may give the most spirited competition."[4] Irving Fisher[5] and Edwin R.A. Seligman[6] both agreed that large-scale production produced *competitive* benefits through cost savings in advertising, selling, and less cross-shipping.

Large-scale production units unequivocally benefited the consumer, according to turn-of-the-century economists. For without large-scale production, according to Seligman, "the world would revert to a more primitive state of well being, and would virtually renounce the inestimable benefits of the best

utilization of capital."[7] Simon Patten of the Wharton School expressed a similar view that "the combination of capital does not cause any economic disadvantage to the community. . . . combinations are much more efficient than were the small producers whom they displaced."[8]

Like virtually every other economist of the day, Columbia's Franklin Giddings viewed competition much like the modern-day Austrian economists do, as a dynamic, rivalrous process. Consequently, he observed that "competition in some form is a permanent economic process. . . . Therefore, when market competition seems to have been suppressed, we should inquire what has become of the forces by which it was generated. We should inquire, further, to what degree market competition actually is suppressed or converted into other forms."[9] In other words, a "dominant" firm that underprices all its rivals at any one point in time has not suppressed competition, for competition is "a permanent economic process."

David A. Wells, one of the most popular economic writers of the late nineteenth century, wrote that "the world demands abundance of commodities, and demands them cheaply; and experience shows that it can have them only by the employment of great capital upon extensive scale."[10] And George Gunton believed that "concentration of capital does not drive small capitalists out of business, but simply integrates them into larger and more complex systems of production, in which they are enabled to produce . . . more cheaply for the community and obtain a larger income for themselves. . . . Instead of concentration of capital tending to destroy competition the reverse is true. . . . By the use of large capital, improved machinery and better facilities the trust can and does undersell the corporation."[11]

The above quotations are not a selected, but rather a comprehensive list. It may seem odd by today's standards, but as A.W. Coats pointed out, by the late 1880s there were only ten men who had attained full-time professional status as economists in the U.S.[12] Thus, the above quotations cover virtually every professional economist who had anything to say about the relationship between economies of scale and competitiveness at the turn of the century.

The significance of these views is that these men observed first-hand the advent of large-scale production and did not see it leading to monopoly, "natural" or otherwise. In the spirit of the Austrian School, they understood that competition was an

ongoing process, and that market dominance was always necessarily temporary in the absence of monopoly-creating government regulation. This view is also consistent with my own research findings that the "trusts" of the late nineteenth century were in fact dropping their prices and expanding output faster than the rest of the economy—they were the most dynamic and competitive of all industries, not monopolists.[13] Perhaps this is why they were targeted by protectionist legislators and subjected to "antitrust" laws.

The economics profession came to embrace the theory of natural monopoly after the 1920s, when it became infatuated with "scientism" and adopted a more or less engineering theory of competition that categorized industries in terms of constant, decreasing, and increasing returns to scale (declining average total costs). According to this way of thinking, engineering relationships determined market structure and, consequently, competitiveness. The meaning of competition was no longer viewed as a behavioral phenomenon, but an engineering relationship. With the exception of such economists as Joseph Schumpeter, Ludwig von Mises, Friedrich Hayek, and other members of the Austrian School, the ongoing *process* of competitive rivalry and entrepreneurship was largely ignored.

How "Natural" Were the Early Natural Monopolies?

There is no evidence at all that at the outset of public utility regulation there existed any such phenomenon as a "natural monopoly." As Harold Demsetz has pointed out:

> Six electric light companies were organized in the one year of 1887 in New York City. Forty-five electric light enterprises had the legal right to operate in Chicago in 1907. Prior to 1895, Duluth, Minnesota, was served by five electric lighting companies, and Scranton, Pennsylvania, had four in 1906. . . . During the latter part of the nineteenth century, competition was the usual situation in the gas industry in this country. Before 1884, six competing companies were operating in New York City . . . competition was common and especially persistent in the telephone industry . . . Baltimore, Chicago, Cleveland, Columbus, Detroit, Kansas City, Minneapolis, Philadelphia, Pittsburgh, and St. Louis,

among the larger cities, had at least two telephone services in 1905.[14]

In an extreme understatement, Demsetz concludes that "one begins to doubt that scale economies characterized the utility industry at the time when regulation replaced market competition."[15]

A most instructive example of the non-existence of natural monopoly in the utility industries is provided in a 1936 book by economist George T. Brown entitled "The Gas Light Company of Baltimore," which bears the misleading subtitle, "A Study of Natural Monopoly."[16] The book presents "the study of the evolutionary character of utilities" in general, with special emphasis on the Gas Light Company of Baltimore, the problems of which "are not peculiar either to the Baltimore company or the State of Maryland, but are typical of those met everywhere in the public utility industry."[17]

The history of the Gas Light Company of Baltimore figures prominently in the whole history of natural monopoly, in theory and in practice, for the influential Richard T. Ely, who was a professor of economics at Johns Hopkins University in Baltimore, chronicled the company's problems in a series of articles in the *Baltimore Sun* that were later published as a widely-sold book. Much of Ely's analysis came to be the accepted economic dogma with regard to the theory of natural monopoly.

The history of the Gas Light Company of Baltimore is that, from its founding in 1816, it constantly struggled with new competitors. Its response was not only to try to compete in the marketplace, but also to lobby the state and local government authorities to refrain from granting corporate charters to its competitors. The company operated with economies of scale, but that did not prevent numerous competitors from cropping up.

"Competition is the life of business," the *Baltimore Sun* editorialized in 1851 as it welcomed news of new competitors in the gas light business.[18] The Gas Light Company of Baltimore, however, "objected to the granting of franchise rights to the new company."[19]

Brown states that "gas companies in other cities were exposed to ruinous competition," and then catalogues how those same companies sought desperately to enter the Baltimore market. But if such competition was so "ruinous," why would these companies enter new—and presumably just as "ruinous"—markets? Either Brown's theory of "ruinous competition"—which

soon came to be the generally accepted one—was incorrect, or those companies were irrational gluttons for financial punishment.

By ignoring the *dynamic* nature of the competitive process, Brown made the same mistake that many other economists still make: believing that "excessive" competition can be "destructive" if low-cost producers drive their less efficient rivals from the market.[20] Such competition may be "destructive" to high-cost competitors, but it is beneficial to consumers.

In 1880 there were three competing gas companies in Baltimore who fiercely competed with one another. They tried to merge and operate as a monopolist in 1888, but a new competitor foiled their plans: "Thomas Alva Edison introduced the electric light which threatened the existence of all gas companies."[21] From that point on there was competition between both gas and electric companies, all of which incurred heavy fixed costs which led to economies of scale. Nevertheless, no free-market or "natural" monopoly ever materialized.

When monopoly did appear, it was solely because of government intervention. For example, in 1890 a bill was introduced into the Maryland legislature which "called for an annual payment to the city from the Consolidated [Gas Company] of $10,000 a year and 3 percent of all dividends declared in return for the privilege of enjoying a 25-year monopoly."[22] This is the now-familiar approach of government officials colluding with industry executives to establish a monopoly that will gouge the consumers, and then sharing the loot with the politicians in the form of franchise fees and taxes on monopoly revenues. This approach is especially pervasive today in the cable TV industry.

Legislative "regulation" of gas and electric companies produced the predictable result of monopoly prices, which the public complained bitterly about. Rather than deregulating the industry and letting competition control prices, however, public utility regulation was adopted to supposedly appease the consumers who, according to Brown, "felt that the negligent manner in which their interests were being served [by legislative control of gas and electric prices] resulted in high rates and monopoly privileges. *The development of utility regulation in Maryland typified the experience of other states*."[23]

Not all economists were fooled by the "natural monopoly" theory advocated by utility industry monopolists and their paid economic advisers. In 1940 economist Horace M. Gray, an

assistant dean of the graduate school at the University of Illinois, surveyed the history of "the public utility concept," including the theory of "natural" monopoly. "During the nineteenth century," Gray observed, it was widely believed that "the public interest would be best promoted by grants of special privilege to private persons and to corporations" in many industries.[24] This included patents, subsidies, tariffs, land grants to the railroads, and monopoly franchises for "public" utilities. "The final result was monopoly, exploitation, and political corruption."[25] With regard to "public" utilities, Gray records that "between 1907 and 1938, the policy of state-created, state-protected monopoly became firmly established over a significant portion of the economy and became the keystone of modern public utility regulation."[26] From that time on, "the public utility status was to be the haven of refuge for all aspiring monopolists who found it too difficult, too costly, or too precarious to secure and maintain monopoly by private action alone."[27]

In support of this contention, Gray pointed out how virtually every aspiring monopolist in the country tried to be designated a "public utility," including the radio, real estate, milk, air transport, coal, oil, and agricultural industries, to name but a few. Along these same lines, "the whole NRA experiment may be regarded as an effort by big business to secure legal sanction for its monopolistic practices."[28] Those lucky industries that were able to be politically designated as "public utilities" also used the public utility concept to keep out the competition.

The role of economists in this scheme was to construct what Gray called a "confused rationalization" for "the sinister forces of private privilege and monopoly," i.e., the theory of "natural" monopoly. "The protection of consumers faded into the background."[29]

More recent economic research supports Gray's analysis. In one of the first statistical studies of the effects of rate regulation in the electric utilities industry, published in 1962, George Stigler and Claire Friedland found no significant differences in prices and profits of utilities with and without regulatory commissions from 1917 to 1932.[30] Early rate regulators *did not* benefit the consumer, but were rather "captured" by the industry, as happened in so many other industries, from trucking to airlines to cable television. It is noteworthy—but not very laudable—that it took economists almost 50 years to begin studying the actual, as opposed to the theoretical, effects of rate regulation.

Sixteen years after the Stigler-Friedland study, Gregg Jarrell observed that 25 states substituted state for municipal regulation of electric power ratemaking between 1912 and 1917, the effects of which were to *raise* prices by 46 percent and profits by 38 percent, while reducing the level of output by 23 percent.[31] Thus, municipal regulation failed to hold prices down. But the utilities wanted an even more rapid increase in their prices, so they successfully lobbied for state regulation under the theory that state regulators would be less pressured by local customer groups, than mayors and city councils would be.

These research results are consistent with Horace Gray's earlier interpretation of public utility rate regulation as an anti-consumer, monopolistic, price-fixing scheme.

The Problem of "Excessive Duplication"

In addition to the economies of scale canard, another reason that has been given for granting monopoly franchises to "natural monopolies" is that allowing too many competitors is too disruptive. It is too costly to a community, the argument goes, to allow several different water suppliers, electric power producers, or cable TV operators to dig up the streets. But as Harold Demsetz has observed:

> [T]he problem of excessive duplication of distribution systems is attributable to the failure of communities to set a proper price on the use of these scarce resources. The right to use publicly owned thoroughfares is the right to use a scarce resource. The absence of a price for the use of these resources, a price high enough to reflect the opportunity costs of such alternative uses as the servicing of uninterrupted traffic and unmarred views, will lead to their overutilization. The setting of an appropriate fee for the use of these resources would reduce the degree of duplication to optimal levels.[32]

Thus, just as the problem with "natural" monopolies is actually caused by government intervention, so is the "duplication of facilities" problem. It is created by the failure of governments to put a price on scarce urban resources. More precisely, the problem is really caused by the fact that governments own the streets under which utility lines are placed,

and that the impossibility of rational economic calculation within socialistic institutions precludes them from pricing these resources appropriately, as they would under a private-property competitive-market regime. Contrary to Demsetz's claim, rational economic pricing in this case is impossible precisely because of government ownership of roads and streets. Benevolent and enlightened politicians, even ones who have studied at the feet of Harold Demsetz, would have no rational way of determining what prices to charge. Murray Rothbard explained all this more than 25 years ago:

> The fact that the government must give permission for the use of its streets has been cited to justify stringent government regulations of 'public utilities,' many of which (like water or electric companies) must make use of the streets. The regulations are then treated as a voluntary *quid pro quo*. But to do so overlooks the fact that governmental ownership of the streets is itself a permanent act of intervention. Regulation of public utilities or of any other industry discourages investment in these industries, thereby depriving consumers of the best satisfaction of their wants. For it distorts the resource allocations of the free market.[33]

The so-called "limited-space monopoly" argument for franchise monopolies, Rothbard further argued, is a red herring, for how many firms will be profitable in any line of production "is an institutional question and depends on such concrete data as the degree of consumer demand, the type of product sold, the physical productivity of the processes, the supply and pricing of factors, the forecasting of entrepreneurs, etc. Spatial limitations may be unimportant."[34]

In fact, even if spatial limitations do allow only one firm to operate in a particular geographical market, that does not necessitate monopoly, for "monopoly" is "a meaningless appellation, unless monopoly price is achieved," and "*All* prices on a free market are competitive."[35] Only government intervention can generate monopolistic prices.

The only way to achieve a free-market price that reflects true opportunity costs and leads to optimal levels of "duplication" is through free exchange in a genuinely free market, a sheer impossibility without private property and free

markets.[36] Political fiat is simply not a feasible substitute for the prices that are determined by the free market because rational economic calculation is impossible without markets.

Under private ownership of streets and sidewalks, individual owners are offered a tradeoff of lower utility prices for the temporary inconvenience of having a utility company run a trench through their property. If "duplication" occurs under such a system, it is because freely-choosing individuals value the extra service or lower prices or both more highly than the cost imposed on them by the inconvenience of a temporary construction project on their property. Free markets necessitate neither monopoly nor "excessive duplication" in any economically meaningful sense.

Competition for the Field

The existence of economies of scale in water, gas, electricity, or other "public utilities" in no way necessitates either monopoly or monopoly pricing. As Edwin Chadwick wrote in 1859, a system of competitive bidding for the services of private utility franchises can eliminate monopoly pricing as long as there is competition "for the field."[37] As long as there is vigorous bidding for the franchise, the results can be both avoidance of duplication of facilities and competitive pricing of the product or service. That is, bidding for the franchise can take place in the form of awarding the franchise to the utility that offers consumers the lowest price for some constant-quality of service (as opposed to the highest price for the franchise).

Harold Demsetz revived interest in the concept of "competition for the field" in a 1968 article.[38] The theory of natural monopoly, Demsetz pointed out, fails to "reveal the logical steps that carry it from scale economies in production to monopoly price in the market place."[39] If one bidder can do the job at less cost than two or more, "then the bidder with the lowest bid price for the entire job will be awarded the contract, whether the good be cement, electricity, stamp vending machines, or whatever, but the lowest bid price need not be a monopoly price. . . . The natural monopoly theory provides no logical basis for monopoly prices."[40]

There is no reason to believe that the bidding process will not be competitive. Hanke and Walters have shown that such a franchise bidding process operates very efficiently in the French water supply industry.[41]

The Natural Monopoly Myth: Electric Utilities

According to natural monopoly theory, competition cannot persist in the electric utility industry. But the theory is contradicted by the fact that competition has in fact persisted for decades in dozens of U.S. cities. Economist Walter J. Primeaux has studied electric utility competition for more than 20 years. In his 1986 book, *Direct Utility Competition: The Natural Monopoly Myth*, he concludes that in those cities where there is direct competition in the electric utility industries:

- Direct rivalry between two competing firms has existed for very long periods of time—for over 80 years in some cities;
- The rival electric utilities compete vigorously through prices and services;
- Customers have gained substantial benefits from the competition, compared to cities where there are electric utility monopolies;
- Contrary to natural monopoly theory, costs are actually lower where there are two firms operating;
- Contrary to natural monopoly theory, there is no more excess capacity under competition than under monopoly in the electric utility industry;
- The theory of natural monopoly fails on every count: competition exists, price wars are not "serious," there is better consumer service and lower prices with competition, competition persists for very long periods of time, and consumers themselves prefer competition to regulated monopoly; and
- Any consumer satisfaction problems caused by dual power lines are considered by consumers to be less significant than the benefits from competition.[42]

Primeaux also found that although electric utility executives generally recognized the consumer benefits of competition, they personally preferred monopoly!

Ten years after the publication of Primeaux's book, at least one state—California—is transforming its electric utility industry "from a monopoly controlled by a handful of publicly held utilities to an open market."[43] Other states are moving in the same direction, finally abandoning the baseless theory of natural monopoly in favor of natural competition:[44]

- The Ormet Corporation, an aluminum smelter in West Virginia,

obtained state permission to solicit competitive bids from 40 electric utilities;

- Alcan Aluminum Corp. in Oswego, New York has taken advantage of technological breakthroughs that allowed it to build a new power generating plant next to its mill, cutting its power costs by two thirds. Niagara Mohawk, its previous (and higher priced) power supplier, is suing the state to prohibit Alcan from using its own power;
- Arizona political authorities allowed Cargill, Inc. to buy power from anywhere in the West; the company expects to save $8 million per year;
- New federal laws permit utilities to import lower-priced power, using the power lines of other companies to transport it;
- Wisconsin Public Service commissioner Scott Neitzel recently declared, "free markets are the best mechanism for delivering to the consumer . . . the best service at the lowest cost";
- The prospect of future competition is already forcing some electric utility monopolies to cut their costs and prices. When the TVA was faced with competition from Duke Power in 1988, it managed to hold its rates steady without an increase for the next several years.

The potential benefits to the U.S. economy from demonopolization of the electric utility industry are enormous. Competition will *initially* save consumers at least $40 billion per year, according to utility economist Robert Michaels.[45] It will also spawn the development of new technologies that will be economical to develop because of lower energy costs. For example, "automakers and other metal benders would make much more intensive use of laser cutting tools and laser welding machines, both of which are electron guzzlers."[46]

The Natural Monopoly Myth: Cable TV

Cable television is also a franchise monopoly in most cities because of the theory of natural monopoly. But the monopoly in this industry is anything but "natural." Like electricity, there are dozens of cities in the U.S. where there are competing cable firms. "Direct competition . . . currently occurs in at least three dozen jurisdictions nationally."[47] The existence of long-standing competition in the cable industry gives the lie to the notion that that industry is a "natural monopoly" and is therefore

in need of franchise monopoly regulation. The cause of monopoly in cable TV is government regulation, not economies of scale. Although cable operators complain of "duplication," it is important to keep in mind that "while overbuilding an existing cable system can lower the profitability of the incumbent operator, it unambiguously improves the position of consumers who face prices determined not by historical costs, but by the interplay of supply and demand."[48]

Also like the case of electric power, researchers have found that in those cities where there are competing cable companies prices are about 23 percent below those of monopolistic cable operators.[49] Cablevision of Central Florida, for example, reduced its basic prices from $12.95 to $6.50 per month in "duopoly" areas in order to compete. When Telestat entered Riviera Beach, Florida, it offered 26 channels of basic service for $5.75, compared to Comcast's 12-channel offering for $8.40 per month. Comcast responded by upgrading its service and dropping its prices.[50] In Presque Isle, Maine, when the city government invited competition, the incumbent firm quickly upgraded its service from only 12 to 54 channels.[51]

In 1987 the Pacific West Cable Company sued the city of Sacramento, California on First Amendment grounds for blocking its entry into the cable market. A jury found that "the Sacramento cable market was not a natural monopoly and that the claim of natural monopoly was a sham used by defendants as a pretext for granting a single cable television franchise . . . to promote the making of cash payments and provision of 'in-kind' services . . . and to obtain increased campaign contributions."[52] The city was forced to adopt a competitive cable policy, the result of which was that the incumbent cable operator, Scripps Howard, dropped its monthly price from $14.50 to $10 to meet a competitor's price. The company also offered free installation and three months free service in every area where it had competition.

Still, the big majority of cable systems in the U.S. are franchise monopolies for precisely the reasons stated by the Sacramento jury: they are mercantilistic schemes whereby a monopoly is created to the benefit of cable companies, who share the loot with the politicians through campaign contributions, free air time on "community service programming," contributions to local foundations favored by the politicians, stock equity and consulting contracts to the politically well connected, and various gifts to the franchise authorities.

In some cities, politicians collect these indirect bribes for five to ten years or longer from multiple companies before finally granting a franchise. They then benefit from part of the monopoly rents earned by the monopoly franchisee. As former FCC chief economist Thomas Hazlett, who is perhaps the nation's foremost authority on the economics of the cable TV industry, has concluded, "we may characterize the franchising process as nakedly inefficient from a welfare perspective, although it does produce benefits for municipal franchisers."[53] The barrier to entry in the cable TV industry is not economies of scale, but the political price-fixing conspiracy that exists between local politicians and cable operators.

The Natural Monopoly Myth: Telephone Service

The biggest myth of all in this regard is the notion that telephone service is a natural monopoly. Economists have taught generations of students that telephone service is a "classic" example of market failure and that government regulation in the "public interest" was necessary. But as Adam D. Thierer recently proved, there is nothing at all "natural" about the telephone monopoly enjoyed by AT&T for so many decades; it was purely a creation of government intervention.[54]

Once AT&T's initial patents expired in 1893, dozens of competitors sprung up. "By the end of 1894 over 80 new independent competitors had already grabbed 5 percent of total market share . . . after the turn of the century, over 3,000 competitors existed."[55] In some states there were over 200 telephone companies operating simultaneously. By 1907, AT&T's competitors had captured 51 percent of the telephone market and prices were being driven sharply down by the competition. Moreover, there was no evidence of economies of scale, and entry barriers were obviously almost nonexistent, contrary to the standard account of the theory of natural monopoly as applied to the telephone industry.[56]

The eventual creation of the telephone monopoly was the result of a conspiracy between AT&T and politicians who wanted to offer "universal telephone service" as a pork-barrel entitlement to their constituents. Politicians began denouncing competition as "duplicative," "destructive," and "wasteful," and various economists were paid to attend congressional hearings in which they somberly declared telephony a natural monopoly. "There is nothing to be gained by competition in the local

telephone business," one congressional hearing concluded.[57]

The crusade to *create* a monopolistic telephone industry by government fiat finally succeeded when the federal government used World War I as an excuse to nationalize the industry in 1918. AT&T still operated its phone system, but it was controlled by a government commission headed by the Postmaster General. Like so many other instances of government regulation, AT&T quickly "captured" the regulators and used the regulatory apparatus to eliminate its competitors. "By 1925 not only had virtually every state established strict rate regulation guidelines, but local telephone competition was either discouraged or explicitly prohibited within many of those jurisdictions."[58]

The complete demise of competition in the industry, Thierer concludes, was brought about by the following forces: exclusionary licensing policies; protected monopolies for "dominant carriers"; guaranteed revenues or regulated phone companies; the mandated government policy of "universal telephone entitlement" which called for a single provider to more easily carry out regulatory commands; and rate regulation designed to achieve the socialistic objective of "universal service."

That free-market competition was the source of the telephone monopoly in the early twentieth century is the biggest lie ever told by the economics profession. The free market never "failed"; it was government that failed to permit free-market competition as it concocted its corporatist scheme to the benefit of the phone companies, at the expense of consumers and potential competitors.

Conclusions

The theory of natural monopoly is an economic fiction. No such thing as a "natural" monopoly has ever existed. The history of the so-called public utility concept is that the late-nineteenth- and early-twentieth-century "utilities" competed vigorously and, like all other industries, they did not like competition. They first secured government-sanctioned monopolies, and *then*, with the help of a few influential economists, constructed an *ex post* rationalization for their monopoly power.

This has to be one of the greatest corporate public relations coups of all time. "By a soothing process of rationalization," wrote Horace M. Gray more than 50 years ago, "men are able to oppose monopolies in general but to approve certain types of

monopolies . . . Since these monopolies were 'natural' and since nature is beneficent, it followed that they were 'good' monopolies . . . Government was therefore justified in establishing 'good' monopolies."[59]

In industry after industry, the natural monopoly concept is finally eroding. Electric power, cable TV, telephone services, and the mail, are all on the verge of being deregulated, either legislatively or *de facto*, due to technological change. Introduced in the U.S. at about the same time communism was introduced to the former Soviet Union, franchise monopolies are about to become just as defunct. Like all monopolists, they will use every last resource to lobby to maintain their monopolistic privileges, but the potential gains to consumers of free markets are too great to justify them. The theory of natural monopoly is a nineteenth-century economic fiction that defends nineteenth-century (or eighteenth century, in the case of the U.S. Postal Service) monopolistic privileges, and has no useful place in the twenty-first-century American economy.

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New Light on the Prehistory of the Theory of Banking and the School of Salamanca

Jesús Huerta de Soto

As is known, Murray N. Rothbard was one of the theorists who defended with the most creativity and coherence the need for free banking subject to general legal principles, in other words, banking with a cash ratio of 100 percent of demand deposits. Likewise, he was one of the first theorists to stress the great influence which the theoretical contributions of the Spanish scholastics of the University of Salamanca in the sixteenth and seventeenth centuries were to have as the direct predecessors of the Austrian School of Economics.[1]

We feel that perhaps one of the greatest tributes which can be paid to Murray N. Rothbard is to show how the theorists of the School of Salamanca, whose intellectual activity took place from the reign of Carlos V in the sixteenth century onwards, developed an incipient theory on the legitimate practice of banking which coincides, to a great extent, with the contributions on this subject by the Austrian School in general and, particularly, by Murray N. Rothbard.

The analysis of banking during the reign of Carlos V is paradigmatic for several reasons. Firstly, because the massive inflow of precious metals from America caused the economic center of gravity to move, at least temporarily, from the mercantile cities in the north of Italy towards Spain, specifically Seville, and the other Spanish markets. Secondly, because Carlos V's constant need for cash, which was the result of his extravagant imperial policy, led him to continually finance his exploits through the banking system, taking advantage of the liquidity which it provided him without any scruples. The traditional complicity between bankers and governors which, although there was some degree of dissimulation, had already become a general rule was thus taken to its utmost limit by Carlos V. Moreover, he could not avoid the bankruptcy of the royal treasury which, logically, had pernicious consequences for the Spanish economy in general and, in particular, for the

bankers who had financed him. All these events led the sharpest minds of the era, the theorists of the School of Salamanca, to begin to reflect on financial and banking activities and, as a result, we have a series of enormously valuable theoretical analyses which should be studied in detail. We analyze each of these aspects below.

The Development of the Banks in Seville

Thanks to the work of Ramon Carande,[2] we know about the development of private banking in Seville during the reign of Carlos V in some detail. Carande explains that he was able to carry out his research as a result of the list of bankers drawn up in relation to the confiscation of precious metals by the *Casa de Contratación* (Trade House) of Seville in 1545. The unsatisfactory situation of the treasury meant that Carlos V, violating the most elementary legal principles, resorted to appropriating money from where it was most readily available: deposits in the safes of the bankers of Seville. It is true that these bankers, as we will see later, also violated legal principles in relation to the demand-deposit contract (i.e., deposit of fungible money) and used a large part of the deposits received for their own business. However, it is no less true that the inauspicious imperial policy, by transgressing the most elementary principles of property rights and directly confiscating the stocks of money kept in the vaults, merely provided an even bigger incentive for the bankers to invest the greater part of the deposits received in loans, which became a habitual practice: if, in the final analysis, there was no guarantee that the public authorities would respect the part of the cash reserve which was kept in the bank (and experience showed that, when times were difficult, the Emperor did not hesitate to confiscate this reserve and substitute it by compulsory loans to the Crown), it was preferable to devote the greater part of the deposits to loans to private industry and commerce, thus avoiding expropriation and obtaining a greater profitability.

In any case, this policy of confiscation is perhaps the most extreme manifestation of the public authorities' traditional policy of taking advantage of illegitimate banking profits by expropriating the assets of those who, by legal obligation, should best guard and preserve the deposits of third parties. It is understandable, therefore, that the governors, as the main beneficiaries of the bankers illegitimate activity, ended up justifying it and granting it all kinds of privileges so that it could

continue to act, with a fractional-cash ratio, outside the framework of general legal principles.

In his *magnum opus, Carlos V y sus Banqueros* ("Carlos V and his Bankers"), Ramón Carande lists the most important bankers in the Seville of Carlos V, specifically the Espinosas, Domingo de Lizarrazas and Pedro de Morga, together with other, less important, bankers, such as Cristóbal Francisquín, Diego Martínez, Juan Íñiguez and Octavio de Negrón. All of them inexorably became bankrupt, basically due to having insufficient liquidity to meet the withdrawal of demand deposits which had been placed with them. This shows that they worked with a fractional-cash ratio, thanks to the license or privilege which they had obtained from the Municipality of Seville and from Carlos V himself. We have no information on the percentage of reserves they held, but we do know that, on many occasions, they invested in their own shipping businesses (fleets which traded with America) and the collection of taxes which were a tremendous temptation because, if the conditions were favorable, the profits were very significant. Moreover, the successive confiscations of precious metals deposited with the bankers merely provided a greater incentive for their illegitimate behavior. Thus, the Espinosas went bankrupt in 1579 and the main partners were imprisoned. The bankruptcy of Domingo de Lizarrazas occurred on March 11, 1553, when he could not meet a payment of more than six and a half million maravedis. Pedro de Morga, who began operations in 1553, went bankrupt in 1575, during the second bankruptcy of King Felipe II. The rest of the less important bankers met the same fate and, in this respect, it is interesting to note the presence and comment of Thomas Gresham, who travelled to Seville with instructions to withdraw three hundred and twenty thousand ducats in cash, for which he had obtained the necessary license from the Emperor and from Queen Maria. Gresham was astounded to find that, in the city which received the treasures of the Indies, money was very scarce, as it was in the trade markets, and he feared that, upon withdrawal of the funds to which the orders he was bearing referred, all the banks of the city would suspend payments.[3] It is regrettable that Ramon Carande's theoretical analysis leaves so much to be desired and that his study interpreting the bankruptcy of these banks is based solely on anecdotal "explanations," such as "greed" for metals, which constantly placed the solvency of the bankers in a situation of crisis; the fact that the bankers carried out risky personal business deals, which

continually implied heavy obligations (the chartering of vessels, overseas maritime trade, insurance transactions, various speculative types of business, etc.); and the royal treasury's repeated confiscations and need for liquidity. Nowhere is the true cause of the phenomenon mentioned: the inevitable recession and economic crisis resulting from the artificial boom caused by the inflation of precious metals from America and the artificial credit expansion without an adequate base of real saving, derived from the practice of banking with a fractional-cash ratio.

Fortunately, Carlo M. Cipolla has covered this gap in theory of Ramón Carande, at least partially, and has made a study interpreting the banking and economic crisis of the second half of the sixteenth century which, although it refers strictly to the Italian banks, is also directly applicable to the Spanish financial system, as the trading and financial circuits and flows between the two nations were, at that time, intimately related.[4] Cipolla explains that the monetary supply (what is today called M1 or M2) in the second half of the sixteenth century included a large amount of "bank money" or deposits created out of nowhere by the bankers who did not keep a 100-percent-reserve ratio of the cash which had been deposited with them at demand by their clients. This led to a tremendous artificial thriving of the economy, which inevitably reversed in the second half of the sixteenth century when depositors began to experience economic difficulties and the wave of bankruptcies felt by the most important bankers in Florence began.

This expansionary phase was started in Italy, according to Cipolla, by the managers of the Ricci Bank, who used a significant part of the bank's newly created deposits to purchase public funds and grant credits. This policy of credit expansion dragged the other private banks along with it, if they wanted to be competitive and maintain their profits and market share. A state of credit euphoria was thus created, which gave rise to a great artificial expansion that soon began to revert. Thus, we can read an edict of 1574 in which accusations are made against bankers who refuse to return deposits in cash and which proclaims the fact that they only "paid with ink." They had increasing difficulties in returning deposits in ready money and a significant money shortage began to be perceived in the Venetian cities. The artisans could not withdraw their money or pay their debts and there was a heavy credit contraction (in other words, a deflation) and a deep economic crisis, which Cipolla analyzes in

detail in his brilliant book. Cipolla's analysis is, therefore, much more solid from a theoretical point of view than that of Ramon Carande, although it cannot be considered perfect, as it places the emphasis more on the crisis and the period of credit contraction than on the preceding phase of artificial credit expansion, which was the true origin of the evils and of which, in turn, the most intimate cause of the bankers' violation of the obligation to guard and conserve intact 100 percent of the *tan-tundem* or equivalent of the original deposits.[5]

The School of Salamanca and the Banking Business: The Initial Contribution of Doctor Saravia de la Calle

The financial and banking phenomena that we are discussing made an impression on the outstanding minds of the members of the School of Salamanca who, according to the most reliable research, are the forerunners of the subjectivist conception developed by the Austrian School of Economics.[6]

Chronologically, the first work we should mention, which is also, perhaps, the most relevant to our purpose, is *Instrucción de Mercaderes* ("Instruction of Merchants") by Doctor Saravia de la Calle, which was published in Medina del Campo in 1544.[7] Saravia de la Calle is extraordinarily hard on the bankers, whom he describes as "hungry gluttons, who swallow everything, destroy everything, confuse everything, steal and dirty everything, like the harpies of Pineo."[8] He tells us how the bankers "come out into the square and road with their table and chair and cashbox and book, like the whores to the brothel with their chair" and, having obtained the corresponding license and guarantee ordered by the laws of the kingdom, they devote themselves to obtaining deposits from the clients, to whom they offer bookkeeping and cashier services, paying into their account and even paying interest on such deposits.

With sound legal criteria, Saravia de la Calle says that receiving interest is incompatible with the nature of a demand deposit and that, in any case, a fee should be paid to the banker for keeping or guarding the money under his custody. He even reprehends harshly the clients of the banks who agree to enter into such deals with the bankers. He states: "And if you say, merchant, that you do not lend it, but that you place it (or deposit it), that is a greater mockery; who ever saw the depositary pay? He is usually paid for the safekeeping and the

work of the deposit; much more than that, if you now place your money with the moneylender as a loan or as a deposit, in the same way as you take your part of the profit that the moneylender takes, you also take part of the blame, and even the greatest part."[9] In Chapter 12 of his book, Saravia de la Calle also correctly distinguishes between the two radically different transactions which the banks carry out. On the one hand, the demand deposits, which the clients give, without any interest, to the bankers "to have them safer and to have them more at hand in order to deliver them to whom they are owed, and to free themselves from the burden and the work of reckoning and safekeeping, and also because, as thanks for this good deed which they do to the moneylenders in giving them their money, if it occurs that they have no money in the hands of the moneylender, the moneylender accepts some overdrafts from them also without interest."[10] On the other hand, very different from these contracts are the term "deposits," which are true loans and are characterized because they are given over a time period in exchange for interest. Saravia de la Calle, following the traditional canon law doctrine, deeply condemns this practice. Moreover, he clearly indicates that, in the case of the first type of demand-deposit contracts, the clients should pay the banker "because if they place monies in deposit, they must give for their safekeeping, not receive the profits given to them when they deposit monies or goods which must be safely kept."[11] Saravia de la Calle therefore criticizes those clients who selfishly try to take advantage of the illegitimate activity of the bankers, entrusting them with their money in demand deposits and trying to obtain interest on it. He adds the following illustrative words: "he is not free from sin, at least venial sin, because he entrusted the deposit of his money to whom he knows will not keep his deposit, but will spend his money, like he who entrusts the maiden to the lecher or the delicacy to the glutton."[12] Neither may the depositor clear his conscience by thinking that the banker will lend or use the money of others, but not his own as if "it is believed of him that he will probably keep that money of the deposit and will not lend it; and this probability cannot be thought of any of these moneylenders, but the contrary, that he will immediately lend it and deal and obtain earnings with it, because how can those who give 7 and 10 percent to those who give them monies leave the monies which are thus placed with them in deposit idle? And even if it were very certain that you do not sin (which it is not, but the

contrary), it is very sure that the moneylender sins lending your monies, and that he steals the patrimony of your neighbors with your money."[13] The doctrine of Saravia de la Calle is, therefore, quite clear: the use of money that is deposited at demand with the bankers, which in their own interest grant loans, is illegitimate and implies a grave sin. This doctrine fully coincides with the doctrine which was established by the classical authors on Roman Law and arises naturally from the essence, purpose and legal nature of the contract for the demand deposit of money.[14]

Saravia de la Calle is also very emphatic when talking about the enormous profits that the bankers receive from their illegitimate behavior of appropriating the deposits of their depositors, instead of being content with the lesser remuneration which they would receive for the simple safekeeping or custodial oversight of the deposits, like good fathers of families. Let us see how vividly he expresses this: "And if you receive wages, they should be moderate, for you to support yourselves, and not such excessive robberies that you build superb houses and purchase rich property, have excessive costs of family and servants, and hold great banquets and dress in such a costly fashion, especially when you were poor when you began to lend and left poor trades."[15] Saravia de la Calle indicates how the bankers have a great tendency to become bankrupt, even making a brief theoretical analysis which shows that, after the expansionary phase resulting from the artificial expansion of the credits which these *logreros* ("moneylenders") grant, there inevitably comes a phase of recession in which the bad debts cause a chain of bankruptcies among the banks. And he adds that, "if the merchant does not pay the moneylender, it makes him bankrupt, and thus he suspends payments and all is lost, of all which, as is notorious, these moneylenders are the beginning, occasion and cause, *because if they did not exist, each person would trade with his money as he could and no more, and thus things would cost their just price and more than the price in cash would not be charged*. And, therefore, it would be a great advantage if the princes did not consent to them in Spain, as no other nation in the world consents to them, and banished them from their court and kingdom."[16] As we know, it is not true that the governors of other nations had had more success in controlling the activity of the bankers or lenders than in Spain, as more or less the same was occurring everywhere and the kings ended up by granting privileges for the bankers to carry on their activities using the

money of their depositors for their own interest, in return for also being able to take full or partial advantage of a banking system from which they obtained funds much more easily and rapidly than from taxes.

As a conclusion to his analysis, Saravia de la Calle states that "under no circumstance should the Christian give his monies to these lenders because, if he sins in giving them, as he always sins, he should cease it because it is his own sin; and if he does not sin, he should cease it in order to avoid the sin of the moneylender." Moreover, Saravia de la Calle adds that, if the bankers are not used, there will be the additional advantage that the depositors "will not be startled if the lender suspends payments; if he becomes bankrupt, as we see so commonly and our Lord God permits, they and their owners will be lost like an ill-gained thing."[17] As we can see, Saravia de la Calle's analysis, in addition to its ingenuity and humor, is impeccable and has no contradictions, except, perhaps, that it puts too much emphasis on the criticism of the bankers for charging interest, which violated the canonical prohibition of usury, rather than for their undue appropriation of the demand deposits placed with them by their clients.

Martín de Azpilcueta Navarro

Another writer who made a correct analysis of the contract for the demand deposit of money is Martín de Azpilcueta, better known as "Doctor Navarro," in his book *Comentario Resolutorio de Cambios* (*Resolutory Commentary on Exchanges*), first published in Salamanca at the end of 1556. Martín de Azpilcueta expressly refers to "banking for safekeeping," which is the monetary demand-deposit transaction performed by the banks. For Martín de Azpilcueta, banking for safekeeping or the demand-deposit contract is completely fair and consists of the banker being the "warden, depositary and guarantor of the monies, which those who give him or send to him give to him or bank with him for what may be necessary; and that he is obliged to pay to the merchants, or to the persons whom the depositors wish in such or such a way, for which he may licitly take his fair wage, either from the republic or from the depositors; because this trade and duty is useful to the republic and does not contain any iniquity, as it is fair that he who works earns his wage. And the banker works in receiving, holding in deposit and ready the money of so many merchants, and in writing, giving and keeping accounts

with all of them, with great difficulty, and sometimes danger of errors in reckoning and other things. The same could be done with a contract with which a person committed himself to the others to receive and hold their money in deposit, give, pay and keep the accounts of all of them, as they tell him, etc., because this contract is of hire to another and from another of his works and employment, which is a designated, just and holy contract."[18] As we can see, for Martín de Azpilcueta, the contract of a demand deposit is a fully legitimate contract, which consists of entrusting the safekeeping, custody or deposit of money to a professional, the banker, who should care for it like the good father of a family, always keeping it at the depositor's disposal and performing the cashier services requested by the latter on his behalf. In return, he will have the right to receive the appropriate remuneration of his services from the depositors. In effect, for Martín de Azpilcueta, *the depositors should pay the depositary or banker*, never *vice versa*, so that the depositors "pay the former for the work and care of the banker in receiving and keeping their money and doing his work" and, therefore, the bankers should perform "their trade cleanly and be content with a just wage, receiving it from those who owe it to them and whose money they safeguard and accounts they keep and not from those who do not owe it to them."[19] Moreover, in order to avoid confusion and make things perfectly clear, Martín de Azpilcueta, along the same lines as Doctor Saravia de la Calle which we have seen above, expressly condemns the clients who do not wish to pay for the services of custody of their deposits or even try to receive interest on them. Thus, Doctor Navarro concludes that "in this type of exchange, not only the bankers sin, but, even . . . those who give them monies for them to keep, and do the same. And afterwards they do not want to pay them anything, saying that that which they earn with their money, and will receive from those to whom they pay in cash, suffices for their wages. And if the bankers ask them for anything, they leave them and go to deal with others, and so that they do not leave them, the bankers renounce the wage owed to them and take it from who does not owe it."[20]

The Contribution of Tomás de Mercado

Tomás de Mercado, in his *Suma de Tratos y Contratos* ("Compilation of Deals and Contracts"), Seville, 1571, makes an analysis of the banking business which follows a very similar line

to the two above authors. Firstly, he points out, following the correct doctrine, that the depositors should pay the bankers for the work of keeping their monetary demand deposits, concluding that "for all of them it is a common and general rule to be able to take wages from those who place money in their bank, either a certain amount each year or a certain amount for each thousand, as they serve them and keep their patrimony."[21] However, Tomás de Mercado ironically mentions that the bankers of Seville are so "generous" that they do not make any charge for the custody of the deposits, using the following words: "those of this city, it is true, are so regal and noble that they do not ask for or take any wage." And Tomás de Mercado remarks that the bankers of Seville do not need to charge anything as, with the large amount of money they obtain from the deposits, they carry out their private businesses, which are very lucrative. We should stress the fact that, in our opinion, the analysis made by Tomás de Mercado in this respect refers simply to an observation of a fact, and does not imply any acceptance of its legitimacy, as several modern critics appear to suggest. To the contrary, following the purest, classical-Roman doctrine and the essence of the legal nature of the contract for the demand deposit of money, Tomás de Mercado is the scholastic writer who most clearly shows that the transfer of property which occurs in the monetary bank deposit does not imply a parallel transfer of availability and, therefore, for practical purposes, a *full* transfer of property does not take place. Let us see how clearly he expresses this: "[the bankers] must understand that the money is not theirs but belongs to someone else, and that is not all, when they have it serve them, it ceases to serve its owner." Tomás de Mercado adds that the bankers should be subject to two basic principles, the first, "not to leave the bank so bare that they cannot then pay the drafts which come, because, if they make it impossible to pay them, spending and employing money in investments and speculative earnings or other deals, it is certain that they sin . . . The second: they should not enter dangerous businesses, because they sin, even if they result favorably, due to the danger of behaving wrongly and doing grave damage to those who trusted them."[22]

Although it is true that, with these recommendations, it seems as if Tomás de Mercado would admit the use of a certain fractional-reserve ratio, the fact is that he is very forthright in expressing his legal opinion that, in the final analysis, the money of the deposits does not belong to the bankers but to the

depositors and when he says, moreover, that no banker heeds his two recommendations: “but in the case of earning, when it is comfortable, it is very difficult to restrain avarice, none of them heeds these two warnings, nor meets these conditions.”[23] Therefore, he considers very favorably the enactment of a rule prohibiting the bankers from doing private business, in order to remove the temptation implied by financing them indefinitely with the money obtained from demand deposits.

In addition, elsewhere in *Suma de Tratos y Contratos*, at the end of chapter 4, Tomás de Mercado tells us that the bankers of Seville act as depositaries for the money and precious metals of the merchants from the fleet of the Indies and that, with such substantial deposits “they make great investments” and obtain lucrative profits, now without expressly condemning this type of activity, although it is true that the passage in question is a description of a state of affairs rather than an analysis of the legitimacy of the situation. This analysis is made in much more depth in chapter 16, which we have discussed above. Tomás de Mercado concludes, moreover, that the bankers “also become involved in giving and taking in exchange and in collecting, and a banker in this republic covers a whole world and embraces more than the ocean, although sometimes he leaves so many loose ends that everything goes to ruin.”[24]

The Cases of Domingo de Soto, Luis de Molina and Juan de Lugo

The scholastics who are most confused on the doctrinal treatment of the contract for the monetary bank deposit are Domingo de Soto and, above all, Luis de Molina and Juan de Lugo. In fact, these theorists allowed themselves to be influenced by the wrong medieval tradition of the glossators and, especially, by the doctrinal confusion which developed due to the concept of *depositum confessatum*. This was simply a loan which was disguised as a deposit in order to evade the canonical prohibition on charging interest, as this practice was considered acceptable if there was a (fictitious) delay on the part of the depositary. In fact, de Soto and, above all, Molina wrongly considered that the demand deposit was merely a “loan” which transferred not only the property, but also the full availability of the deposits to the banker and, therefore, it could be considered legitimate to use them as loans, provided that these were made “prudently.” It may be implied that Domingo de Soto was the first to uphold this

thesis, although very indirectly. In fact, in Book VI, Question XI of his work on *De Iustitia et lure (On Justice and Law*) (1556), we can read that, among the bankers, there was "the custom, it is said, that if a merchant makes a bank deposit in cash, as a result thereof the banker answers for a higher amount. I delivered ten thousand to the moneychanger, then he will answer for me for 12, perhaps 15; because it is very good earning for the banker to have money in cash. Neither is any vice found therein."[25] Another case of typical credit creation which seems to be admitted by Domingo de Soto is that of a loan in the form of the discount of bills financed against the demand deposits of the clients.

But perhaps the member of the School of Salamanca who upheld the most erroneous doctrine in relation to the contract for the demand deposit of money made by the bankers was Luis de Molina.[26] In fact, Luis de Molina, in his *Tratado sobre los Cambios* ("Treatise on Exchanges"), upholds the medieval doctrine that the demand deposit is merely a "loan" contract in favor of the banker, which transfers not only the property, but also the full availability of the thing and, therefore, the banker can legitimately use it in his own interest, in the form of loans or in any other way. Let us see how he expresses his argument: "because these bankers, like all the rest, are the true owners of the money which is deposited in their banks, in which they are greatly differentiated from the other depositaries . . . in such a way that they receive it as a loan with no rights attached and, therefore, at their own risk"; and, elsewhere, further on, he again repeats that "such a deposit is really a loan, as has been said, and the property of the money deposited passes to the banker and, therefore, in the event that it perishes, it perishes for the banker."[27] This doctrinal position is a clear lapse and contradicts what the writer himself says in his other work, *Tratado sobre los Préstamos y la Usura* ("Treatise on Loans and Usury"), where he warns that the *term* is an essential element of any loan contract and that, if the time for which a loan may be held is not expressly stated (as happens in a demand deposit) and no date has been fixed for its repayment, "it will be necessary to abide by what the judge judges as to the time for which it may be held."[28] In addition, Luis de Molina ignores the fact that the nature and legal essence of the demand deposit contract has nothing to do with the loan contract and, therefore, his doctrine which tries to identify the one with the other is a clear regression, not only in relation to the much more coherent

positions of Saravia de la Calle and Azpilcueta Navarro, but also in relation to the true legal nature of the contract as it had been developed by the old Roman legal tradition. It is, therefore, surprising that so clear and profound a mind as that of Luis de Molina did not realize how extremely dangerous it was to accept the violation of the general legal principles on the bank deposit and to say that "it never occurs that all the depositors need their money in such a way that they do not leave many thousands of ducats in deposit with which the bankers may do business to obtain profits or losses."[29] Molina did not realize that not only the objective or essential purpose of the contract, which is the safekeeping and custody of money, is thus violated, but that all kinds of illicit businesses and abuses are encouraged, which inexorably generate an economic recession and bankruptcy of the bankers. If the traditional legal principle which requires the continual safekeeping of 100 percent of the *tantundem* in favor of the depositor is not met, there is no clear guideline for avoiding bankruptcy of the bankers. And it is evident that such superficial and vague suggestions as to "try to act with prudence" or "not get involved in dangerous business" are insufficient to avoid the very prejudicial economic and social effects of fractional-reserve banking. However, Luis de Molina does at least take the trouble to point out that "a warning should be given that (the bankers) are in mortal sin if they commit the money they hold in deposit in their businesses to such an extent that they then find themselves unable to deliver, at the appropriate moment, the amounts which the depositors request or order to be paid against the money which they hold in deposit . . . Likewise, they are in mortal sin if they engage in such businesses that they are in danger of reaching a situation in which they cannot pay the deposits. For example, if they send so much merchandise overseas that, if the ship is wrecked, or if it is captured by pirates, it is not possible for them to pay the deposits, even if they sell their patrimony. *And not only are they in mortal sin when the business ends badly, but even if the outcome is favorable. And this is due to the danger to which they expose themselves of causing damage to the depositors and guarantors which they themselves contributed for the deposits*."[30] We consider this warning by Luis de Molina to be commendable, but we also consider it extraordinary that, it seems, he did not realize that it is, in the final analysis, intimately contradictory to his express acceptance of fractional-reserve banking, provided that the bankers practice it with "prudence." And it does not matter how prudent the

bankers are, the only way to avoid risks and to guarantee that the depositors' money is always at their disposal is by maintaining a cash ratio of 100 percent of all the demand deposits received.

After Molina, the only author who upheld an analogous position on banking is Juan de Lugo,[31] also a Jesuit. In our opinion, this can lead us to consider that, in relation to banking, there were two schools of thought within the School of Salamanca: one, well-founded and doctrinally correct (close to the future "currency school"), to which Saravia de la Calle, Azpilcueta Navarro and Tomás de Mercado belonged; and another, more inclined towards the capriciousness of the inflationist doctrine and the fractional reserve (close to the future "banking school"), represented by Luis de Molina, Juan de Lugo and, to a much less extent, Domingo de Soto. We will study these two points of view in more detail in the next section.

The School of Salamanca: Banking and Currency View

The contributions of the theorists of the School of Salamanca in the monetary field are important and have been the subject of detailed studies.[32]

The first scholastic treatise which dealt with money was written by Diego de Covarrubias y Leyva and published in 1550 under the title *Veterum Collatio Numismatum* ("Compilation on old moneys"). In this work, the famous Bishop of Segovia studied the history of the devaluation of the Castilian maravedi and compiled a large number of statistics on the evolution of prices. Although the essential ideas of the quantity theory of money are already implicit in Covarrubias' treatise, he does not put forward an explicitly articulated monetary theory.[33] Some years were to pass before, in 1556, Azpilcueta Navarro expressed, for the first time, clearly and convincingly that the increase in prices, if one prefers, the decrease in the purchasing power of money, was the result of the increase in the monetary supply which was taking place in Castile as a result of the massive inflow of precious metals from America.

In fact, the relationship between the amount of money in circulation and prices is impeccably expressed by Martin de Azpilcueta, for whom "in the lands where there is a great shortage of money, all the other things which may be sold, even the labor and work of men, are given for less money than in

places where there is an abundance; as can be seen from experience, in France, where there is less money than in Spain, bread, wine, clothing, labor and work cost much less; and even in Spain, at the time when there was less money, the things which could be sold and the labor and work of men were given for much less than after the Indies were discovered and covered her with gold and silver. *The cause of which is that money is worth more where and when it is lacking than where and when it is in abundance*."[34]

However, in contrast to the deep and detailed studies which have been made of the monetary theory of the School of Salamanca, up to now there has been practically no effort to analyze the position of the scholastics in relation to banking.[35] And nevertheless, as we have seen in preceding sections, the theorists of the School of Salamanca made a very acute analysis of banking practices and, to a great extent, were the forerunners of the opposing positions which, more than two centuries later, were reproduced in England in the controversy between the members of the *banking school* and those of the *currency school*.

In fact, we have already set out the profoundly critical treatment of fractional-reserve banking which we owe, mainly, to Doctor Saravia de la Calle and which is included in the final chapters of his *Instrucción de Mercaderes*. Martín de Azpilcueta and Tomás de Mercado also developed a rigorous and very demanding critical analysis of banking activities which, although it did not reach the degree of criticism of Saravia de la Calle, included an impeccable treatment of the demands which, in accordance with justice, should be observed in the monetary-bank-deposit contract. For this reason, and due to their rigorous critical analysis of banking, we may consider this first group of authors (most of them Dominicans) to form part of an incipient *currency school*, which had been developed from the start within the School of Salamanca and which characterized by upholding coherent and rigorous positions in respecting the legal demands of the monetary-bank-deposit contract and by being, in general, very critical and distrustful of the practice of banking activities.

In opposition to this first group of theorists, a second group of "members" (most of them Jesuits) of the School of Salamanca can be clearly distinguished. This group would be led by Luis de Molina and also included Juan de Lugo and, to a lesser extent, Lessius and Domingo de Soto. These authors followed the leadership of Molina and, as we have already explained, are characterized by the wrong legal foundations which they give to

the monetary-bank-deposit contract and by admitting that a fractional reserve be permitted, arguing that, more than a deposit, it is a "loan" contract. This is not the place to reproduce all the arguments against the position of Molina respecting the monetary bank deposit contract which merely repeat an error that, very much influenced by the *depositum confessatum*, had been upheld throughout the Middle Ages by the glossators. What we wish to emphasize here is that this second group of authors of the School of Salamanca was much more "comprehensive" with banking activities and even fully justified the practice outside the framework of traditional legal principles. It is not, therefore, inappropriate to consider this second group of authors to form part of an incipient *banking school* within the School of Salamanca who, like their successors of the English and continental banking school several centuries later, not only justified the practice of banking based on a fractional reserve, that is to say, violating basic legal principles, but also believed that this had very beneficial effects on the economy.

Although Luis de Molina's theoretical arguments on the bank deposit contract are a clear regression and cannot be upheld on the basis of traditional legal principles, it is, however, *curious to draw attention to the fact that this author is the first member of the banking school tradition who was capable of realizing that checks and documents ordering payment at sight of specific amounts charged against the deposits fulfilled exactly the same function as cash*. The assertion that it was the theorists of the English banking school who, in the nineteenth century, first generally argued that the demand deposits of the banks formed an integral part of the monetary supply and thus had the same effect on the economy as banknotes is, therefore, incorrect. More than two centuries earlier, Luis de Molina had already shown this idea clearly in Disp. 409 of his *Tratado sobre los Cambios*. Luis de Molina tells us that "the money is paid to the bankers in two ways: one, in cash, handing over the coins to them; and the other, by trade bills or any other bills which are given to them, by virtue of which he who has to pay a bill becomes a debtor to the bank for the amount which the bill indicates will be paid into the account of he who presents the bill at the bank."[36] Specifically, Luis de Molina refers to the written documents, which he calls in Latin *chirographis pecuniarum*, which were used as payment in the majority of market transactions. Thus, "although many transactions are made in cash, the majority are made by written documents which evidence either that the bank owes to them or

that it agrees to pay, and the money remains in the bank." Molina also says that these cheques are drawn with "sight" or demand value and adds that "these payments are usually called 'sight' because the money must be paid at the moment the bill is presented and read."[37]

But most importantly Molina expressed, much earlier than Pennington in 1826,[38] the essential idea that the total volume of monetary transactions carried out at a market could not be paid with the amount of cash which changed hands there, if it were not for the use of the money which the banks *generate* by their deposit entries and the issue of *checks* against them by the depositors. So that, thanks to the financial activity of the banks, a new amount of money is created from nowhere in the form of deposits, and is used in the transactions. In fact, Molina expressly tells us that "the majority of the transactions are previously carried out (are formalized) by signed documents; *as money is not so abundant as to be able to buy in cash the enormous quantity of merchandise which is taken there to sell, if they must be paid for in cash, nor to be able to carry out so much business*."[39] Lastly, Molina distinguishes very clearly between those operations which imply the grant of credit, as payment of a debt is temporarily postponed, and those which are carried out paying by check or by charging the amount to a bank account, concluding that "it should be observed that it is not considered that credit is bought if the price is charged to the bank account itself, even if at the time cash is not paid; as the banker will pay in cash the debit balance which exists, at least at the end of the market."[40]

Juan de Lugo follows firmly and absolutely the doctrine of Molina and erroneously considers, in the same way as the latter, that the monetary bank deposit is a "loan" which permits that, until the depositors require it, it may be used for the banker's private business.[41]

Molina and Lugo uphold such a confused position in respect to their legal foundations for the bank deposit contract that they even admit that the contract may simultaneously (!) have a different legal nature, depending on the party under consideration (in other words, it may be a deposit for the depositor and a loan contract for the depositary banker). Apparently, they do not see any incongruence in this position and, as we know, in respect of the bankers' activity, they fix only one limit: that they should act with "prudence" so that, by virtue of the law of large numbers, they always have sufficient liquidity

to allow the return of the deposits which are "normally" demanded from them. They do not realize that the criterion of *prudence* which they declare, is not an objective criterion that can guide the bankers' actions. It evidently does not coincide with the capacity to return the deposits held at any given moment and they themselves take great care to emphasize that the bankers are in "mortal sin" when they employ the funds of their depositors in imprudent and speculative activities, *even if they have a favorable result and they are able to return the money to the depositors on time*.[42] Moreover, the criterion of prudence is not, in itself, sufficient: one can be very prudent and, however, not be very shrewd or even have bad luck in business, so that, when the moment arrives, sufficient liquidity is not available and the deposits cannot be returned.[43] What, then, does the criterion of prudence consist of? It is clear that there is no objective reply to this question which could serve as a guide for the bankers' activities. Particularly when the law of large numbers is not applicable to fractional-reserve banking, since the credit expansion which it causes leads to the generation of recurrent cycles of boom and depression which, inevitably, place the bankers in difficult situations. And the fact is that fractional-reserve banking itself, as shown by the Austrian theory of the business cycle, generates liquidity crises and, therefore, the generalized insolvency of the banks. In any case, at the moment of the crisis, it is very possible that the bank cannot pay, in other words that it must suspend payments, and, even if all its creditors are lucky enough to finally collect their money, this will only happen, in the best of circumstances, after a long period of liquidation during which the role of the depositors will change, as they will lose the immediate availability of their money and become *compulsory savers*, who will be obliged to postpone collection of their deposits until the moment when the orderly liquidation of the bank culminates.

The above considerations are those which, without any doubt, lead Tomás de Mercado to indicate that the principles of prudence declared by Molina and Juan de Lugo constitute an objective which, in practice, *no* banker can meet. It seems as if Tomás de Mercado was aware that such principles did not serve as a practical guide in order to guarantee the solvency of the banks. And, if such principles are not efficient in permanently attaining the objective of solvency and liquidity, it is evident that a fractional-reserve banking system will not be able to meet its commitments under all conceivable circumstances.

The Contemporary Positions of the Jesuits Bernard W. Dempsey and Francisco Belda

In the present century, two Jesuit economists have again studied the doctrine of the scholastics concerning banking, one from the standpoint of the banking school and the other from the position of the currency school. The former is the Spanish Jesuit Francisco Belda, author of an interesting work entitled "Ética de la creación de créditos según la doctrina de Molina, Lesio y Lugo" ("Ethics of the creation of credits according to the doctrine of Molina, Lessius and Lugo").[44] In fact, for Father Belda it is evident that "from Molina's description, it may be deduced that, in the case of the bankers, there is authentic credit creation. Thanks to the intervention of the banks, a new purchasing power has been created, which did not exist previously. The same money is used simultaneously twice; the bank uses it for its business and so does the depositor. The overall result is that the payment means that circulation is several times greater than the real amount of money in cash which was originated by them and the bank benefits from all these transactions." Moreover, Belda considers that, for Molina, "it is licit to do business with the clients' deposits, provided this is done prudently, not risking being unable to meet one's obligations on a timely basis."[45]

With regard to Juan de Lugo, Belda indicates that he gives "a meticulous description of the bankers' practices. Here, there is explicit approval of credit creation, although not with the formal appearance of *created* credit. The banks do business with the deposits of their clients who, in turn, are not denied the use of their own money. There is an expansion of the payment means, produced by the banks through credits, the discount of trade bills and other economic activities carried on with the money of others. The final result is an increase in the purchasing power in the market very much greater than the amount represented by the cash deposits from which it originates."[46]

It is evident that Belda is correct in indicating how the doctrines of Molina and Lugo are, from among those of the scholastics, the most favorable towards the banking business. However, we are obliged to criticize Father Belda for not even mentioning the positions of the other members of the School of Salamanca, specifically those of Tomás de Mercado and, above all, of Martín de Azpilcueta and Saravia de la Calle, which are much more rigorous and critical when analyzing the banking institution. Moreover, Belda's analysis of the contributions of

Molina and Lugo is based on a Keynesian conception of the economy, which not only ignores all the negative effects which credit expansion provokes in the structure of production, but also considers it to be highly beneficial to the extent that it increases the "effective demand" and national income. Belda's analysis is, therefore, a study of the contributions of the members of the School of Salamanca from the point of view of the Keynesian and banking schools and is extremely confused regarding the legal justification of the institution of the monetary bank deposit, tending, therefore, to consider fractional-reserve banking to be legitimate.

There is, however, an economic treatise by another notable Jesuit, Father Bernard W. Dempsey, entitled *Interest and Usury*, [47] in which he analyzes the position of the members of the School of Salamanca on the banking business employing a profound knowledge of monetary and capital theory, very much superior to that of Father Belda.[48]

Curiously enough, Dempsey develops his thesis, not by analyzing the positions of the theorists of the School of Salamanca who are most unfavorable to banking activity (Saravia de la Calle, Martin de Azpilcueta Navarro and Tomás de Mercado), but by concentrating on the works of the representatives who are closest to the banking school, Luis de Molina, Juan de Lugo and Lessius, making an interpretative study of the works of these authors which leads him to conclude that *from the point of view of their own doctrines, banking activity based on fractional reserves would not be legitimate*. Dempsey's conclusion is based on the application of the traditional principles on usury defended by these authors to the banking institution and the economic effects thereof which, although they were completely unknown at the time the School of Salamanca was writing, had, however, already been theoretically revealed by Mises and Hayek when Dempsey wrote his book. In fact, although Molina and Lugo's more favorable treatment of banking must be acknowledged, Dempsey expressly indicates that the loans which are created from nowhere by the banks, as a result of practicing their activity with a fractional reserve, means the generation of purchasing power which does not require any prior saving or sacrifice and gives rise to important damage to a large number of third parties, who see how the purchasing power of their monetary units decreases as a consequence of the inflationary credit expansion of the banks.[49] According to Dempsey, this creation of purchasing power from nowhere,

which does not imply any prior loss of other people's purchasing power, is contrary to essential legal principles, as constructed by Molina and Lugo themselves and, in this respect, should be condemned. Specifically, Dempsey affirms that "we may conclude from this that a Scholastic of the seventeenth century viewing the modern monetary problems would readily favor a 100-percent-reserve plan, or a time limit on the validity of money. A fixed money supply, or a supply altered only in accord with objective and calculated criteria, is a necessary condition to a meaningful just price of money."[50]

Dempsey states that the credit expansion generated by the banking industry tends to depreciate the purchasing power of money, so that the banks tend to return the monetary deposits claimed from them in monetary units with an increasingly reduced purchasing power.[51] He therefore correctly concludes that, if the members of the School of Salamanca had had a detailed theoretical knowledge of the functioning and implications of the economic process to which fractional-reserve banking gives rise, it would have been described as a perverse, vast and illegitimate process of *institutional usury*, even by Molina, Lessius, and Lugo themselves.

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[1] See Murray N. Rothbard, "New Light on the Prehistory of the Austrian School," Edwin G. Dolan, ed., *The Foundations of Modern Austrian Economics* (Kansas City: Sheed and Ward, 1976), pp. 52–74. I have a letter from F. A. Hayek dated January 7, 1979, in which he states that, apart from Raymond de Roover, the researchers to whom we owe the establishment of the link between the School of Salamanca and the Austrian School are, chronologically, H.M. Robertson, *Aspects of the Rise of Economic Individualism* (Cambridge: Cambridge at the University Press, 1933); Marjorie Grice-Hutchinson, *The School of Salamanca* (Oxford: Clarendon Press, 1952); and, especially, Murray N. Rothbard in his above mentioned article.

[2] Ramón Carande, *Carlos V y sus Banqueros*, 3 vols. (Barcelona and Madrid: Editorial Crítica, 1987).

[3] Finally, with a great deal of effort, he managed to obtain two hundred thousand ducats but, as he wrote, "I am afraid of

causing the bankruptcy of all the banks of Seville."

See Ramón Carande, *Carlos V y sus Banqueros*, vol. 1, pp. 299–23, and esp. pp. 315–16, which deals with Gresham's visit to Seville.

[4] See Carlo M. Cipolla's important article "La moneda en Florencia en el Siglo XVI," published in *El Gobierno y la Moneda: Ensayos de Historia Monetaria* (Barcelona: Editorial Critica, 1994), pp. 11–142; esp. pp. 96 onwards. This book is the Spanish edition of the work originally published in Italian with the title *Il Governo della Moneta: La Moneta a Firenze nel Cinquecento* (Bologna: Societá editrice Il Mulino, 1990).

[5] Cipolla tells us how the Ricci Bank, from the seventies onwards, was not able to meet the demand for payments in cash and, *de facto*, suspended payments, as it paid simply "with ink" or "with bank policies." The authorities of Florence, looking only at the symptoms and trying, with typical good intentions, to resolve this worrying situation merely by decrees, imposed on bankers the obligation to pay their creditors in cash without any delay, but did not attack the fundamental causes of the phenomenon (the undue appropriation of the deposits as loans and failure to hold a 100-percent-cash ratio). This meant that the successive decrees issued met with inevitable failure and the crisis became gradually more serious until it broke out with its full virulence in the mid-1570s. Ibid., pp. 102–3.

[6] Among others, the following have recently studied the contribution of the Spanish scholastics to economic theory: Lucas Beltrán in "Sobre los orígenes hispanos de la economía de mercado," *Cuadernos del Pensamiento Liberal* 10, no. 1 (1989): 5–38; Marjorie Grice-Hutchinson, *Economic Thought in Spain: Selected Essays of Marjorie Grice-Hutchinson*, Laurence S. Moss and Christopher K. Ryan, eds. (Aldershot, England: Edward Elgar, 1993); Jesús Huerta de Soto, "Génesis, esencia y evolución de la Escuela Austriaca de Economia," *Estudios de Economia Política* (Madrid: Union Editorial, 1994), pp. 17–55; and esp. and most recently Murray N. Rothbard, *Economic Thought before Adam Smith: An Austrian Perspective on the History of Economic Thought*, vol. 1 (Aldershot, England: Edward Elgar, 1995), pp. 101–27. The intellectual influence of the Spanish theorists of the School of Salamanca on the Austrian School is not, however, a pure coincidence or a mere whim of history. It originates from and exists because of the intimate historical, political and cultural relations which, as from the reigns of Carlos V and his brother Fernando I, arose between Spain and Austria and which were to

continue for several centuries. In addition, Italy also played an important role in these relations, acting as an authentic cultural, economic and financial bridge over which the relations between the two furthest points of the Empire (Spain and Vienna) flowed. In this respect, Jean Berenguer's interesting book *El Imperio de los Habsburgos* (Barcelona: Editorial Crítica, 1993), should be consulted, particularly pp. 133–35. This book is the Spanish edition of the French original which was entitled *Histoire de L'empire des Habsbourg 1273–1918* (Paris: Librairie Arthème, Fayard, 1990).

[7] Luis Saravia de la Calle, *Instrucción de Mercaderes* (Medina del Campo: Pedro de Castro, 1544); republished in *Colección de Joyas Bibliográficas* (Madrid, 1949).

[8] Ibid., p. 180.

[9] Ibid., p. 181.

[10] Ibid., p. 195.

[11] Ibid., p. 196.

[12] Ibid., p. 197.

[13] Ibid.

[14] See Jesus Huerta de Soto, "A Critical Analysis of Central Banks and Fractional-Reserve Free Banking from the Austrian School Perspective," *Review of Austrian Economics* 8, no. 2 (1995): 25–38, esp. pp. 29–30 n. 6.

[15] Saravia de la Calle, *Instrucción de Mercaderes*, p. 186.

[16] Ibid., p. 190; emphasis added.

[17] Ibid., p. 198.

[18] Martín de Azpilcueta, *Comentario Resolutorio de Cambios* (Madrid: Consejo Superior de Investigaciones Cientificas, 1965), pp. 57–58. When studying the position of Doctor Navarro, I have worked with the first Spanish edition published by Andrés de Portonarijs in Salamanca in 1556, and also with the first Portuguese edition published by loam de Barreyra in Coimbra in 1560 with the title *Comentario Resolutorio de Onzenas*. The quotes contained in the main text appear in the Portuguese edition on pp. 77–80, and on pp. 74–75 of the first Spanish edition.

[19] Ibid., pp. 60–61.

[20] Ibid., p. 61.

[21] I quote the edition by the Instituto de Estudios Fiscales published in Madrid in 1977, edited and introduction by Nicolás Sánchez Albornoz, vol. 2, chap. 16, p. 479. There is another edition, by Restitute Sierra Bravo, published by the Editera Nacional in 1975, which includes the quote given in the main text on p. 401. The original edition was published in Seville in

1571 “en casa de Hernando Díez Impresor de Libros, en la calle de la Sierpe.”

[22] Tomás de Mercado, *Suma de Tratos y Contratos*, vol. 2, p. 480 of the edition of Institute de Estudios Fiscales and p. 401 of the edition of Restitute Sierra Bravo.

[23] Ibid., p. 480.

[24] This is the quote from Mercado that Ramón Carande includes in Vol. 1 of *Carlos V y sus Banqueros* in the introduction to his analysis of the bankers of Seville and the crisis which led them all into bankruptcy. See Tomás de Mercado, *Suma de Tratos y Contratos*, vol. 2, pp. 381–82 of the 1977 edition by Instituto de Estudios Fiscales and p. 321 of the edition by Restitute Sierra Bravo.

[25] According to Restitute Sierra Bravo, *El Pensamiento Social y Económico de la Escolástica*, vol. 1 (Madrid: Consejo Superior de Investigaciones Científicas, 1975), p. 215, this phrase of Domingo de Soto implies his acceptance of the banking business with a fractional-reserve ratio.

[26] It is very significant that various authors, among them Marjorie Grice-Hutchinson, are in doubt as to whether Luis de Molina should be included among the theorists of the School of Salamanca: “The inclusion of Molina in the School seems to me now to be more dubious.” Marjorie Grice-Hutchinson, “The Concept of the School of Salamanca: Its Origins and Development”, Chapter 2 of *Economic Thought in Spain: Selected Essays of Marjorie Grice-Hutchinson*, p. 25.

[27] Luis de Molina, *Tratado sobre los Cambios*, edition and introduction by Francisco Gomez Camacho (Madrid: Instituto de Estudios Fiscales, 1990), pp. 137–40.

[28] Ibid., p. 13.

[29] Ibid., p. 137.

[30] Ibid., pp. 138–39; emphasis added.

[31] R. P. Joannis de Lugo Hispalensis, S.I., *Disputationum de Iustitia et Iure, Tomus Secundus* (Lugduni, 1642), Disp. 28, Sec. 5, pp. 406–7. I would like to thank the Jesuit Father Prof. Enrique M. Urena and the Dominican Father Rodrigo T. Hidalgo who provided me with different copies of de Lugo’s original book.

[32] See, above all, the doctoral thesis which Marjorie Grice-Hutchinson published under the direction of F.A. Hayek with the title *of The School of Salamanca: Readings in Spanish Monetary Theory, 1544–1605*; Murray N. Rothbard, “New Light on the Prehistory of the Austrian School,” pp. 52–74; Alejandro A. Chafuen, *Christians for Freedom: Late-Scholastic Economics* (San

Francisco: Ignatius Press, 1986), pp. 74–86; and Murray N. Rothbard, *Economic Thought before Adam Smith: An Austrian Perspective on the History of Economic Thought*, vol. 1, pp. 101–27.

[33] The edition which I have used is the *Omnia Opera*, published in Venice in 1604, which includes the treatise on money by Diego de Covarrubias in vol. 1, under the full title of *Veterum Collatio Numismatum, cum his, quae modo expenduntur, publica, et Regia authoritate perpensa*, pp. 669–710. This work by Diego de Covarrubias is often quoted by Davanzati and, at least once, in chap. 2 of Galiani's famous *Della Moneta*, written in 1750. Also, and most significantly, it is quoted by Carl Menger, *Grundsätze der Volkswirthschaftslehre* (Vienna: Wilhelm Braumüller, 1871), p. 257; English edition, *Principles of Economics* (New York and London: New York University Press, 1981), p. 317.

[34] Martín de Azpilcueta, *Comentario Resolutorio de Cambios*, pp. 74–75; emphasis added.

[35] Not even in the most brilliant and recent work by Murray N. Rothbard, *Economic Thought before Adam Smith*, vol. 1, to which the present article should be considered a humble addendum.

[36] Luis de Molina, *Tratado sobre los Cambios*, p. 145.

[37] Ibid., p. 146.

[38] See James Pennington's memo dated February 13, 1826 "On the Private Banking Establishments of the Metropolis," included as an Appendix in Thomas Tooke, *A Letter to Lord Grenville; On the Effects Ascribed to the Resumption of Cash Payments on the Value of the Currency* (London: John Murray, 1826); Murray N. Rothbard, *Classical Economics: An Austrian Perspective on the History of Economic Thought* (Aldershot, England: Edward Elgar, 1995), vol. 2, pp. 230–33; and F.A. Hayek, "The Dispute Between the Currency School and the Banking School, 1821–1848," Chap. 12 of *The Trend of Economic Thinking: Essays on Political Economists and Economic History*, W.W. Bartley, III, and Stephen Kresge, eds., vol. 3 of *The Collected Works of F.A. Hayek* (London: Routledge, 1991), p. 224.

[39] Luis de Molina, *Tratado sobre los Cambios*, p. 147.

[40] Ibid., p. 149.

[41] "De Cambiis," R. P. Joannis de Lugo Hispalensis, Societatis Iesu *Disputationum de Iustitia et lure, Tomus Secundus, Lugduni 1642*, p. 406, Section 5, No. 60.

[42] Ibid., pp. 406–7.

[43] That is to say, in the terminology of Israel M. Kirzner,

"Economics and Error," in *Perception, Opportunity and Profit* (Chicago: University of Chicago Press, 1979), pp. 120–36, committing sheer or pure entrepreneurial error (which cannot be insured by the law of large numbers) which causes serious entrepreneurial losses, regardless of the degree of prudence with which one has acted.

[44] Published by the journal *Pensamiento: revista trimestral de investigación e información filosófica publicada por las Facultades de Filosofía de las Compañías de Jesús en España* 73, vol. 19 (January-March 1963): 64–89.

[45] Ibid., pp. 63 and 69.

[46] Ibid., p. 87. The reference to Juan de Lugo corresponds to *Disputationum de Iustitia et lure, Tomus Secundus* pp. 60–62.

[47] Bernard W. Dempsey, *Interest and Usury*, published with an introduction by Joseph A. Schumpeter (Washington, D.C.: American Council of Public Affairs, 1943). Attention should be drawn to the fact that Father Belda's article arose as a criticism, from the Keynesian point of view, of the theses upheld by Dempsey in this book. I would like to thank Professor James Sadowsky of Fordham University, who provided me with a copy of Dempsey's book, which was not available in Spain.

[48] Father Dempsey's broad theoretical knowledge and familiarity with the economic doctrines of Ludwig von Mises, Friedrich A. Hayek, Wicksell, Keynes and others is very much emphasized in Schumpeter's "Introduction" to his book. Moreover, Schumpeter quotes and praises Dempsey in his *History of Economic Analysis* (New York: Oxford University Press, 1980), pp. 95–96 and 104.

[49] "The credit expansion results in the depreciation of whatever circulating medium the bank deals in. Prices rise; the asset appreciates. *The bank absolves its debt by paying out on the deposit a currency of lesser value* . . . No single person perhaps would be convinced by a Scholastic author of the sin of usury. But the *process* has operated usuriously; again we meet systematic or institutional usury . . . The modern situation to which theorists have applied the concepts of divergence of natural and money interest, divergences of saving an investment, divergences of income disposition from tenable patterns by involuntary displacements, all these have a sufficient common ground with late medieval analysis to warrant the expression 'institutional usury' for the movement heretofore described in the above expressions." Father Bernard W. Dempsey, *Interest and Usury*, pp. 225 and 227–28.

[50] Ibid., p. 210. Incidentally, Father Dempsey points out that the theory of time preference may even date from Saint Thomas Aquinas, as it was expressly stated by one of the latter's most brilliant pupils, Giles Lessines, for whom "future goods are not valued so highly as the same goods available at an immediate moment of time, nor do they allow their owners to achieve the same utility. For this reason, it must be considered that they have a more reduced value in accordance with justice." See p. 426 of *Opusculum LXVI, De usuris in communi et de usurarum contractibus*, written by Aegidius Lessines in 1285 (quoted by Bernard Dempsey in Note 31 of p. 214). Dempsey's discovery of Lessines exposition of time preference was not included in Murray N. Rothbard's *Economic Thought before Adam Smith*, in which Rothbard considers San Bernardino of Siena and Conrad Summenhart to have been in 1431 and 1499 the first expositors of time preference theory (pp. 85 and 92).

[51] This is the same argument given by the *great* libertarian Jesuit Juan de Mariana in his book *De monetae mutatione (On the Alteration of Money*) published in 1609. Mariana condemns as robbery any government debasement of coins whereas Dempsey follows the same reasoning in relation to the even more disturbing credit inflation created by banks. On Juan de Mariana see the most brilliant analysis of Murray N. Rothbard, *Economic Thought before Adam Smith*, p. 119.

In Defense of Fiduciary Media —or, We are *Not* Devo(lutionists), We are Misesians! [1]

George Selgin and Lawrence H. White

The Murray Rothbard both of us knew was committed to a frank and vigorous contest of ideas. He understood that an expression of disagreement was not an expression of disrespect—quite the contrary. Here we wish to honor Rothbard's memory by addressing a set of issues surrounding fractional-reserve banking, issues on which we disagree with some of Rothbard's conclusions despite beginning (we believe) from many of the same premises. Our main concern is to defend the freedoms to issue and use fiduciary media of exchange. The vehicle for our defense is a response to criticisms of our views by Hans-Herman Hoppe in his article "How is Fiat Money Possible?—or, The Devolution of Money and Credit" (1994). Subsequent to Hoppe's article, Jesus Huerta de Soto (1995) and Jörg Guido Hülsmann (1996) have also offered criticisms of our position in lengthy articles in this journal. We address at a few points in the text below what we take to be de Soto's main arguments. Hülsmann's article has appeared too recently for us to address it directly here, but its arguments closely parallel Hoppe's. In particular, Hülsmann, like Hoppe, fails to appreciate Mises's (fairly standard) explanation of why fractional-reserve banking is feasible. We therefore believe that our rebuttal to Hoppe serves to rebut Hülsmann's main arguments as well.

The Origins of Fiat Money

It should be understood at the outset that fiduciary media, i.e., demandable bank claims that are not 100 percent backed by bank reserves of basic money, are *not* a type of fiat money. We do not intend to defend fiat money here, and have not defended it in our previous writings. Professor Hoppe unfortunately

suggests otherwise. In the course of arguing that "no fiat money can ever arise 'innocently,'" i.e., purely from free-market forces rather than from government intervention, Hoppe (1994, p. 49) criticizes at length what he calls "various prominent counterarguments." He names us as authors of one supposed counterargument, as though we had argued for the possibility of an innocent fiat money. In fact we have explicitly argued the opposite. In discussing the institutional evolution of free markets in money and banking we concluded (Selgin and White 1987, pp. 453–4) that "commodity-based money would persist in the absence of intervention, for the reason that the supreme salability of the particular money good is self-reinforcing," and that there is thus "no basis for the spontaneous emergence of a multi-commodity standard or of any pure fiat standard."[2]

How then do we think fiat money came to be? Our writings on the question have been plain enough. White (1989, pp. 59–61) has answered that "government has suppressed commodity money in favor of fiat money" and added: "I do not know of a single historical case of fiat money supplanting commodity money through competition rather than compulsion. . . . Historically, the introduction of fiat money . . . has come about by the permanent suspension of redeemability of the central bank's liabilities, enriching only the government." Selgin (1994c, p. 811) has addressed the question at length,[3] affirming the conclusion reached by Mises (and by Rothbard) that "States have never established fiat monies through 'social compacts,'. . . but rather have had to create them at first by taking convertible commodity-based monies that were already in circulation and 'depriving them of their essential characteristic of permanent convertibility.'" (The first internal quotation is from Rothbard, the second from Mises.)

The factual origins of fiat money are thus not, in our view, to be found in the free market. But is fiat money nevertheless a desirable innovation? We have not said so, and we do not think so. We regard the dismantling of commodity standards by governments as a great tragedy, something accomplished by highly objectionable means and having economically destructive consequences. The central banks' devaluation and finally repudiation of their contractual obligations to redeem their notes and deposits in gold involved massive confiscations of private wealth, and paved the way for ruinous episodes of inflation and depression the likes of which would not have been experienced under an unmanaged commodity standard.

"Fiat" Redefined by Fiat

Hoppe's grouping us with defenders of fiat money is therefore puzzling, especially given that he recognizes (pp. 69–70) that our monetary ideal "is a universal commodity money such as an international gold standard." So how are we supposed to favor both fiat and commodity money? The answer lies in a verbal sleight-of-hand. Although beginning his article with what seems to be the conventional definition of fiat money ("a medium of exchange which is neither a commercial commodity, a consumer, or a producer good, nor title to any such commodity; i.e., irredeemable paper money"), Hoppe tacitly redefines the category of fiat money to include banknotes and deposits that are redeemable-on-demand claims to commodity money, so long as they are not backed 100 percent by reserves of commodity money.[4] It *is* true that we have offered both ethical and economic arguments in defense of the contractual practice of fractional-reserve banking.

Any author is free to redefine terms as he pleases, but it is misleading for him to depart from an established usage without announcing plainly that he is doing so. Hoppe's expanded usage of "fiat money" is unorthodox, to say the least, even from an Austrian point of view. Mises (1966, p. 429, emphasis added), for one, defined fiat money as "money consisting of mere tokens which can neither be employed for any industrial purpose *nor convey a claim against anybody*." He carefully distinguished the category of base money or "money in the narrower sense," which includes gold coins (in a gold standard regime) and true fiat currency (in a fiat money regime), from the category of "money substitutes," which includes fractionally-backed checking deposits and banknotes (which of course *do* convey a claim against banks). Finally, Mises (1966, p. 433; 1980, appendix B) referred to that portion of redeemable money substitutes backed by assets other than base money as "fiduciary media," not as any kind of fiat money. Rothbard (1970a, p. 703) follows Mises's terminology in every particular. According to the Misesian terminology, then, a fractionally-backed banknote that is *de facto* redeemable, and is recognized by the public to be redeemable, is not an example of fiat money. Contrary to Hoppe's (pp. 49, 73) innovative phraseology, it is neither a "fractional" fiat money nor a "partial" fiat money.[5] It is instead a fractionally or partially fiduciary medium.

Labels aside, Hoppe's lumping together of fiduciary media

with fiat money is substantively misleading, because it blurs important theoretical differences between the two. The determinants of the quantity of fiduciary media in a fractional-reserve banking system are quite distinct from the determinants of the quantity of fiat money. Economic factors strictly limit the quantity of fiduciary media a banking system can issue, given its reserves of base money. The quantity of fiat money, by contrast, is not subject to any natural economic limit.[6] We have argued (Selgin and White 1994, pp. 1734–5) that a natural limit to the quantity of fiat-type (i.e., irredeemable, non-commodity) money would be lacking even if such money were issued by competing firms. Thus Hayek's (1978) proposal for private fiat-type money unfortunately fails to secure the quantity and value of money. A "free banking" regime with competing issuers of redeemable notes and deposits is quite distinct from a Hayekian regime of "competing fiat monies."

Normative and Positive Questions

Given the difference between fiduciary media and fiat money, as those terms are used by Mises and Rothbard, the questions arise whether it is ethically or economically defensible to allow *fiduciary media* to be issued. We side with Mises, and part company from Rothbard and Hoppe, by acknowledging the legitimacy and practical advantages of fiduciary media and fractional-reserve banking. We base the legitimacy argument on Rothbardian normative analysis, and the practical-advantages argument on Misesian economic analysis.

Rebutting the Charge of Fraud

Rothbard (1962, 1983b, 1990, 1995) long argued that fractional-reserve banking is inherently fraudulent, and Hoppe follows Rothbard down this unfortunate blind alley. We find the inherent-fraud position impossible to reconcile with Rothbard's (1983a, pp. 133–48) own title-transfer theory of contract, which we accept, and which Rothbard otherwise uses to defend the freedom of mutually consenting individuals to engage in capitalist acts with their (justly owned) property. Rothbard (1983a, p. 142) defines fraud as "failure to fulfill a voluntarily-agreed upon transfer of property."[7] Fractional-reserve banking arrangements cannot then be *inherently* or *inescapably* fraudulent. Whether a particular bank is committing a fraud by holding

fractional reserves must depend on the terms of the title-transfer agreements between the bank and its customers.

Rothbard (1983a, p. 142) in *The Ethics of Liberty* gives two examples of fraud, both involving blatant misrepresentations (in one, "A sells B a package which A says contains a radio, and it contains only a pile of scrap metal"). He concludes that "if the entity is not as the seller describes, then fraud and hence implicit theft has taken place." The consistent application of this view to banking would find that it is fraudulent for a bank to hold fractional reserves if and only if the bank misrepresents itself as holding 100 percent reserves, or if the contract expressly calls for the holding of 100 percent reserves.[8] If a bank does not represent or expressly oblige itself to hold 100 percent reserves, then fractional reserves do not violate the contractual agreement between the bank and its customer (White 1989, pp. 156–57). (Failure in practice to satisfy a redemption request that the bank is contractually obligated to satisfy *does* of course constitute a breach of contract.) Outlawing voluntary contractual arrangements that permit fractional reserve-holding is thus an intervention into the market, a restriction on the freedom of contract which is an essential aspect of private property rights.

Hoppe declares our defense of the freedom to make fractional-reserve-compatible contracts to be "silly" because, he asserts, "few if any" depositors have ever realized that some of their deposits are being loaned out, even though (as he acknowledges) the payment of interest on deposits would otherwise be impossible. We doubt that most depositors are as naive as Hoppe believes. As Rothbard (1990, p. 47) has correctly observed, "It is well-known that banks have rarely stayed on a '100 percent' basis very long." We thus find it hard to believe that most people who patronize fractional-reserve banks do so under the delusion that 100 percent of the money they deposit remains in the bank's vault until the moment they ask for it back. (We return to this issue below.)

But whether the informed would-be customers of fractional-reserve banks be a majority or a minority, their freedom of contract is at stake. If *any* person knowingly prefers to put money into an (interest-bearing) fractional-reserve account, rather than into a (storage-fee-charging) 100 percent reserve account, then a blanket prohibition on fractional-reserve banking by force of law is a binding legal restriction on freedom of contract in the market for banking services.

Walter Block (1988, pp. 28–30), though he (following

Rothbard) judges fractional-reserve banking "as presently constituted" to be "a fraud and a sham," acknowledges that fractional-reserve banking *could be* non-deceptive and voluntary. To make it so, Block argues, the bank needs to affix an adequate disclaimer to banknotes and deposit contracts regarding the bank's fractional-reserve-holding and redemption policies. Hoppe (1994, p. 71), citing Block, similarly allows that fractional-reserve practices would be non-fraudulent if the bank explicitly informed depositors that it reserved the right to "suspend or defer redemption" at any time.

If the proponents of the "fraud" objection to fractional-reserve banking thus concede that the objection vanishes when banks apply the equivalent of a "warning sticker," then they concede that fractional-reserve banking is not inherently fraudulent. Fraud occurs only if a bank's customers are misled about its practices. The remaining normative debate boils down to the question of whether a warning sticker really is needed to avoid misleading customers (which in our view depends on whether the reasonable default assumption, absent a sticker, is really that 100 percent reserves *are* being held), and, if so, to the question of how explicit the sticker must be. There is also the positive question of whether fractional-reserve banknotes and deposits really could circulate among an informed public.

Our view is that a mandatory "warning sticker" is certainly less objectionable than an outright ban on fractional-reserve banking, and would not impede the practice of fractional-reserve banking, but that it is not really needed to avoid misrepresentation, because a "deposit" is *not* commonly understood to be a 100-percent-reserve bailment unless otherwise specified. As Rothbard (1970b, p. 34) once described the libertarian approach to preventing product adulteration, "if a man simply sells what he calls 'bread,' it must meet the *common definition* of bread held by consumers, and not some arbitrary specification. However, if he *specifies* the composition on the loaf [Rothbard does not suggest that this should be mandatory], he is liable for prosecution if he is lying." We maintain that the common definition or default meaning of a "bank deposit" is, as courts have recognized (Rothbard 1983b, pp. 93–94), that of a debt claim against the bank and not of a warehouse receipt.

Block and Hoppe propose slightly different warnings as adequate to avoid fraud. It is not clear whether they are merely offering examples, or instead believe these to be the only sorts of adequate warnings. Block's warning would detail the bank's

reserve ratio and its policy for meeting redemptions when they exceed its reserves (e.g., first-come first-served). His example seems to assume that the bank would hold a *fixed* reserve ratio (because it specifies the precise ratio on its notes). The bank and its customers might well both prefer, however, to allow the bank discretion to vary the ratio as prudence dictates. Under varying conditions, a varying ratio is necessary to maintain a constant default risk. Hoppe's warning would inform claim-holders that the bank reserves the right to suspend or defer redemption at any time.[9] But some banks and their customers might prefer a demandable debt contract that does not give the bank any such right to suspend. What then?

Hoppe likens his warning to the "option clauses" historically placed on banknotes, but it should be noted that such clauses only allowed for the deferral, or temporary suspension, and never for the indefinite suspension of redemption (who, after all, would freely choose to take a *permanently* suspendable note?). The Scottish banks that issued option-clause notes explicitly reserved the right to defer redemption for a specified period, in which case the note would be repaid with a specified (and high) interest bonus.[10] In practice the banks went decades without invoking the option, and the clause-laden notes circulated easily at par, because the banks were not expected to invoke the option. Hoppe's prediction that option-clause notes "would be uniquely *un*suited to serve as a medium of exchange" is false, to judge by the Scottish evidence.

Equally without historical support is Block's (1988, pp. 30–31) suggestion that, because the holder of a note issued by a bank with a 20 percent reserve has only a 20 percent chance of redeeming it in the event of a bank run, a note issued by a bank known to hold fractional reserves is indistinguishable from a lottery ticket, and would be valued below par if the public were to "fully digest" the implications of its issuer's fractional reserves. It is true that a particular bank's notes would be valued below par if market participants worried that they might not be able to redeem the notes ahead of an imminent run on that bank. But such notes, on which default was considered a non-negligible risk, would not continue circulating, even at a discount. They would immediately be presented for redemption, and thus removed from circulation. The surviving brands of notes would be only those for which all redemption demands made in practice were expected to be met (see Mises 1966, p. 445). Fractional-reserve notes issued by respected banks—and such

banks were not historically rare—were in fact able to circulate widely *at face value* because other banks and the public rightly recognized that the practical likelihood of experiencing any difficulty in redeeming the notes was negligibly small.

The notion that a fractionally-backed banknote is akin to a lottery ticket seems to rest on a failure to appreciate the simple fact that fractional-reserve banking *is feasible*, that is, that a fractional-reserve bank can in practice continually fulfill its contractual obligation to redeem on demand. A fractionally-backed claim to basic money, a banknote or checking deposit balance, can itself serve as a medium of exchange. Because it is thus useful even without being redeemed for basic money, there is no reason to expect all the claims issued by a bank (unlike claims to bread, or winning claims against a lottery) to be redeemed in a given period. As Mises (1980, pp. 299–300) put it, a banker "is therefore in a position to undertake greater obligations than he would ever be able to fulfill; it is enough if he takes sufficient precaution to ensure his ability to satisfy promptly that proportion of claims that is actually enforced against him."

A demand deposit is the limiting case of a short-term deposit. Hoppe's view that it is infeasible for a bank to hold a fractional reserve against its demand liabilities would seem to imply that it is generally infeasible for a bank to borrow short and lend long, or to practice anything less than perfect maturity matching of liabilities with assets. Rothbard (1983, p. 99) argues explicitly that any bank that practices maturity-mismatching, i.e., has time deposits coming due before loan payoffs arrive, is violating "a crucial rule of sound financial management." The practice is feasible (does not inevitably doom a bank), however, if the bank can count on rolling over or replacing at least some of its time deposits as they come due. Maturity-mismatching clearly does involve risks: not only liquidity risk, but also interest-rate risk. But surely the rules of sound financial management do not say that risk should never, ever be taken. Rather, they call for risk to be balanced against the return for risk-taking. A risk can be worth taking if the risk is small enough relative to the reward for taking it. When long-term market interest rates are higher than short-term rates, banks do earn a reward for assuming the risks involved in intermediating short-term deposits (including demand deposits) into longer-term loans. The view that fractional-reserve banking and maturity mismatching in general are "inherently unsound" practices seems to suggest that no bank

should ever knowingly engage in any risk-return tradeoff with regard to the maturity structure of its balance sheet.

Jesús Huerta de Soto (1995, p. 30) rejects "the trite argument that the 'law of large numbers' allows the banks to act safely with a fractional reserve," on the grounds that "the degree of probability of an untypical withdrawal of deposits is not, in view of its own nature, an insurable risk." It is true that the atypical withdrawals known as bank runs are not random events. But it does not follow that a bank cannot survive with fractional reserves, because solvent banks are not inherently run-prone. Even in countries (e.g., Scotland, Sweden, Canada) where the legal system vigorously enforced the banks' contractual obligation to pay on demand (and even where legislatures outlawed the contractual escape hatch from runs provided by an option clause), well-known banks with fractional reserves did not experience runs and continually met all their redemption demands for decades (Dowd 1992; Selgin 1994a).

If runs *were* a problem even with solvent banks—that is, if depositors ran simply out of fear that others would run, thereby forcing any less-than-perfectly-liquid bank to default—an option clause would be an available contractual remedy.[11] An option clause in note and demand deposit contracts gives the bank the option to suspend payments in the event of a run, for a period long enough to allow the bank to liquidate its non-reserve assets in orderly fashion. To make the clause acceptable to customers, judging by the historical example of the Scottish optional notes, the bank would have to specify the period of suspension (or at least its maximum length), and obligate itself to make a compensatory interest payment (in addition to returning the note's face value in base money) at the end of any suspension period. This payment would not only compensate the customer for the inconvenience and delay, but would also give the bank a visible incentive not to invoke the option except when necessary (in technical jargon, it would make the contract "incentive-compatible"; it avoids a potential moral hazard problem by penalizing a bank that skimps on reserves and thereby runs too great a risk of suspension). Historically, as discussed in the text, some banks did write such option-clause contracts, where their legislatures did not forbid them to do so.

But how do we know that not everyone who accepted a fractional-reserve note at face value was in the dark about its fractional backing? At the very least we know that competing *banks* participated in clearing arrangements in which they agreed

to accept one another's notes at par. Certainly the bankers were not in the dark. They did not expect—or find—defaults at the clearinghouse to be more than extremely rare.

Third-Party Effects

Apart from the fraud and feasibility questions, Hoppe (pp. 70–71) offers another ("and more decisive") set of reasons why fractional-reserve banking contracts should be banned: they have spill-over effects on others. His argument bears quoting:

> Whenever a bank loans its "excess" reserves to a borrower, such a bilateral contract affects the property of third parties in a threefold way. First, by thereby increasing the money supply, the purchasing power of all other money owners is reduced; second, all depositors are harmed because the likelihood of their successfully recovering their own possessions is lowered; and third, all other borrowers—borrowers of commodity credit—are harmed because the injection of fiduciary credit impairs the safety of the entire credit structure and increases the risk of a business failure for every investor of commodity credit.

Let us consider these three third-party effects in turn.

(1) The first effect, the reduction in the purchasing power of money, provides no justification for legally barring the bank's action. To think that it does is to commit the elementary mistake of confusing spill-overs from others' actions to the *value* of C's property, which are an inescapable free-market phenomenon and not a violation of C's property rights, with *physical invasions* of C's property, which are of course inconsistent with the protection of C's property rights.[12] It should be obvious that if A and B are to be barred from any transaction that merely affects the *market value* of C's possessions, without any physical aggression or threat against C or C's rightful property, then the principles of private property, freedom of contract, and free-market competition are completely obliterated. Is B to be barred from offering to sell compact disc recordings to A, merely because doing so reduces the market value of C's inventory of vinyl records?

To further illustrate the point, consider another non-banking example. Suppose that A, who owns but seldom uses a Florida

condominium, contracts with B to time-share B's condominium. A then sells his own condominium, causing the value of neighbor C's condominium to fall. Does this mean that the contract between A and B should not be allowed? Has A robbed C? Not according to the Rothbardian view of property rights. If Rothbard's view of property rights is accepted, Hoppe's first effect is invalid as a ground for thinking that the principle of freedom of contract excludes fractional-reserve contracts.

(2) Hoppe's second supposed effect is that all depositors are "harmed" by the bank lending out any of its reserves, because the likelihood of their successfully redeeming their own deposits is lowered. But if those depositors have freely and knowingly agreed to fractional-reserve contracts, rather than choosing to store their money in a 100-percent-reserve institution, they have agreed to take the risk. Presumably they have agreed in order to get the deposit interest payments (or unpriced bank services) that the revenue from bank lending makes possible, and which competition for depositors compels the bank to provide to its customers. By the principle of demonstrated preference (Rothbard 1957) depositors must be presumed to benefit from the package they have agreed to accept, risk and all.

(3) Finally, Hoppe's claim that "fiduciary credit impairs the safety of the entire credit structure" is difficult to evaluate, because Hoppe does not explain how this effect is supposed to work.[13] We imagine that Hoppe has in mind something like the notion Adam Smith (1981, p. 321) expressed by saying that "The commerce and industry of the country . . . though they may be somewhat augmented [because less of the country's capital stock is being tied up in gold and silver], cannot be altogether so secure, when they are thus, as it were, suspended upon the Daedalian wings of [bank-issued] paper money, as when they travel about upon the solid ground of gold and silver." If so, we grant the point that a risk to a bank and its customers is involved in the bank's funding loans by issuing banknotes and demand deposits, rather than relying entirely on time deposits. There may even be spill-over effects upon the risks faced by third parties. Nonetheless we side with Smith in thinking that the risks are small in comparison with the benefits. Benefits accrue to bank depositors and noteholders, who receive interest and services paid for by the extra bank revenue generated from lending out a portion of its liabilities. Benefits accrue to bank borrowers who enjoy a more ample supply of intermediated credit, and to everyone who works with the economy's consequently larger

stock of capital equipment. And benefits must accrue to bank shareholders, who could choose to have the bank not issue demand liabilities if they found the risks not worth bearing.

We consider below the resource cost savings and "inherent instability" of a fractional-reserve system. With both factors considered, a higher standard of living is made possible by allowing those members of the public who so prefer to substitute fiduciary media for the holding of gold and silver coin (White 1992, pp. 520–21). As Mises (1980, p. 359) put it: "Fiduciary media tap a lucrative source of revenue for their issuer; they enrich both the person that issues them and the community that employs them."

The entire credit structure can be made radically unsafe by central banking and other government intervention (Selgin 1989; Salsman 1990), but the effects of those measures should not be charged to fractional-reserve banking as such. As we discuss in more detail below, an unhampered fractional-reserve banking system is not inherently unstable or prone to cyclical over-expansion.

The Popularity of Fractional-Reserve Banking

Let us return to the question of how large or small is the pool of voluntary fractional-reserve depositors. The group whose freedom of contract we are concerned with here is not a small eccentric bunch, but is the great mass of people who have demonstrated that they do prefer banks that operate on fractional reserves. To quote Rothbard (1990, p. 47) again, with emphasis added, "It is *well-known* that banks have rarely stayed on a '100 percent' basis very long."[14] Yet depositors continue to patronize these banks, demonstrating their preference for them.

There are several reasons why fractional-reserve practices are and have been well-known.

First, as Hoppe (p. 70) acknowledges, from the fact that banks pay interest on demand deposits "it *should* have been clear that the bank *must* loan out deposits."[15] A bank that offers interest on its demand deposits, and does not charge warehousing fees, gives its depositors clear notice that some fraction of their funds will be put to work and not warehoused.

Second, if the vast majority of people thought that their banks held 100 percent reserves, bank runs would have occurred only when there was a suspicion that the banker was about to

abscond with the reserves.[16] The history of banking before deposit insurance indicates that when bank runs have occurred, this has typically been for other reasons (Gorton 1988). Depositors' behavior has generally been consistent with their realizing all along that their banks held fractional reserves, and that they would pay them out on a first-come first-served basis. Generally depositors remained confident that the reserves were sufficient to meet all actual demands for cash. But occasionally, and more frequently in some systems than in others, they lost their confidence, and staged runs. Runs were typically triggered by reasonable doubts about a bank's solvency. Heavier government intervention was a background condition explaining why some countries (like the United States) but not others (like Canada) had chronically weak or insolvency-prone banks (Selgin 1994a).

Early in the history of banking there may have been a case of a run being triggered by depositors' sudden realization that their bank held only fractional reserves.[17] But if such a realization had been the typical cause of runs in the nineteenth and twentieth centuries, it would be difficult to explain why runs usually affected only one particular bank or an associated set of banks, and not every single fractional-reserve bank simultaneously. Running depositors who successfully withdrew their money often transferred it to other fractional-reserve banks, thought to be safer, rather than hoarding cash as they would have done if they feared fractional-reserve banks generally (Kaufman 1994). It would be farfetched to account for such behavior by insisting that the depositors had run because they had learned to their horror that their own banks had been holding fractional reserves, but were so naive as to put their money into another set of banks without suspecting them of similar practices.

Third, banks and banking legislation were widely debated in the popular press during the nineteenth century. All discussions we are aware of took it as common knowledge that banks operate on fractional reserves. It would be impossible to think that banks were holding 100 percent reserves after reading in the newspaper about such measures as, for example, the New York State Safety Fund (a deposit insurance scheme), or the so-called "free banking" acts that compelled state-chartered banks to hold specific sorts of interest-bearing assets as collateral against banknote liabilities.[18]

Fourth, fractional-reserve banking has never been

compulsory. Depositors have always been free to insist on 100 percent reserves. They can do so even now, by hiring safety-deposit boxes and stuffing them with cash. (Some do, but mainly to hide their wealth rather than to secure it against bank failure.) Few people have taken the 100-percent-reserve option because—as Rothbard (1990, p. 47) forthrightly acknowledges—it means foregoing interest and paying warehousing fees instead. Most depositors would rather receive interest on their deposits, and consider it more than adequate compensation for the risk involved in fractional-reserve banking. (Here again, we are drawing on evidence from banking systems with relatively unhampered banks and no government deposit guarantees.)

We infer, in accordance with the Rothbardian notion of "demonstrated preference" (Rothbard 1957), that the vast majority of consumers have preferred fractional-reserve banking. Against this Hoppe offers his *a priori* conviction that most depositors could not, would not, and did not ever knowingly engage in such a risk-return tradeoff. For Hoppe the offer of interest on fractionally backed demand deposits is just a swindler's come-on, which millions of depositors have unwittingly fallen for, wholly innocent of the fact that banks can generate the revenues that go to pay the interest only by lending out some fraction of their deposits.

The fact that banks compete for depositors poses a problem for Hoppe's position that cannot be so casually brushed aside. Rivalrous competition by fractional-reserve banks seeking depositors' funds will bid up deposit interest rates (and increase the level of services provided) to the point where banks have to pay such high interest (and provide so many services) to attract deposits that entry is no longer attractive. Thus competition will beat down the returns to capital invested in fractional-reserve banking until the marginal bank is earning only the normal rate of return. In this situation, were it really true that most depositors are willing to forego the interest they are receiving (and instead pay storage fees) in order to have the security of a 100-percent-reserve bank—but simply don't realize that their banks aren't holding 100 percent reserves—then any banker (who *does* know what the banks are up to, after all), possessing even an ounce of entrepreneurial insight, would see an easy way to grasp pure profit. All the banker has to do is to offer credible 100-percent-reserve accounts, while alerting the public to the other bankers' practices, and depositors will come flocking in. [19] If 100-percent-reserve banks are legal and really would be

preferred by the majority of informed depositors, and the only reason depositors continue to patronize existing banks is ignorance of their fractional practices, then there would be a huge profit to be had by being the first to inform depositors and to offer them the alternative practice.

There have been historical banking systems where explicit 100-percent-reserve banks could have entered the market and where deposit insurance did not exist to slant the playing field in favor of fractional-reserve banks. Yet very few (if any) banks, after the earliest days of banking, have ever tried to attract depositors on that basis. Even if there were one or two such banks in the early days, clearly their approach never spread to dominate the banking market the way it would have if most depositors were truly ready to pay the fees necessary for 100-percent-reserve banking. Maybe entrepreneurship doesn't tend to sniff out profits as well as the Austrian theory of the market process usually suggests. We think it more likely that 100-percent-reserve banking is just not very widely demanded, because of its foregone-interest cost.[20]

The Resource Cost Savings From Fiduciary Media

Hoppe (pp. 56–58) considers but rejects a standard economic argument we accept concerning fractional-reserve banking: that it reduces the resource costs associated with indirect exchange, by partially substituting bank-issued exchange media for commodity money, thereby reducing (inframarginally) the resource costs of producing money. The resource-cost-saving view is expounded not only by Adam Smith but also by Ludwig von Mises. In *The Theory of Money and Credit*, Mises (1980, p. 333) observes that, thanks to the development of fiduciary media and clearing systems among their issuers, a "tremendous increase in the exchange value of money, which otherwise would have occurred . . . has been avoided, together with its undesirable consequences." The "undesirable consequences" are the diversion of capital and labor "from other branches of production to the production of the monetary metal." Had it not been for the development of fiduciary media, Mises points out, "the welfare of the community would have suffered" because "a smaller quantity of economic goods would have been available for the direct satisfaction of human wants."[21] We are puzzled that Rothbard (1990, pp. 33–34), while emphasizing the point that once an economy is fully monetized there is no benefit to money-users

from producing more units of money, does not follow Mises in recognizing the consequent value of economizing on the resources used to produce more money.[22]

Although many mainstream economists believe that a fiat base money is less costly than a commodity base money, we do not share that view. Fiat money is different because its introduction is involuntary, so that it does not pass a demonstrated preference test, and because its quantity is subject to arbitrary expansion by its issuer, making a fiat system potentially very costly for the economy even if the monetary demand for gold and thus the costs of gold mining were reduced.[23] Our position is rather that, *given* a commodity standard, informed money-users benefit when those who want to are allowed to hold fractionally backed notes and demand deposits. Potential gains from voluntary trade are lost when the public is restricted to full-bodied coins and 100-percent-reserve deposits.

Hoppe (p. 58) denies that redeemable bank monies can save resources. The savings are illusory, he thinks, because "the overwhelming bulk of the population would employ money proper for most of their purchase or sales." In a footnote (p. 58 n. 11) he adds, without citing a source of evidence: "Indeed, historically this has been the case: Traditionally, notes have always been widely distrusted, and their acceptability—as compared to that of genuine money such as gold or silver coins—was severely limited."

The facts are otherwise. Throughout the silver and gold standard eras, consumers given a choice ordinarily demonstrated a marked preference for banknotes over full-bodied coins as a more convenient medium of exchange for all but the smallest transactions. The demonstration of preference was especially clear where banking was relatively unhampered by legal restrictions. In Scotland during the free banking era (1716–1844), according to Checkland (1975, p. 382), the first object of any recipient of a gold sovereign was "to get quit of it in exchange for a bank note." Virtually all sizable payments were made with banknotes. Similar practices prevailed in Canada (National Monetary Commission 1910, p. 53).

Inherent Instability

Apart from the "fraud" issue and third-party wealth effects, Hoppe believes that fractional-reserve banking is a bad thing because it supposedly produces a monetary instability that

contributes to credit cycles and banking crises. We share the view that monetary instability contributes to cycles and crises, but we attribute monetary instability to central banking and other government intervention in the monetary system, not to fractional reserves *per se* or to the practices of competing fractional-reserve commercial banks.[24]

Hoppe views fractional-reserve banking as something that a proper legal code would ban, and instability as a problem inherent in fractional-reserve banking, and therefore does not distinguish the effects of free banking from the effects of government intervention. Nor does he offer any historical evidence that might test his view against our view. He does take issue with our theoretical argument that free banking tends to permit expansion of the stock of fiduciary media only to an extent consistent with the preservation of monetary equilibrium and the avoidance of the credit-expansion-induced business cycle.

In discussing the requirements for preserving "monetary equilibrium" (that is, equality between the nominal quantities supplied and demanded of money balances, or equivalently between the real stock and real quantity demanded) it is important to distinguish between short-run and long-run implications of changes in the demand schedule for money or in the stock of money. In the long run, nominal prices will adjust to equate supply and demand for money balances, whatever the nominal quantity of money.[25] It does not follow, however, that each and every *change* in the supply of or demand for money will lead *at once* to a new long-run equilibrium, because the required price adjustments take time. They take time because not all agents are instantly and perfectly aware of changes in the money stock or money demand, and because some prices are costly to adjust and therefore "sticky." It follows that, in the short run (empirically, think "for a number of months"), less than fully anticipated changes to the supply of or demand for money can give rise to monetary disequilibrium. The quantity of money supplied may exceed the quantity demanded, in which case prices need generally to rise; or the quantity of money demand may exceed the quantity supplied, in which case prices need to fall (Yeager 1986).

Such states of monetary disequilibrium, although temporary, may involve serious misallocations of resources. In addition to involving prices that are *generally* "too low" or "too high" (for equilibrium in money holding), they also typically involve

distortions of *relative* prices, most importantly (we learn from the Austrian business cycle theory) the rate of interest. Following Wicksell, the Austrian theory holds that an unanticipated injection of money (or rise in the "velocity" of money) can drive the interest rate in the short run below its equilibrium ("natural") level, and thereby encourage unwarranted investments. Correspondingly, an unanticipated destruction of money (or drop in "velocity") can drive the interest rate in the short run above its natural level, and thereby artificially curtail warranted investments.

Some economists deny the importance or even the conceptual coherence of short-run monetary disequilibrium as sketched above. New-Classical theorists do so, with a certain internal consistency, because they subscribe to a Walrasian model implying instantaneous and complete price adjustment. Some Austrians do so, with a regrettable *in*consistency, when they recognize the destructive consequences of price inflation driven by monetary expansion, but nonetheless try to argue that price *deflation* is always okay, in any amount. It is inconsistent to apply short-run, Wicksellian, disequilibrium analysis when talking about increases in the stock of money and price inflation, and then switch exclusively to a long-run, Humean, equilibrium-always analysis when talking about increases in money demand and deflation.

We aspire to be consistent Wicksellians, and so regard both price inflation and deflation as regrettable processes *insofar as they are brought about by arbitrary changes in the nominal quantity of money, or by uncompensated changes in its velocity, and not by changes in the real availability of final goods or the cost of production of money* (Selgin 1990, 1995; White 1990). It is therefore an attractive feature of free banking with fractional reserves that the nominal quantity of bank-issued money tends to adjust so as to offset changes in the velocity of money (Selgin and White 1994, p. 1725). Free banking thus works against short-run monetary disequilibrium and its business cycle consequences.

The argument for the equilibrating properties of free banking rests in part on recognizing that an increased demand to hold claims on intermediaries, including claims in the form of banknotes and demand deposits, at the expense of holding additional consumer goods, is equivalent to an increase in desired saving. Hoppe (p. 72) disagrees, labeling this analysis a "confusion." He declares that

> it is plainly false to say that the holding of money, i.e., the act of not spending it, is equivalent to saving. One might as well say—and this would be equally wrong—that the not-spending of money is equivalent to *not*-saving. In fact, saving is not-consuming, and the demand for money has nothing to do with saving *or* not-saving.

We submit that the confusion is Hoppe's, not ours. The above-quoted passage identifies saving as not-consuming, which taken literally means that saving is any disposition of wealth other than for present consumption. Elsewhere (p. 50) Hoppe correctly observes that money "is demanded as a medium of exchange—rather than for consumption or production purposes," that is, that money-holding is a form of not-consuming. Together these statements contradict his claim that holding money is not a form of saving.

Hoppe's position is that saving is an expression of time preference, but money-holding is not. Thus to save is to *defer* consumption, and because the holding of money does not signal a definite decision to defer consumption (unlike the purchase of a bond or a capital good), it is not a form of saving.[26] We agree that time preference and money demand are distinct, and that a change in one does not imply a change in the other. Nonetheless, to hold money *is* to hold it for *later* spending, even though *how much later* is not signalled (and typically has not yet been decided by the money-holder). Holding money for later spending, rather than spending it on consumption *now*, does defer consumption to the future. As Hoppe (pp. 72–3) himself points out, the demand for cash stems from the convenience it allows one in purchasing "consumer or producer goods at uncertain *future* dates" (emphasis added). So perhaps our disagreement here is merely over words.

The substantive question Hoppe raises is whether, as he asserts, "*any* injection of fiduciary credit must result in a boom-bust cycle." We deny that an increase in fiduciary media *matched by an increased demand to hold fiduciary media* is disequilibrating or sets in motion the Austrian business cycle. The act of holding fractional-reserve *bank-issued* money not only (like holding base money) defers consumption for a longer or shorter period, but also *temporarily lends funds* to the bank of issue in so doing. The period of the loan is unspecified—a demand deposit or banknote can be redeemed at any time, though only a fraction are in fact

redeemed on any day—but if the bank can estimate with a fair degree of accuracy the lengths of time for which its demand claims will remain in circulation (the statistical distribution of their times to actual redemption), it can safely make investments of corresponding length.[27] As Mises (1980, p. 362) wrote with respect to the related problem of estimating the volume of demand for a bank's fiduciary media, the banker here "has to rely upon an uncertain empirical procedure which may easily lead to mistakes. Nevertheless, prudent and experienced bank directors—and most bank directors are prudent and experienced—usually manage pretty well with it."

De Soto (1995, p. 32) asserts that fractional-reserve free banking "must inexorably, sooner or later, lead to uncontrolled expansion in the monetary supply," and claims Mises's authority for this view. Mises (1966, p. 443) actually, and we believe quite correctly, held a very different view:

> Free banking is the only method for the prevention of the dangers inherent in credit expansion. It would, it is true, not hinder a slow credit expansion, kept within very narrow limits, on the part of cautious banks which provide the public with all the information required about their financial status. But under free banking it would have been impossible for credit expansion with all its inevitable consequences to have developed into a regular—one is tempted to say normal—feature of the economic system. Only free banking would have rendered the market economy secure against crises and depressions.

Hoppe misunderstands Selgin's argument when he characterizes it as jumping from the view that the holding of money represents savings to the conclusion that "an increased demand for money [is] the same thing as increased saving." That holding money is one form of saving does not imply that an increase in the demand for money is identically an increase in total saving. An increased demand for money may accompany a reduced demand for holding other assets, and not a reduction in consumption; hence it may be part of a change in the manner of saving with no change in total savings. If, for example, the public's demand for bank deposits increases at the expense of the public's demand for bonds, holding constant the rate of time preference (or, alternatively put, holding constant the planned

and expected time-profile of consumption),[28] there will be no change in "the" natural rate of interest, viewed as a composite of interest rates on all financial assets. Expansion of the volume of deposits is nonetheless warranted in this case. Assuming rising marginal costs of intermediation, the equilibrium rate of interest on bank deposits will have fallen, while the rate on bonds will have increased. The increased demand for intermediation raises the "price of intermediation" represented by the spread between the deposit and bond rates. Banks are warranted in expanding their balance sheets to meet the increased demand for deposits, until the actual deposit rate falls to the new equilibrium deposit rate. (Meanwhile, the market value of existing bonds falls *pari passu* with the increase in the bond interest rate.)

An increase in *savings* is neither necessary nor sufficient to warrant an increase in fiduciary media. An increased demand for "cash" (Hoppe, p. 73) does not warrant an increase in fiduciary media or inside money, assuming that "cash" is used to mean *high-powered* or *outside* money such as gold coins (as opposed to low-powered, competitively-issued banknotes). It is specifically an increased demand to hold "balances of inside money" (Selgin's words, quoted by Hoppe) that warrants an increase in the quantity of inside (bank-issued) money. A banking system that accommodates an increased real demand to hold its demand liabilities by expanding their quantity does nothing to drive market interest rates away from their natural values, spur excessive investment, or set in motion a boom-bust cycle.

We can put this point another way. Consider the case in which the public increases its desire to save, due to a drop in time preference, and people elect to forego some current consumption spending out of their income in order to build up their holdings of *time* deposits issued by banks. We imagine that no Austrian will object that it is dangerous to allow the banking system to accommodate this shift. The natural rate of interest has fallen. The public correspondingly bids down the interest rate on time deposits, and by lending their extra deposits banks bid down the interest rate on loans, so the market rates correctly track the natural rates.

Now consider the case where the public increases its desire to save, due to a drop in time preference, and people elect to forego some current consumption spending out of their income in order to build up their holdings of interest-bearing *demand* deposits issued by banks. We submit that it is no more dangerous, or disequilibrating, or cycle-inducing, to allow the

banking system to accommodate *this* shift.[29] It would, instead, be disequilibrating and unfortunate if the banking system were *not* to respond. The velocity of bank-issued money (the ratio of dollars spent per year to dollars held) has fallen. If the banking system fails to increase the quantity of bank-issued money and the price level does not promptly drop, an excess demand for money arises (assuming also that the quantity of base money does not immediately increase). A corresponding excess supply of goods arises: unsold consumer goods pile up on sellers' shelves (this is of course what proximately puts downward pressure on prices, until at last goods prices have fallen sufficiently). Business is depressed until the purchasing power of money gets back to equilibrium. By failing to increase the quantity of deposits, the banking system also fails to bid down the interest rate on deposits and loans. The natural rate of interest has fallen, but market interest rates temporarily stay put. Investment does not increase to match the increased desire to save, and the structure of production does not adapt as it should to match the drop in time preference.

Conclusion

Fiduciary media are not fiat money. A monetary system with a commodity standard, competitive banking, and the freedom to use fiduciary media among consenting transactors is consistent with justice, efficiency, and economic stability. It is preferable on these scores both to a system (like today's) where the law has forced money-users to give up gold and gold-redeemable fiduciary media in favor of fiat money, and to a system (like those proposed by 100-percent-reserve advocates) where the law restricts money-users from holding any or some types of fiduciary media.

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[1] With apologies to Devo, the '80s rock band who used the slogan "Are We Not Men? We Are Devo!"

[2] This essay is reprinted in White (1989), a book Hoppe cites.

[3] Selgin's paper was available at the time Hoppe wrote, having been presented at a Mises Institute conference which he attended in 1992.

[4] Perhaps his view is that, even when in practice a fractional-reserve bank for years fulfills every redemption request that actually comes to it, nonetheless its notes should *really* be considered irredeemable because the bank *would* default if all its notes and demand deposits were presented for redemption simultaneously. And for the same reason Hoppe may view the title conveyed by a banknote's contractual pledge that the bank "will pay to the bearer on demand" as not *genuinely* a title at all.

[5] Redeemable bank liabilities are not fiat money even if the (fractional) bank reserves themselves consist of fiat money. In Misesian terms, a bank-issued medium of exchange is a "money substitute," i.e., a substitute for money proper (either for fiat or for commodity money).

[6] To be precise, we mean the quantity measured in units of account, holding the definition of the unit of account constant.

[7] A more standard definition of fraud confines it to a *willful* or *deliberate* deception for purposes of gain. Thus an unintended failure to meet the terms of an agreed transfer due to unexpected circumstances beyond the party's control, would constitute a breach of contract, but not a fraud. Nothing herein turns on this distinction, though.

[8] Whether it is fraudulent to hold fractional reserves against a bank liability does not depend *per se* on whether it is a demand or time liability, but only on whether the bank has misrepresented itself as holding 100 percent reserves. The demandability of a particular claim issued by a bank, i.e., the holder's contractual option to redeem it at any time, is not *per se* a representation that the bank is holding 100 percent reserves against the total of its demandable claims. Rothbard (1990, pp. 49–50) argues otherwise, based on the view that a bank's demand deposits and notes are necessarily "warehouse receipts" and not debts. We do not see why bank and customer cannot contractually agree to make them debts and not warehouse receipts, and we believe that historically they have so agreed.

[9] Hoppe would also have the bank inform its borrowers that their loans can be recalled at any time. On this odd suggestion see footnote 13 below.

[10] Checkland (1975, p. 67) provides a specimen of an optional note issued by the Royal Bank of Scotland. The face of the note reads, in fairly large print (occupying practically the entire face), "The Royal Bank of Scotland . . . is hereby obliged to pay to [name] Or the Bearer, One Pound Sterling on demand Or, in the Option of the Directors, One pound Six pence Sterling at the End of Six Months after the day of the demand & for ascertaining the demand & Option of the Directors, the Accomptant & One of the Tellers of the Bank are hereby ordered to Mark & Sign this Note on the back of the same." The Bank of Scotland, also known as "the Old Bank," introduced the option clause in 1730. Checkland (1975, p. 68) comments that "The adoption of the clause does not seem to have impaired the Old Bank's note issue." The public presumably realized that the bank would try to avoid having to invoke the option to defer redemption, both for reputational reasons and because the bank would then, under the terms of the clause, have to pay interest on its notes. The bank did not in fact invoke the option until 1762. Option clauses were outlawed in 1765.

[11] It is in this connection, and not in connection with the "fraud" issue, contrary to Hoppe's account of our argument

(1994, p. 71), that we consider the option clause important. But we can see that from Hoppe's viewpoint the clause also eliminates the charge of fraud, since the bank is no longer promising *unconditionally* to redeem its claims on demand, and therefore the total of its *unconditionally* demandable claims no longer exceeds its reserves.

[12] Economists conventionally distinguish a "pecuniary externality," an effect on someone's wealth transmitted via the price system, from a "technological externality," a physical or otherwise direct interference with someone's consumption or production. The first is an interdependence through the market; the second is an interaction outside the market.

De Soto (1995, p. 33) fails to grasp this distinction when he mischaracterizes the pecuniary externality from fiduciary media as a "tragedy of the commons," a term that properly applies only to a particular sort of technological externality.

[13] In one passage Hoppe (p. 70) remarks that fractional-reserve banks did not "inform that some or all of the credit granted to them had been created out of thin air and was subject to being recalled at any time," and he proposes that a non-fraudulent fractional-reserve bank would have to warn borrowers "that their loans may be instantly recalled." Perhaps Hoppe believes that fractional-reserve banks typically have a secret right to recall their loans at any time, and perhaps this underlies his belief that their loans make the credit structure riskier. But we are baffled as to where he might have gotten such an unfounded idea. Fractional-reserve banks do not have the option to call in loans except where the option is explicitly specified in the loan contract. When a loan is callable the call provision is thus no secret to the borrower. Historically, call loans have been a very small share of all bank loans.

We also reject the notion, expressed in the passage quoted above, that *competitive* banks issuing redeemable liabilities can create credit "out of thin air." By the nature of the balance sheet, all bank loans must be funded by liabilities or equity. Neither source of funds can be conjured out of thin air. No one is forced to hold a competitive bank's redeemable liabilities or to buy its shares; anyone can hold claims on other banks instead, or on no bank. A competitive bank must therefore *expend real resources to attract a clientele* by the provision of interest and services. The notion that a bank can extend credit costlessly or gratuitously is valid only with respect to the inframarginal credits of a monopoly bank, or to an issuer of a forced tender; it does not

apply to a bank in a competitive system (see Mises 1980, pp. 346–7).

[14] Likewise de Soto (1995, p. 31), who regards the 100 percent reserve custodial deposit as a form consecrated by the Roman Law tradition, and who would (it seems) deny transactors the freedom to make alternative (non-traditional) demand deposit contracts, does at least recognize that modern banks have been "open" about holding fractional reserves.

[15] Given his recognition that competitive fractional-reserve banks pass loan revenues on to depositors in the form of interest on demand deposits, we are baffled as to how Hoppe (p. 66) can—in the immediately preceding sentence, no less—claim that fractional-reserve banking "leads to a unilateral income redistribution in the bank's favor."

[16] It is true that a bank that mixes a time deposit business with its (100 percent reserve) demand-liability business might become insolvent, and might therefore be runnable even without any absconding. But depositors who really want 100 percent-reserve bailment contracts receive no apparent advantage from such a mixture, and they should learn over time to avoid riskier mixed institutions in favor of pure warehouse banks. If such depositors were common the market would enforce the "strict functional separation of loan and deposit banking" that Hoppe (p. 74) wishes to see. With such a separation, the mere fact that a bank offers loans is a clear tip-off that it is not a 100-percent-reserve institution.

[17] Some writings suggest that this occurred with the Bank of Amsterdam (Hildreth 1968, p. 12, is a bit vague). But the details behind this story, as presented in Van Dillen (1934), are rather more complicated. First of all, the Bank of Amsterdam was not expressly forbidden to make loans until 1802, and, although it kept close to 100 percent reserves throughout much of its existence, there were long periods (e.g., 1723–1761) when its reserves fell substantially below its deposit balances, the difference consisting of loans made to the East India Company and to the Amsterdam Treasury. The decline in the Bank's reputation in the mid-1780s appeared to reflect not a sudden realization that it held less than 100 percent reserves, but an understandable concern that some exceptionally large loans it had made in the course of the fourth war between the Dutch Republic and England (1780–1784) had gone sour.

[18] The notes of New York State "free banks" even announced on their faces that they were "secured by the pledge

of public stocks," a clear indication that the notes were backed by something *other* than 100 percent reserves. This inscription was, however, required by law (Hildreth 1968, p. 202).

[19] Picture a television spot showing a gleaming vault filled with cash. An authoritative voice-over announces: "Here at the Solid Gold Warehouse Bank, your deposit is backed with genuine 100 percent reserves. *All* your money stays here waiting for you *all the time*. We're not like those *other* banks [camera pulls back to show an adjacent vault which is empty, with moths flying about inside] that try to get by on (gasp!) *fractional reserves*."

[20] It might be said that most people would rather "put their money where the moths are."

[21] For an extended secondary account of Mises's defenses of fractional-reserve banking, see White (1992).

[22] Rothbard (1990, p. 34) argues that gold mining is not socially wasteful, even though an increased supply of gold does not confer any monetary benefit, because gold is a useful commodity for making jewelry, filling teeth, and so on. But the question of social waste from imposing a binding 100-percent-gold-reserve requirement on banks does not concern the cost of mining gold for *non*-monetary uses. It concerns the cost of mining that *portion* of the gold supply destined for bank vaults, over and above the amount of gold banks would acquire if free to choose their own reserve ratios.

[23] In practice, the relative price of gold has risen since the scuttling of the gold standard, because few central banks have sold off their gold reserves and because the public has understandably accumulated gold as an inflation hedge. See Garrison (1985).

[24] Our writings on cycles and crises include Selgin (1989; 1992; 1993) and White (1984, pp. 18–19, 44–9, 53, 103–12; 1993). Hoppe's claim that White "nowhere even mentions the problem of business cycles" is easily shown to be false. Even a cursory glance at the index of the only work of White's that Hoppe cites reveals several mentions of the problem of business cycles (White 1989, pp. 6, 77, 81–4, 142, 159). White (1992, esp. pp. 524–26 and 532, n. 29) directly addresses Mises's view of banking and the business cycle, including the "Austrian-Misesian claim that *any* injection of fiduciary credit must result in a boom-bust cycle" that is the jumping-off point for Hoppe's economic critique of free banking. It should be noted that Mises did *not* share Hayek's view (see White 1995) that fractional-reserve

commercial banks, unprompted by central bank policy, can be expected to over-expand and thereby to generate business cycles repeatedly.

[25] Hoppe (p. 65 n. 19) appropriately refers to this as an "old—Humean—insight."

[26] Thus Hoppe (p. 72) emphasizes that to hold money "is to purchase neither consumer goods *nor* investment goods."

[27] Thus interest-bearing demand deposits are not inconsistent with sound banking.

[28] It may be that this *ceteris paribus* condition is seldom met in practice. It may be that a shift from bonds to money is usually joined to a change in time preference, i.e., is usually accompanied by a shift toward the present (or toward the future) in the planned time-profile of consumption. Nonetheless these shifts are conceptually distinct. The *ceteris paribus* assumption allows us to analyze their effects separately.

[29] But how can the banks manage to expand their demand deposits, if total bank reserves have not changed? The increased demand to *hold* demand deposits, relative to income, means that fewer checks are written per year per dollar of account balances. The marginal deposit dollar poses less of a threat to a bank's reserves. Thus a bank can safely increase its ratio of deposits to reserves, increasing the volume of its deposits to the point where the rising liquidity cost plus interest and other costs of the last dollar of deposits again equals the marginal revenue from a dollar of assets (Selgin 1994b).

Central Banking, Free Banking, and Financial Crises

Roger W. Garrison

A growing literature explores the concept of free banking on both a theoretical and an historical basis. George Selgin (1988) sets out the theory of free banking and makes a compelling case that, despite the uniqueness of money, the forces of supply and demand are more conducive to monetary stability, correctly understood, than are the edicts of a central bank. Larry White (1984), focusing on the free-banking episode in nineteenth-century Scotland, and Kevin Dowd (1994), collecting studies of experience with free banking in many countries and time periods, have shown that this alternative to central banking has a respectable history.

The aim of this paper is to get a fix on the possible and currently relevant sources of macroeconomic instabilities in the economy and to identify the most promising banking arrangements for dealing with those instabilities. Possible maladies and remedies can be considered in the context of competing schools of macroeconomic and monetary thought. Attention is directed to the issue of whether the perceived problem and/or its solution is inherent in the market economy or lies outside the market process. This formulation immediately gives rise to a two-by-two matrix with maladies and remedies represented in one dimension, market forces and extramarket forces represented in the other. The fruitfulness of this approach is demonstrated by its ability to sort out competing schools of thought, put current debate in perspective, and assess the prospects for a stable macroeconomy—with the Federal Reserve as currently constituted and with the alternative institution of free banking.

This exercise in comparative-institutions analysis does not deal with the dynamics of the macroeconomy in transition between one set of monetary institutions and another or with the political issues of just how such a transition might be brought about. Nor does it deal directly with the ultimate nature of the monetary standard. There is a strong presumption, however, that only a central bank can preempt a commodity standard with its

own fiat money and that banknotes issued by competing banks in a free-banking system would have to be redeemable in some real commodity, such as gold, to make them acceptable in a market where banknote holders can easily express their preferences among issuers. There is broad agreement among Austrian-oriented writers that a banking system characterized by (1) central direction and (2) fractional reserve is not conducive to economic stability. However, there is some disagreement among the Austrians as to which of the two mentioned characteristics is fundamentally responsible for the instability. The argument in this paper follows Ludwig von Mises, as portrayed by White (1992), and takes the centralization of the current banking system to be the most fundamental issue and the most appropriate focus for prescribing reform.

The Equation of Exchange

Underlying all theories of money and banking—as well as all prescriptions of policy and recommendations for reform—is the familiar equation of exchange: $MV = PQ$. For the economy as a whole, buying must equal selling, where buying is represented by the total supply M of money times the frequency (the circulation velocity V) with which each monetary unit on average is spent and where selling is represented by the average price P of goods times the total quantity Q of goods sold. Although true by construction, the equation of exchange helps us to keep in view the interdependencies that characterize the macroeconomy. It is impossible, for instance, to conceive of a change in only one of the four magnitudes represented in the equation of exchange. Any one change implies some offsetting change or changes on one side or the other of the equation—or possibly on both sides. For instance, a decrease in money's circulation velocity, which simply reflects an increase in the demand for money, must be accompanied by (1) an increase in the money supply, (2) a decrease in prices, or (3) a decrease in real output sold (or by some combination thereof).

The equation also facilitates the comparison of competing schools of thought. Considering in sequence Keynesianism and Early and Late Monetarism can provide a basis for setting out the distinctive perspective that emerges from the theory of free banking.[1] The case against central banking and in favor of free banking, then, is preceded by some history of thought—possibly more than some may think justified. The comparison of schools

of thought is included for two reasons. First, some writers have recently gotten it wrong, presenting monetarist ideas under the Keynesian label. Second, the case for free banking contains arguments that are sufficiently close to Keynes's own that they need to be distinguished explicitly from his.

Keynes believed that the economy is chronically unstable because of instabilities associated with both Q and V. Goods, in the Keynesian construction, are decomposed into consumption goods C and investment goods I, the latter being inherently unstable in view of the pervasive uncertainty faced by the business community—the "dark forces of time and ignorance that envelop our future" (Keynes, 1936, p. 155). The strength of the investment sector, according to Keynes, is highly dependent on psychological factors—"animal spirits" (pp. 161–62) that motivate each (and, through contagion, all) of the economy's investors. The occasional waxing and waning of the animal spirits affect I—and affect C as decisions in the business community govern incomes and hence spending. Both directly and derivatively, then, the uncertainty of the future translates into fluctuations in the economy's output magnitude Q.

The equation of exchange reminds us that changes in Q cannot be the whole story. If prices and wages are sticky and the money supply is wholly determined by the monetary authority, the rest of the story must center on money's circulation velocity V. What Keynes called the "fetish of liquidity" is, in this view, nothing but another perspective on the waning of "animal spirits." Would-be investors abstain from committing themselves to investment projects, whose profitability is uncertain, and instead hold their wealth liquid.

The economy, according to Keynes, is prone to periodic collapse. Pervasive uncertainty inherent in investment activity and prospects of economic disaster occasionally overwhelm the business community. Entrepreneurs cease their individual attempts to outguess one another and begin collectively to guess against the economy. In droves, they forego real assets in favor of liquidity. Q falls, and along with it, V. Liquidity, or money (Keynes used the terms synonymously), constitutes something of a "time out" for the entrepreneur/speculator—somewhat analogous to rest areas along an interstate highway. Fog on the highway or the wearing effects of traffic congestion can make the rest areas increasingly attractive.

The origin and essence of the problem, in the Keynesian view, is to be found on the righthand side of the equation of

exchange (a decreased Q). Keynes works on both sides of the equation, however, in devising possible solutions to the problem. For instance, much of Keynes's discussion of monetary reform, which included support in principle for Silvio Gesell's stamped money as well as for taxing transactions in securities markets, was aimed at making the time-out option—the option of getting or staying liquid—more costly. Keynes favored all attempts to deprive money of its liquidity value only to lament that investors would find other assets (e.g., gems and precious metals) that could provide refuge from the uncertain future (Keynes 1936, pp. 353–58).

Reforms in this direction are analogous to installing toll gates at the rest areas—or possibly eliminating rest areas altogether. Travelers would make better time between New Orleans and Atlanta if there were no possibility of stopping along the way. Keynes did not consider that some would-be travelers might not depart New Orleans in the direction of Atlanta under such conditions; he did lament that closing or charging for rest areas might cause travelers to find other places to stop along the highway.

In lieu of prevention in the form of making liquidity less attractive or more costly, Keynes recommended monetary policy to accommodate the demand for liquidity—satiating that demand if necessary to keep money from competing with real investments in the collective mind of the business community. To the extent that money-demand entails a large psychological element, the rest-area analogy holds. A road sign that reads "LAST REST AREA FOR NEXT 100 MILES" may attract many customers, whereas the travelers may stop very infrequently if there were rest areas all along the way.

While increasing the supply of money to neutralize the effects of a fetishistic demand for liquidity may be a necessary component of policy prescription, it will not be sufficient, according to Keynes, to restore conditions of prosperity. This is only to say that a decreased V is a symptom rather than the essence of the problem. The solution must involve the substitution of government spending for private investment spending—accommodated, of course, by money creation. Fiscal stimulation prods the reluctant travelers along the economic highway. Keynes viewed fiscal policy as primary; monetary policy as secondary.

In the Keynesian view, then, the malady is inherent in the market; the remedy entails extramarket forces. It is in the very

nature of things that our weary travelers will, on occasion, follow one another into the increasingly overcrowded rest areas, where each traveler is reluctant to resume the journey alone. Restoring and maintaining stability requires intervening forces in a double-barreled way; the interveners must work simultaneously on both sides of the equation of exchange. Monetary reform and fiscal stimulation are intended to keep the travelers out of the rest areas and to keep them moving along smartly. Central banking is essential for the task. But ultimately, Keynes (1936, p. 378) called for a wholesale replacement of our current system with a system of public transportation: A comprehensive socialization of investment is offered as the only solution to the problem of unemployment.

Early monetarism, as exposited by Clark Warburton (1966) in the 1940s and 1950s and as revived in recent years by Leland Yeager (1986), has a kinship to the equation-of-exchange perspective on the Keynesian view. Both schools perceive a possible malady and remedy that fit into the two-by-two matrix in the same way: Market malady; extramarket remedy. They differ radically, however, in terms of the specific nature of the problem and the implied judgment about the efficacy of the market economy. Market participants may opt for more money in preference to more real output—where the relevant alternatives to holding money are both investment goods and consumption goods. The demand for money is not fetishistic, and changes in it are not necessarily contagious, but money demand can and does change. The velocity of money is not constant in the same way that Planck's constant and Avogadro's number are.[2]

With a given money supply, increases in the demand for money put downward pressure on prices.[3] Except in the fanciful case in which prices adjust fully and instantaneously to this monetary disturbance, the adjustment process involves quantities as well as prices. Our highway travelers are trying to stop and rest even in the absence of adequate rest areas. The unintended consequence is a general slowdown of traffic. A decreased V impinges on Q as well as on P—even if the ultimate, or long-run consequence is a proportionate decrease in P. In principle, a monetary policy that succeeds in relieving downward pressure on prices by meeting every increased demand for money with an increased supply will result in greater stability for the economy as a whole. A constant P becomes, in this view, the essence of monetary stability. The problem (decreased V) and solution (increase M) are set out in precisely this way by Paul

Krugman (1993, p. 26–28 and *passim*)—but with this view offered as Keynes's understanding of the nature of business cycles! Early Monetarism is wrongly attributed to Keynes. [4]

Early and Late Monetarists share an analytical framework as well as a basic judgment about the central bank's capacity to do good and to do harm. It was Milton Friedman, of course, who shifted the focus of attention away from problems of monetary disequilibrium to the general relationship between M and P that endures over space and time. Empirical studies using data from many different economies and many different time periods lent support to the proposition that changes in the lefthand side of the equation of exchange are overwhelmingly attributable to changes in the quantity of money. Study after study demonstrating the stability of money demand (a near-constant V) had the effect of focusing attention on the money supply M as a basis for accounting for both inflation and deflation. Changes in the money supply are much more likely to be a problem than to be a solution to a problem. Empirical and theoretical considerations, as well as considerations from political economy, underlay this summary judgment. Under typical conditions, in which money demand remains relatively constant, there is a "long and variable lag" that separates changes in the money supply and the subsequent changes in the price level. This empirical fact, coupled with the lack of any timely and unambiguous indicator of actual changes in the demand for money, weighs against the prospects for even well-intentioned money-supply management having a stabilizing effect on the macroeconomy. Dimming the prospects still further, of course, is the fact that the central bank may intend to do more than act as a stabilizing agent and that some of its intentions, such as dealing narrowly in alternating episodes with the problems of inflation and unemployment and with problems associated with the strength or weakness of the dollar in international markets, are antithetical to the idea of a central bank as macroeconomic stabilizer.

We can locate Monetarism in our two-by-two matrix by noting that both malady and remedy are in the extramarket category. In fact, Monetarism consists, by and large, of (1) the recognition that the central bank is a destabilizing force and (2) the recommendation that it *not* be a destabilizing force. Adherence to a monetary rule according to which the money supply is increased at a slow, steady, and preannounced rate is likely to engender more macroeconomic stability than central

bank activism can achieve—no matter how well-intentioned and expertly conceived. Actual experience both before and after the heyday of Monetarism suggests that the same understanding that gives rise to Monetarists' view of the central bank also accounts for the central bank's inability and unwillingness actually to adopt and abide by a monetary rule. The so-called Monetarist experiment begun in October of 1979 under the chairmanship of Paul Volcker, for instance, was Monetarist only in a limited and perverse sense. The Federal Reserve did shift its attention from interest rates to monetary aggregates, a move that would be preliminary to actually adopting a rule for monetary growth. But its policies following this shift made for even greater variation in the money supply (and in the rate of interest) creating significantly greater macroeconomic instability than had been experienced before. Ultimately, a monetary rule, however widely and forcefully recommended, is at odds with the even more widely perceived view that the Federal Reserve Chairman is the second most powerful individual in the country.

Free Banking

The basic case for free banking is the general case for decentralization of economic activity. The uniqueness of money does not immunize it against the forces of supply and demand and does not make the invisible hand of the marketplace any less beneficial to society. Quite to the contrary, our rest-area analogy suggests that market forces have special advantages in adjusting money supply to money demand. While the market cannot respond on a daily basis, supplying rest areas anywhere along the highway that they happen to be demanded by today's travelers, free banking can and automatically would supply liquidity along the economic highway anytime and anywhere it is demanded. The case for decentralization is strengthened by comparing free-banking dynamics to central-bank policies that we have actually experienced and even to the policies of an idealized non-politicized central bank whose sole objective is that of maintaining macroeconomic stability. A comparison favoring free banking follows from two propositions. First, the failure in fact of the central bank to adopt a monetary rule (and the unlikelihood of its adopting such a rule in the future) weighs in favor of decentralization. What the Federal Reserve lacks the will and ability to do can be done automatically by the impersonal forces of supply and demand governing banknote issue. Second,

the difference between the implicit rule that the decentralized banking system follows and the simple monetary rule of slow and steady growth of the money supply gives free banking higher marks as a stabilizing force in the economy. In the final analysis, the simplicity of the monetary rule derives from the judgment that discretionary moves are more likely to destabilize than to stabilize. The monetary rule is imposed, then, in the spirit of the unspoken maxim of yesteryear's medical profession: "Maintain good bedside manners, and strive to do no harm."

Free banking automatically discriminates between real disturbances and monetary disturbances, reacting only to the latter (Selgin 1988, pp. 64–69). The "automaticity" implies both a timeliness and an absence of political pressure—features that are forever denied to central banking. Under steady-state conditions in which the economy is experiencing no growth and no changes in the demand for money, the simple monetary rule and the implicit free-banking rule are the same: zero growth in the money supply. The consequences are also the same: a constant price level. Under more typical conditions of some positive rate of real economic growth and some variability in the demand for money, the two rules differ. The simple monetary rule is based on a long-range estimate of secular growth and of secular movement in money demand. An estimated growth rate of 3 percent and an estimated upward trend in money demand (downward trend in velocity) of 2 percent translate into a money growth rate of 5 percent. Strict compliance with the rule would mean that movements in the price level would exhibit no long-run trend. Actual deviations from trend in either output or in velocity, however, would result in upward or downward pressure on the general level of prices. Accordingly, the rule itself might be adjusted to allow for the differential harmfulness of inflation and deflation. Ingrained notions that prices and wages are stickier downwards than upwards and that unemployment bites harder into economic prosperity than does inflation may justify —narrow political motives aside—a rule of increasing the money supply at some rate slightly in excess of 5 percent. A mild inflation might be considered cheap insurance against any actual deflation.[5]

The implicit rule automatically implemented by free banking is the old central-bank maxim (usually observed in the breach): "Print money to hold but not money to spend." If the holders of banknotes issued by a particular bank are willing to hold still more, it is in the interests of the bank to increase its issue. The

fact that the bank's customers are holding rather than spending implies the absence of inflationary pressures. In this context, the bank need not even consider whether the increased demand for its own notes is a general increase in the demand for money or an increase in the demand for its banknotes relative to the demand for other banknotes. However, if an individual bank increases its issue even in the absence of any increase in demand to hold its banknotes, then the extra spending of them will soon impinge on the bank's reserves. The sustainable level of note issue is demand-determined. In a decentralized and competitive environment, each individual bank can be expected to forego the short-term gains that overissuing its own banknotes might entail in order to avoid the long-term losses that the market process would inevitably impose.

In contrast to the simple monetary rule, which is devised to accommodate real economic growth by checking deflationary pressures whatever their source, the implicit free-banking rule involves no change in the money supply in response to a change in real output. This difference in the two rules reflects the automatic discrimination, inherent in free banking, between real and monetary disturbances. An increase in the demand for money puts downward pressure on product and factor prices in general. If there were no money-supply response, a general decline in economic activity would follow, since prices and wages could not fully and instantaneously adjust themselves to the new market conditions. Goods in general would go unsold; production would be cut; workers would be laid off. Such quantity effects can be self aggravating, as the Early Monetarists emphasized. With a less-than-perfectly flexible price system, general deflationary pressures can push the economy below its potential during the period in which prices are adjusting to the higher monetary demand. And the fact that some prices and some wages are more flexible than others means that the adjustment period will involve changes in relative prices that reflect no changes in relative scarcities. These are precisely the kinds of problems that are highlighted by modern monetary-disequilibrium theorists, e.g., Yeager (1986), and that are avoided by free banking's responsiveness to increases in money demand.

Suppose, however, that with an unchanging demand for money, the economy experiences economic growth. Despite the implications of the familiar neoclassical growth models, the economy's output does not undergo a general change; there is no

disembodied growth that might be explained in terms of an economywide technology shock. Rather, the outputs of various goods increase as a result of an increased availability of particular resources used in producing them or the discovery of a new technique that converts particular inputs into a particular output more efficiently. Downward pressure on the prices of the particular goods that account for the economy's growth will be felt primarily in the markets for those very goods. Relative prices adjust to reflect the fact that these goods are now more abundant. The market process at work here is the one that gets emphasis in the sophomore-level economics of supply and demand. Perversities that dominate in the context of an increase in money demand get little or no play in the context of economic growth. The increased Q, which simply reflects a positive net change in the sum of all the economy's individual qs, is accompanied by a decrease in the corresponding ps. It would be misleading here to evoke the fears of "deflationary pressures." The individual ps become adjusted to their corresponding qs on a market-by-market basis. The fact that this new constellation of ps average to a lower P than before has no special claim on our attention. There is no downward pressure on P over and above the forces of supply and demand that operate separately in the affected markets and reflect the underlying economic realities. There are no perversities inherent in this sort of a relative (and absolute) adjustment.

In terms of the equation of exchange, we can say that free banking adjusts M so as to offset changes in V; but allows changes in Q to be accommodated by changes in P. Economic growth does involve price deflation in a literal sense (the price level falls as output increases) but does not involve any macroeconomic malady that is commonly associated with the term "deflationary pressures." In effect, by distinguishing between malignant and benign deflation, free banking provides a much stronger check against inflation than that provided by the simple monetary rule.[6] It would be misleading to classify free banking in terms of malady and remedy because the malady never gets a chance to show itself. Significantly, though, there are no extramarket forces at work here either creating problems or fixing them.

Central Banking and the Debt Bomb

The case for a decentralized banking system, which by and large

parallels the case for markets and against central planning agents, is a strong one. The central bank cannot outdo free banking or even match its performance as a macroeconomic stabilizer. It lacks the ability to distinguish on a timely basis between movements in V and movements in Q, it lacks the incentives to act in ways that would promote stability, and as a key player in a political environment, it actually responds to incentives in ways that foster instability. None of these characteristics, however, is at odds with our understanding of the origins of the Federal Reserve System—especially as exposited by Rothbard (1994), whose story does not place great emphasis on the lofty goal of macroeconomic stabilization.

It is commonly understood, now, that the Federal Reserve accommodates the Treasury by monetizing the government's debt. That is, it injects credit markets with new money so as to relieve the upward pressure on interest rates that Treasury borrowing would otherwise entail. And with telling exceptions, the Federal Reserve maintains an easy-money policy in the year-and-a-half before each presidential election.[7] The so-called political business cycles have now become an integral part of the macroeconomic landscape. Further, the Federal Reserve is called upon to deal with other real or perceived problems having little to do with macroeconomic stability. It is expected, for instance, to lower interest rates when the housing market is in a slump and to strengthen or weaken the dollar in response to movements in exchange rates or trade flows. All these attempts to manipulate employment rates, interest rates, and exchange rates interfere with the Federal Reserve's ability to achieve and maintain macroeconomic stability or even to refrain from inducing instability. If the simple monetary rule fares poorly in comparison with the implicit rule of free banking, it fares well in comparison with the actual policies of the Federal Reserve.

These political factors are well recognized by modern Fedwatchers. Less well recognized are the cumulative effects of decades of deficit accommodation and macroeconomic manipulation. With federal indebtedness now measured in the trillions of dollars and increasing annually by hundreds of billions, the need for a stabilizing monetary system is all the more important. The debt bomb is not ignored by Wall Street. An explosive ending to this era of fiscal irresponsibility may or may not be in the making, but the bomb's incessant ticking has its own effect on the stability of securities markets.[8] A consideration of the actions of the Federal Reserve in recent

years aimed at dealing with so-called mini-crashes in the financial sector provides a further basis for assessing the prospects of centrally produced macroeconomic stability. From the narrow perspective of the financial sector the issues of malady and remedy look deceivingly like those identified by Keynes: market maladies and extramarket remedies. An activist central bank is seemingly justified by its indispensable role in taming an otherwise wild financial sector. But a fuller understanding of the situation suggests that it is an unbridled Treasury rather than unbridled capitalism that lies at the root of the economy's current problems. And it is the Federal Reserve—its very existence—that removed the bridle. On this understanding, the malady and remedy are both in the extramarket category, but the diagnosis and prescription are not as simple as the Monetarists would have us believe.

Increasingly, the significance of the Federal Reserve in the context of the macroeconomy derives from its ability to monetize government debt. This is not to say that the actual rate of debt monetization dominates the Federal Reserve's current agenda but rather that the very potential for debt monetization is taking on increasing significance. How has the federal government been able to get away with such a chronically and conspicuously large budgetary imbalance—and with no sign of meaningful fiscal reform—without subjecting itself to the substantial penalty imposed automatically by credit markets? Why is there no default-risk premium on Treasury bills? Excessive debt accumulated by individuals, corporations, or even municipalities is eventually dealt with when the borrowers lose their creditworthiness and face prohibitive rates of interest. This salutary aspect of the market process is short-circuited in the case of Treasury debt by the very existence of a central bank. The Federal Reserve in its standby capacity as a buyer of government debt keeps the default-risk premium off Treasury bills. The potential for debt monetization allows federal indebtedness to rise unchecked to levels that would have been thought fanciful only a few administrations back and to remain high and rising into the foreseeable future.

The *potential* for debt monetization, critical for maintaining an uneasy balance between economic and political reality, gives rise to speculation about the timing and extent of *actual* debt monetization. At issue here are prospective movements, possibly dramatic ones, in the inflation rate, interest rates, and exchange rates, which in turn can have dramatic effects in securities

markets. The attractiveness of securities can be differentially affected by the inflation that would result from actual debt monetization or by the movements in exchange rates that reflect the Treasury's greater or lesser reliance on foreign credit markets or by movements in interest rates brought about by changes in the Treasury's domestic borrowing. At some point, uncertainties about the timing and extent of debt monetization may dominate securities markets. In this case, the dense fog that drives our travelers off the economic highway and into the rest areas is not inherent in the market economy at all but rather is emitted by the Fed-backed Treasury.

It has become conventional wisdom in recent years that there is some link (though a poorly defined one) between chronically high budgetary deficits and instability of securities markets (Feldstein 1991, p. 8 and *passim*).[9] And it is taken for granted that it is the Federal Reserve's responsibility to deal with that instability, providing on a timely basis whatever liquidity is demanded so as to keep the occasional sharp declines of security prices, the mini-crashes, from affecting the performance of the macroeconomy. The implicit objective, here, seems to be that of building a firewall between the financial sector and the real economy, allowing both to lead their separate lives. Ironically, it is largely the existence of the Federal Reserve—its potential for debt monetization—that enables the Treasury to borrow almost limitlessly, thus creating the very instability that is to be kept in check by that same Federal Reserve.

Short-term success of the Federal Reserve in maintaining the firewall between the financial and real economy depends critically on the wisdom and credibility of the Federal Reserve Chairman. Prospects for longer-term success are problematic despite—or possibly because of—a sequence of short-term successes. Considerations of the nature of the Federal Reserve's role in the context of possibly volatile swings in the demand for liquidity suggest that continued central management of the economy's money supply does not offer the best hope for macroeconomic stability.

Suppose that the Treasury or the White House urges that the Federal Reserve become more accommodating and that the Federal Reserve Chairman expresses reluctance. Will the urgings get more intense? Will the reluctance fade? Speculation about the ultimate outcome will likely show up on Wall Street as an increased trading volume and an increased volatility of security prices. Traders who have little confidence in their own guesses

about a possible change in the Federal Reserve's policy stance are likely to get out of the market. Securities prices weaken as these traders begin to liquidate, causing others to follow suit. Now, even those traders who do have guesses about the Federal Reserve begin guessing instead about the market's reaction to the uncertainty. The scramble to get out of the market manifests itself as a liquidity crisis. Abstracting from the fact that this instability has its origins in extramarket forces, we notice that the nature of this destabilizing speculation is exactly as described by Keynes (1936, pp. 153–58).

In dealing with the liquidity crisis, the Federal Reserve is immediately pitted against itself. It must expand the money supply to accommodate the increased demands for liquidity—and by the right amount in a timely fashion—while maintaining its credibility that it will not expand the money supply in response to the urgings from the White House. Fedwatchers are going to need some tea leaves here to determine just exactly what the Federal Reserve is and is not doing. Once again, the equation of exchange provides a sound basis for sorting it all out. M is being increased to offset a downward movement in V. If the increase in M is too little, the net downward movement in MV will result in the dreaded deflationary pressures which will impinge only partly on P and hence partly on Q. The Federal Reserve's firewall is too weak; the liquidity crisis spills over into the real economy. If the increase in M is too great, then, willy-nilly, the Federal Reserve is succumbing to the urgings of the executive branch to further accommodate the Treasury's borrowing. The extent of the accommodation, as measured by the net upward movement in MV, will in time show up as inflation, which was one of the prospective eventualities that underlay the speculation and the liquidity crisis.

As complicated and convoluted as this reckoning is, it constitutes only half of the story. Removal of the liquidity from the financial market in a timely manner is as important as its timely injection, The failure of the Federal Reserve to move against an increasing V that characterizes the end of the liquidity crisis accommodates the Treasury and puts upward pressure on prices. Possibly more critical are the repercussions of the excess liquidity in international money markets. Overaccommodation can weaken the dollar. If this weakness is perceived as the beginning of a trend, the result may be heavy selling of dollars and dollar-denominated assets. Thus, a botched attempt to deal with a liquidity crisis can provoke a currency crisis. The Federal

Reserve must somehow defend the real economy against this double-edged sword.[10]

The Federal Reserve may be allowed some scope for error. The same difficulties that it faces in knowing just what to do and just when to do it provide a shroud of uncertainty, even after the fact, about just what it did—and all the more so about what it intended to do. But several considerations combine to suggest that, in the long run, the Federal Reserve is playing against high odds.

First, right or wrong, the financial markets will make their moves ahead of the Federal Reserve. Changes in the demand for liquidity and in the strength of the dollar are determined as much if not more by anticipations about what the Federal Reserve will do rather than what it has just done. This consideration is what gives great importance to the Chairman's credibility. And his credibility reflects more than his personal integrity and his reputation for reasonableness and consistency. It is affected as well by the economic constraints he faces and political pressures he feels.

Second, each episode will have characteristics of its own depending upon all the contemporaneous political and economic factors. Goals of the Federal Reserve over and above the particular goal of accommodating the Treasury serve as a background against which expectations are formed. The Federal Reserve may be pursuing a strategy of gradual monetary ease to promote more rapid economic growth and then subsequently a strategy of gradual monetary tightening to stave off inflationary pressures. It may be possible to maintain credibility while increasing the monetary aggregates at an accelerated rate in the first episode but not possible while reversing the direction of change (relative to trend-line monetary growth) in the second episode.

Third, even if the Federal Reserve generally wins its battles against liquidity crises, it will find that winning streaks are difficult to maintain indefinitely. And perversely, a sequence of wins can create a false sense of confidence on Wall Street that the Federal Reserve is always willing and able to deal effectively with liquidity crises. Such confidence might cause investors to maintain a generally lower level of liquidity in their portfolios than if they had serious doubts about the streak continuing. Lower liquidity levels generally can mean more dramatic increases in the demand for liquidity during a crisis. For the Federal Reserve, the winning streak gets increasingly more

difficult to maintain.

Temporarily and partially offsetting all these reasons for pessimism about prospects for enduring macroeconomic stability is the widespread belief that the particular individuals that have served as Federal Reserve Chairman are "geniuses." Dating from the summer of 1979 Paul Volcker and, after him, Alan Greenspan have risen to the occasion whenever crisis threatened. It may indeed be difficult to name two other individuals who could have done better. "Genius" might involve overstatement; "seasoned," "savvy," and "nimble," may be more to the point. But there is a greater point to be made here. Any governmental institution whose success depends critically on the caliber of the individual in charge cannot be considered a lasting source of stability for the economy. Even geniuses can err. More importantly, in some episodes where expectations turn pessimistic, the monetary ease needed to deal with a liquidity crisis may be more than enough to trigger a currency crisis. Foreign and domestic traders may leave no room for the Federal Reserve Chairman to exercise his genius. And further, geniuses are not necessarily succeeded by geniuses. Volcker served two four-year terms; Greenspan has begun his third term after an unsuspenseful reappointment in early 1996—which had the effect of postponing speculation for another four years. How much confidence will Wall Street have in Greenspan's turn-of-the-century successor? How much confidence will it have in the Federal Reserve in the days or weeks before a successor is named? Suppose that the Treasury is putting pressure on the Federal Reserve for greater accommodation—possibly because our trading partners are reluctant to extend our government further credit until they know who is replacing Greenspan. What would happen to the demand for liquidity? And how would the lame-duck Federal Reserve Chairman respond so as to maintain his own credibility as well as that of his successor-to-be-named-later? Even mildly cynical or pessimistic answers to these questions may suggest that this financial crisis may burn through the firewall. The real economy would then become an innocent victim as the central bank attempts its extramarket remedy to the extramarket malady in the form of a fiscally irresponsible Treasury.

Free Banking as Both Prevention and Cure

The merits of free banking during periods of economic tranquility are identified on the basis of the theory of

competition as applied to the banking industry and the experience provided by a key episode in nineteenth-century Scotland and more recent episodes involving other countries with partially free banking. Assessing the likely performance of free banking during twentieth-century financial crises in the United States necessarily involves some speculative reasoning. It is worth noting, however, that the most prominent nineteenth-century defender of free banking argued his case partly on the basis of the ability of competitive forces to "meet an incipient panic freely and generously" (Bagehot 1873, p. 104).

Whatever the problems and limitations inherent in free banking or in market economies generally, competition that characterizes a decentralized system wins out over the policy edicts of a central bank largely because of the absence of key perversities that are inherent in central control. The advantages of decentralization are partly in the form of prevention, partly in the form of cure.

One of the major sources of today's macroeconomic instability, the excessive federal debt and deficits, would be largely absent under free banking. Without a central bank to keep the default-risk premium off Treasury bills, the federal government, like overextended firms and even fiscally irresponsible municipalities, would have had to deal with its fiscal imbalance long ago. Free banking, which is free not to monetize Treasury debt, could accomplish what debt-limitation ceilings, the Gramm-Rudman deficit-reduction plan, or even a balanced-budget amendment cannot accomplish. Without a chronically high and growing debt and the attendant speculation about the changing particulars of deficit accommodation, financial crises are less likely to occur.

If a financial crisis does occur, the provision of supernormal amounts of liquidity is forthcoming under free banking—but without the destabilizing speculation about the particular movements in the money supply. Questions about the "will" or "intent"—or "genius"—of the banking system as a whole simply do not arise. The supply of liquidity automatically follows demand upward during the financial crisis and downward as crisis conditions fade. It is true that some banks will be more responsive than others at meeting the occasional supernormal demands for liquidity. One of the beneficial aspects of competition in any sector of the economy is that those firms who best satisfy ever-changing demands prosper relative to their competition and are thus put in charge of greater resources. With

free banking, then, success breeds success. A sequence of crises gives increased responsibility to those very banks that are best at dealing with crises.

To this point the advantages of free banking over central banking are set out in terms of the likelihood of our needing a firewall between the financial and real sectors of the economy and the ability of each banking institution actually to provide that firewall. The firewall metaphor, however, presumes that no systematic adjustments are needed in the real economy. But it is entirely possible and even likely that whatever caused the crisis conditions to prevail in the financial sector also caused non-financial resources to be misallocated. Simultaneous financial and real crises, as might be brought about by the ill-conceived policies of an administration bent on growing the economy, could not be quelled by a firewall. Quite to the contrary, the reallocation of resources in the economy would require a well-functioning market process, which includes movements in resources that reflect movements in securities prices. Here, the implicit monetary rule observed by free banking takes on a special significance. Movements on the lefthand side of the equation of exchange (an increasing V) are effectively countered; movements on the righthand side (in the ps and hence in P) are not. If the economy's real sector is out of balance, it needs help from the financial sector to regain its balance. In such circumstances, "firewall" is the wrong metaphor; "penny in the fusebox" would be more accurate. Only free banking can allow the financial sector to guide the real sector while preventing the demands for liquidity from degrading the market's performance.

A Summary View

In the Keynesian view, the central bank is a part of an extramarket remedy to a market malady. Investment markets are inherently unstable; government control of the economy's money supply is an important element in macroeconomic stabilization policy. The case against central banking—and for free banking—reverses the characterization of both remedy and malady. Free banking is a part of a market remedy to an extramarket malady. Even this stark reversal understates the case for free banking. It would remain valid even if we take the dramatic and chronic fiscal irresponsibility of the Treasury as given. Periodic crises that will inevitably occur in such a debt-ridden economic environment would be more ably countered by the market forces

of free banking than by the policy moves of a central bank. But the extent of the Treasury's fiscal irresponsibility is itself dependent upon whether the Treasury can count on an accommodating central bank. Free banking limits the scope of this potential source of instability while at the same time enhancing the market's ability to deal with whatever instabilities that may persist.

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[1] The comparison of schools facilitated by the equation of exchange is wholly independent of the unique qualities of Austrian macroeconomics, which features the intertemporal allocation (and possible misallocation) of resources and requires theorizing at a lower level of aggregation.

[2] It should be noted, however, that even before the impact of Milton Friedman's empirical work was fully felt, the Early Monetarists held that the typical and most significant reductions in MV were attributable to reductions in M and not in V.

[3] Here and throughout the paper, the phrases "increase in the demand for money" and "decrease in the velocity of money" are used interchangeably. Although this usage is not unconventional, some monetary theorists take money demand to be defined by the equation of exchange itself. That is, Md = (1/V)PQ, in which case *any* change on the righthand side of the money-demand equation would constitute a change in the demand for money.

[4] Even worse, the school of thought whose sails have most recently caught the academic wind calls itself New Keynesianism —seriously missing the mark with both parts of its name. Gregory Mankiw and others (Ball, et al., 1988) remain largely agnostic about the specific source of change on the lefthand side of the equation of exchange. Their theorizing holds up whether it is M or V that decreases. The Keynesian label is adopted simply

on the basis of their recognition that prices do not change instantly—a basis that actually distinguishes their (and many other) arguments only from extreme versions of New Classicism. The "New" is added in recognition that the assumption of sticky prices is replaced with "sophisticated" reasons for prices not adjusting instantaneously. But Early Monetarism as initially set out and in modern expositions does not fail to include reasons for the behavior of those who set prices. New Keynesianism is Early Monetarism offered with the aid of now fashionable modeling techniques, which involve mathematically tractable—if largely implausible—constraints on price- and wage-adjustments.

[5] By wholly ignoring discoordinating consequences of deflationary pressures and factoring in the effect of an anticipated price-level decline on the real value of money holdings, Friedman (1969, pp. 45–47) argues for a theoretically optimal growth rate for M that is considerably *lower* (2% instead of 5%) than that implied by secular changes in Q and in V.

[6] Selgin (1991) distinguishes clearly between what I have called malignant and benign deflation. It is interesting to note that free banking, which relieves only the malignant deflationary pressures, may get close to Friedman's theoretical optimum, which assumes those pressures away. (See footnote 5.)

[7] The telling exceptions involve Presidents Ford, Carter, and Bush. In 1976 Ford simply did not play the game. He did not press Federal Reserve Chairman Arthur Burns, who had helped Nixon get re-elected four years earlier. With Ford perceived as a non-starter, Carter boasted that his administration would "hit the ground running," which in terms of monetary policy meant that the expansion was started much too early. By re-election time (1980), the stimulative effects of the monetary expansion had receded into history and inflation was upon us. With equally bad timing, but in the opposite direction, Bush tried to play the game in 1992 but started the expansion too late—after finally realizing that he couldn't ride through the election on his victory in the Persian Gulf. The monetary stimulant was felt during the first few months of the Clinton administration. Starting too late, too early, and not at all, these three incumbent campaigners had one thing in common: They lost.

[8] There are a number of books written in the spirit of *Bankruptcy 1995* (1992) offering calculations of one sort or another about when the debt bomb will blow. Will it be when interest payments dominate the growth path of the debt? Or when interest payments exceed tax revenues? Calculations based

on these and related eventualities are almost surely irrelevant. In informal discussion, I have designated all such calculations as establishing what I define to be the "Gore Point"—the point at which even Al Gore perceives the debt as a problem. (A colleague has suggested an equally apt name the "Barro Point," in honor of Robert Barro, who persistently downplays all the worries about government indebtedness.) The important point here is that financial markets do not await the education of Al Gore. Much of the instability currently observed on Wall Street is attributable to the chronically large debt and deficit.

[9] This is not to suggest that deficit-induced instabilities are the only macroeconomically significant ones. Instabilities emanating directly from the Federal Reserve and instabilities associated with perverse banking regulations and deposit-insurance pricing also have a claim on our attention. But, arguably, the deficit-induced instabilities deserve more attention than they have so far received. See Garrison (1993 and 1994).

[10] The idea that the Federal Reserve's attempt to deal with a domestic liquidity crisis may trigger an international currency crisis in this way is drawn from Lawrence Summers' discussion of the "Macroeconomic Consequences of Financial Crises" in Feldstein, 1991, pp. 153–56.

Who Owes What, and To Whom? Public Debt, Ricardian Equivalence, and Governmental Form

Richard E. Wagner

The postwar literature on public debt has been concerned primarily with two related issues: (1) whether public debt allows the cost of government to be shifted forward onto future generations and (2) whether the creation of public debt involves a positive net wealth effect. The development of this literature can be portrayed chronologically by three works, even though many authors have contributed to that literature.[1] Lerner (1948) advanced the thesis that the burden of the debt rests upon people at the time the debt is created, as illustrated by the aphorism "we owe it to ourselves." In sharp contrast, Buchanan (1958) argued that public debt allowed people in the present to shift the cost of government onto people in the future.[2] Barro (1974) denied the ability of public debt to transfer cost forward in time because, with intergenerational altruism, an increase in debt would be accompanied by an increase in saving to pay the future taxes required to service the debt. At the same time, Barro also denied the effectiveness of fiscal policy by that very fact: debt-financed government services would not have the stimulatory impact portrayed in the postwar Keynesian models, because the increased government spending would be offset by increased private saving necessary to provide the means to service the debt.

In this paper I accept the Ricardian argument that debt is just taxation by another name, both as an analytical point of departure and as a condition of satisfactory modeling. I also explain why the theory of public debt must be applied differently in democratic political settings than in the authoritarian setting that provides the effective backdrop for most of the postwar literature. To take a public debt of $4 trillion for a population of 250 million, and to say that each person in the land has, on average, a debt of $16,000 is an arithmetical truism that

obscures rather than clarifies thought about public debt within a democratic state. If we ask *to whom* public debt is owed, we would not answer "ourselves," but would answer "bondholders." If we ask *who* it is that owes the debt, is "we" the right answer in any but a purely formal sense? Two people may agree to go for a ride, in which case they would no doubt each say that "we" went for a ride. But if one of them kidnapped the other, at least one of them would refuse to say "we" went for a ride. With regard to public debt, the question of "*who* owes what" cannot be addressed outside some framework for political or fiscal choice.

Personal Debt, Sovereign Debt, and Ricardian Equivalence

The use of deficit finance in place of current taxation represents the substitution of future taxation for present taxation, and the present value of those future taxes will equal the amount of the deficit being financed. This is simply a matter of arithmetic. An *aggregate* balance sheet can show no change in net worth, because all that has happened is that a short-term liability has been transformed into a long-term liability of the same present value. The aphorism "we owe it to ourselves," is simply an identity within any aggregate accounting system. In any aggregation over balance sheets, assets must equal liabilities. The value of home mortgage debt held by creditors must equal the liabilities of mortgagees. Viewed in the aggregate, it would be correct to say "we owe mortgage debt to ourselves." But it would not be correct to infer from this statement that payments on mortgage debt are simply transfer payments and not payments for services rendered.

Ricardian equivalence must provide a point of departure for any analysis of public debt, as well as serving as a necessary constraint on any effort at *aggregate* modeling. But it does not follow from this simple arithmetic that the choice between debt and taxation is subject to some invariance proposition to the effect that nothing depends upon or is affected by the choice between debt and taxation. The choice between debt and taxation can matter for *particular* people, and, indeed, these differences are central for any effort to understand the creation of public debt in the first place. Aggregate equivalency must not be confused with a proposition of behavioral invariance to particular institutional conditions. It does not imply that choices between debt and taxation will be invariant to the institutional

setting within which such choices are made.[3] To the contrary, different institutional settings can lead to different fiscal and budgetary choices, despite the underlying constraint implied by Ricardian equivalence. I shall consider this proposition briefly here for personal and sovereign debt, before considering democratic debt in the remainder of this paper.

Ricardian equivalence clearly holds for personal debt. Someone who borrows to buy a car does not become wealthier than he would have been by paying cash. The reduction in cash that would have been required is equivalent to the present value of the liability for amortization payments when the car is financed by borrowing. Some people may prefer loan finance to cash finance, perhaps because loan finance allows the buyer to achieve a smoother time path of total consumption than would be possible with cash finance. Nonetheless, loan finance does not allow someone to escape his intertemporal budget constraint. It is not a source of wealth.

The Ricardian character of personal loan finance stems from the institutional setting within which credit markets operate. A borrower might well like to derive a positive wealth effect from borrowing, but the lender has a strong interest to prevent such a wealth transfer. Collateral provisions and risk premiums are means to guard against such wealth effects. So too, for that matter, is the borrower's own interest in avoiding a bad reputation, at least so long as he is interested in future credit transactions. While personal borrowing has no wealth effect *ex ante*, there can be instances where it does have such an effect *ex post*. The borrower may become insolvent, or may die insolvent, with the lender receiving less than full payment in either case. Even in these cases, however, Ricardian equivalence still holds in the aggregate because the borrower's gain is offset by the lender's loss.

This institutional setting for personal loan finance could be extended readily to state borrowing in a monarchical or other form of authoritarian regime. State debt in this setting is equivalent to personal loan finance when dealing with individuals. Indeed, in the case of a hereditary monarchy, full intergenerational altruism may be plausible, though it is not necessary. For even if such altruism were only partial, and even if the monarch's hold on his crown were tenuous, the Ricardian constraint would nonetheless hold as a central feature of credit markets. Debt finance could offer an anticipated increase in net worth to a sovereign only in the event he had superior

information about his intention to migrate or to die than creditors possessed. In such circumstances, the sovereign might choose loan finance over tax or cash finance as a means of appropriating the assets of creditors. The sovereign's ability to do this, however, is limited by the interests of creditors to avoid this appropriation, and so is possible only to the extent informational asymmetries are present. And even should cases of such appropriation result, the Ricardian constraint must again hold in the aggregate: the sovereign's increase in net worth must be offset by a decrease in the net worth of his creditors. Ricardian equivalence must always hold over some appropriately defined aggregate.

The theory of autocratic or sovereign loan finance does not really look much different from the theory of personal loan finance.[4] Differences there are, but the similarities are dominant. An inability to bring suit against a monarch for a failure to pay debts is a difference whose significance is easy to exaggerate, just as it is easy to exaggerate the importance of police and courts in explaining why people generally adhere to personal credit contracts. A monarch faces the problem of attracting credit in the first place, and the willingness of lenders to lend varies directly with the strengths of their beliefs that the monarch will pay his debts. A sovereign's ability to appropriate the assets of creditors through default or repudiation is limited by the interests of creditors in avoiding this appropriation.

More than this, even in monarchies and other forms of absolutism, extra-legal means of contract enforcement are available. There is no such thing as an unconstrained sovereign (Tullock 1987). Among other things, unhappy creditors can serve as threats to a reigning despot through their ability to organize coups, to plot assassinations, and the like. An indebted king will have more options and resources than an indebted peasant, though he will surely also have larger debts which, in turn, will help to marshall stronger opposition to repudiation. Moreover, a peasant's debts might be so small as to lead a creditor to decide that it is not worthwhile to pursue a legal action for recovery of what is owed. In any case, the differences between personal and sovereign debt is surely more quantitative than categorical.

External Debt, Internal Debt, and State Borrowing

Personal or sovereign debt can only be external, for it makes no sense to speak of a person or sovereign as borrowing from

himself. A considerable body of scholarship portrays democratic debt as if it were the debt of a person or sovereign. Barro (1979, 1989), for instance, explains public debt in terms of the utility-maximizing choice of a representative citizen where the government is faced with exogenous shocks to anticipated revenues or planned spending, with those shocks usually described as recessions or wars. If tax rates are varied in response to such shocks to maintain a balanced budget, the excess burden of taxation will be larger than it would be if taxation were held constant at that level which produced long-term budget balance. According to this tax-smoothing explanation, public debt smooths shock-induced variations in tax rates, and thereby minimizes the excess burden associated with taxation. This formulation represents a public sector counterpart to the permanent income hypothesis, with transitory deviations from normalcy going into public sector saving, either negative via debt creation or positive via debt reduction. While this formulation builds upon a good deal of intuitive plausibility grounded in personal finance, it is nonetheless quite problematical precisely because of its personification of the state.

For one thing, this standard reasoning in support of public borrowing to finance extraordinary expenditure does not explain why the result is a theory of public debt and not a theory of public credit. Even if the analogy with the permanent income hypothesis is maintained, it does not follow that the state will be a net debtor. It could just as well be a net creditor. Borrowing to finance unanticipated decreases in revenue or increases in expenditure is only one of two possible options. The other option is to finance those unanticipated deviations from some type of reserve fund, in which case the state would be a net creditor.

It may be readily acknowledged that extraordinary circumstances may periodically place unusually heavy demands on governmentally-provided services. Yet this acknowledgement does not support a model of public borrowing over one of government as a supplier of credit. The central point in either case is that, in present value terms, the actual tax rate exceeds the rate required to finance ordinary expenditure by an amount sufficient to cover the extraordinary expenditure.[5] Whether a government would borrow or lend would depend primarily on the historical timing of recessions or wars. If one occurs at the beginning of a regime, it would have to be financed by borrowing. Otherwise, it could be financed through a fund created by previous surpluses. In any case, an aggregation over

governments would show no net governmental debt. To be sure, in representative democracies there may well be reasons for an asymmetry between budget surpluses and budget deficits, with surpluses having less political value.[6] Recognition that the claims of extraordinary finance cannot be used to explain why states are borrowers rather than creditors suggests, in turn, the merits of exploring a less aggregative conceptualization of public borrowing, recognizing all the while that the Ricardian constraint must operate in the aggregate.

Moreover, explanations of state borrowing through such analogies with permanent income notions as the tax smoothing hypothesis require that all public debt be held externally. Yet the preponderant share of public debt is held internally, and tax smoothing cannot explain internal debt finance. With internal public debt, some people lend and others borrow. People who buy bonds make what would otherwise have been the tax payments of those who do not buy the bonds. The borrowers might be smoothing their tax payments, but the lenders are amplifying the variability of their tax payments. With internal public debt, the state acts as an intermediary between those people who advance credit and those people who defer their tax payments until some later period.

Democratic Debt and the Intermediary State

To say that the government owes $4 trillion or must pay $200 billion in interest on its debt is not to acknowledge some organizational obligation, for that would be to personify what cannot be personified. Rather, it is a reductionist manner of saying that some people owe $4 trillion to other people, and that the annual interest component of that obligation is $200 billion. The government is in essentially the same position of any other financial intermediary, with the intermediation taking place between the borrowers who thus are paying less in current taxes and the lenders who are making those tax payments instead. With ordinary financial intermediaries, it is straightforward to say who owes what to whom. It is not so straightforward, however, for public debt in a democracy. The aphorism “we owe it to ourselves” offers no guidance in this respect. It is even wrong, in that the “ourselves” can be replaced by the bondholders. But who is it, precisely, who does the owing?

One question that arises immediately is why the state would act as an intermediary. Why does public debt substitute for

taxation? The predominant response to this question has involved the presumption that this substitution takes place when it is economically efficient along Paretian or Kaldor-Hicks lines. An additional tax burden is imposed in a setting where, say, 90 percent of the population would prefer to defer payment at prevailing interest rates, and where the remaining 10 percent is willing to lend at those rates to the other 90 percent. Why not assign the tax liabilities in the present, and let people work out whatever credit arrangements they choose through ordinary market processes? Private debt would replace public debt. The efficiency-based explanation for state intermediation through public debt is that government can borrow more cheaply than could the individuals who would otherwise resort to private lending sources.[7] State intermediation offers potential gains from trade for all participants, when compared against market-based intermediation. On the one side, people who supply credit at the government's interest rate reveal their willingness to do so. On the other side, it would seem to take no genius to determine that the remainder of the citizenry, who otherwise have to borrow at commercial rates, would prefer to borrow at the government's lower rate.

If this is all there were to the matter, government would be a superior intermediary to market-organized firms. In this case, the lower rate of interest on public debt would represent a genuine cost advantage over transactions organized through market-based intermediaries. Socialized intermediation would be superior to privatized intermediation. The lower rate of interest on public debt is undeniable, as a simple inspection of the financial pages of any newspaper will show. It does not follow, however, that there are any efficiency gains from the state supply of financial intermediation. There is a neglected cost to state-organized intermediation, which is a cost that is borne by taxpayers because the state uses its power to impose unlimited liability on taxpayers.[8]

It is accurate to say that government bonds carry a lower rate of interest than corporate bonds because bondholders believe that the government bonds are safer. This safety, however, resides not in greater governmental efficiency, but in the unlimited liability that taxpayers face, as contrasted to the limited liability of corporate shareholders. If corporate bonds were sold under unlimited liability, where officers and directors were personally liable for claims, they would offer lower interest rates than they now carry, perhaps even lower rates than offered

by state debt. Alternatively, if government operated by principles of limited liability, bondholders would bear risk that is now borne by taxpayers, and the government's borrowing rate would rise, perhaps above that which is privately available. The lower interest rate on public debt may represent not some genuine opportunity but rather be a feature of the unlimited liability character of governmental claims. As a result, the resort to public debt may result not because everyone gains, but because some gain to the detriment of others, with public debt serving as a vehicle of wealth redistribution.

Public Debt in a Concordant Democracy

While it seems relatively straightforward to conclude that public debt is owed to the state's creditors, only in a purely formal sense can it be concluded that the general citizenry constitute as a collective body the state's debtors. The question of who truly owes public debt depends upon the character of a political system and its institutions. An important question in this respect is whether that borrowing is done voluntarily or forcefully. Is it that the net debtors agreed to the transaction? Or is it that they were compelled, and hence became *forced debtors*? The typical presumption in the literature on public debt is that the transactions were voluntary. To be sure, this presumption is often left only implicit, as in the sovereign debt literature where only a single person is involved, or in the related notions involving some representative citizen. Whether the intermediation between debtors and creditors that public debt entails involves free debtors or forced debtors is to an important extent a matter of whether the constitutional framework within which fiscal choices are made can be characterized as *concordant* or *factional*.

It is certainly possible to imagine fiscal choices being made in an essentially concordant constitutional system, as illustrated by various models of the optimal supply of public goods. Consider a Wicksellian fiscal system, where fiscal choices would be made under unanimity or something close to it.[9] Borrowing would be agreeable to all, net debtors and net creditors alike. The only difference in this case from the usual presentations of Wicksellian-based models is that a secondary market for personal tax obligations would arise. Tax liabilities would be assigned in the present, under unanimity or close to it, only the state would act as an intermediary to bring together those who would prefer

to defer their tax payments and those who are willing to lend.

Public debt clearly would fit within the Wicksellian framework if the future tax liabilities that debt finance entailed were assigned in the present. This would be Ricardian equivalence reduced to the level of the individual participants in the current choice to replace current taxation with future taxation, for those future tax obligations would be assigned to particular individuals in the present. Table 1 illustrates this point in a simple fashion, and in a manner that will be used for a different purpose in the next section. Assume there are three voters and two periods. In the absence of government debt, total taxes and government spending are $300 in each period, with each voter paying $100 in each period. Alternatively, suppose taxes are reduced by 10 percent, with the remainder supplied by a $30 issue of public debt where V_1 buys the government bonds. Assuming a zero rate of interest to simplify the illustration, total tax collections rise to $330 in the next period, $300 of which go to finance state services while the remaining $30 is paid to V_1 to service the debt. The present value of aggregate tax collections over the two periods, assuming a zero rate of discount, is $600 with or without debt. Similarly, the present value of each person's tax liability is $200, with and without debt. With debt V_2 and V_3 each borrow $10 from V_1, and repay their debts in the next period.

While debt finance can in principle fit within the Wicksellian, concordant framework, it is questionable whether it can do so in practice. In the absence of such a present assignment of future tax obligations, the actual distribution of those future obligations that result from the present choice to borrow will be contingent upon a wide variety of circumstances. Among other things, these circumstances include the future economic standing and position of people in a future period when those taxes become due, and also include all of the possible political adventures that may change the tax code over the intervening years. Circumstances could be imagined in which the contingent feature of the tax liability that debt issue represented was expectationally neutral, in that the present value of anticipated tax liability was the same for everyone with and without debt. Indeed, within a Wicksellian framework for fiscal choice, a substitution of the future taxation that public debt represents for current taxation would be approved only if people had neutral expectations as to the impact of the contingent character of the future liability that public debt creates. Otherwise, there would

be people who expected public debt to increase their tax obligations relative to current tax finance, and so in turn would oppose the proposed debt finance, even if they might support the proposal under current tax finance.

Table 1
Illustration of
Public Debt Options

Without Debt	**Period 1**	**Period 2**
V_1	$100	$100
V_2	100	100
V_3	100	100
Total	300	300
With Debt		
V_1	$90 + 30	$110–30
V_2	90	110
V_3	90	110
Total	270 + 30	330–30

Public Debt in a Factionated Democracy

What about public debt within a factional constitutional framework? By factional I mean a constitutional system that fails to control what Madison called in *Federalist* No. 10 the violence of faction, and which conforms to rent seeking and churning in the contemporary literature on public choice and constitutional economics. There are many particular ways to model a factional constitutional system. In all such cases, some people are able to enrich themselves by securing increased spending on desired programs, paid for by taxes imposed on other people.

How might the elimination of the constitutional constraint on public borrowing affect the resulting budgetary choice? For the option of deficit finance to have an impact on budgetary choices, it is necessary that the introduction of that option expand the opportunities available to some decisive subset of the population. Deficit finance would have to lower the cost of budgetary choices to decisive individuals and coalitions, as compared with tax finance. By virtue of the Ricardian theorem, the aggregate present value of future taxes must equal the amount of the budget deficit. But it does not follow that such present-value equivalence holds across individuals, which means in turn that the consequences for budgetary choice will depend on the way in which fiscal institutions shape and constrain

processes of budgetary choice.

The situation portrayed in Table 1 can be used to illustrate some central features of factional public debt. There are several ways that the creation of public debt can change the cost of government to voters in period 1, while maintaining the Ricardian equivalence built into Table 1 in the aggregate. One way is through recognition that the identities of the people portrayed in Table 1 change with the passing of time. For instance, V_3 in period 1 may be elderly and without heirs, with his place in period 2 taken by a new entrant, who simply faces a tax burden of $110, $10 of which goes for interest on the public debt. Alternatively, V_3 might be middle-aged in period 1 and be in retirement in period 2 and out of the labor force, with his place taken by a new entrant in the labor force. For people in such positions as these, debt finance is less costly than tax finance.

Within a factional system, public debt is one of the instruments of wealth redistribution and government expansion. Consequently, public debt would not represent some agreement between net debtors and net creditors. Net creditors would clearly agree to hold the debt, at an interest rate that reflects their assessment of risk. Not all net debtors, however, would have agreed to the transaction. Some would have, namely those who gained through budgetary expansion, when they would not have supported such expansion under tax finance. Public spending and debt would expand beyond what a significant share of the population would have agreed to under some Wicksellian-type constitution. Creditors gain from the operation, as does that part of the net debtor population that nonetheless are net gainers from the debt-financed expansion in government. There will also be forced debtors who would have preferred tax finance, along with the smaller public sector that would have resulted. For instance, someone with a number of children and a strong bequest motive will lose through public debt, as personal consumption is reduced to provide the fund to pay the resulting added taxes imposed on his heirs.

There are many dimensions along which this separation among net debtors might occur. One involves differences in the degree of intergenerational altruism among people.[10] In the presence of the constitutional prohibition on deficit finance, variations in intergenerational altruism will have no impact on budgetary choice. But when borrowing is possible, the no-debt outcome will be disturbed. For borrowing reduces the relative

cost of government services to people the weaker their intergenerational altruism, and provides a vehicle for leaving negative bequests. In a simple median voter model, the budgetary choice will be controlled by the person whose intergenerational altruism is median within the population. The introduction of a deficit financing option will lead to an expansion in the size of government because it reduces the cost of government to the median voter. A new budgetary equilibrium will be established where, for the median voter, the marginal value of added public output equals his marginal cost through deficit finance.

Other models could give descriptively different but analytically similar results. For instance, a ruling political party could be characterized as seeking to expand different tax sources so as to equalize political resistance at the respective revenue margins. The introduction of a debt option lowers marginal political cost. This leads to deficit finance, and the more fully debt is used the higher becomes the political cost of deficit finance. The political pressures from different revenue sources will be equalized at the relevant political margins, where the future taxes represented by debt finance encounter the same political resistance encountered by present taxes. The Ricardian proposition must hold as a condition of political equilibrium, for otherwise there will be a shift in the mix of tax instruments toward those that entail lower political cost.

In any case, public debt is to a significant extent concerned with transferring wealth among people within the present, though it also exerts effects across time. Among other things, people with relatively weak bequest motives promote the use of public debt over taxation as a method of increasing their net wealth, while people with relatively strong bequest motives suffer a wealth loss through the larger-than-desired public sector that results. The creation of public debt does not increase aggregate wealth, but it does increase wealth for some people who are influential at the margins of budgetary choice, while reducing wealth for those who are on the losing side.

Repudiation as Constitutional Restoration?

In a world of balanced budget finance, some people can be forced carriers as a natural product of a factional constitutional system. When deficit finance is allowed, people can likewise become forced debtors. These are people who would not have

supported expansion in debt-financed programs, but who will be compelled to pay taxes to amortize that debt in future years. Government is expanded beyond concordant limits, as the result of a coalition between net creditors and those net debtors who gain from budgetary expansion. What remain are those net debtors who lose from budgetary expansion, and who find themselves saddled with future taxes to amortize the debt-financed spending that they would not have consented to in the first place.

A number of commentators have expressed concern that the debt-income ratio could rise to a point where people begin to lose confidence in the government's ability to service its debt. [11] This positive claim can be granted without coming to the conclusion that public debt should be frozen, as by the imposition of a balanced-budget requirement, or retired. Public debt can also be repudiated, either partially or wholly. In this regard, Rothbard (1962, pp. 881–83) argues not just against the view that "we owe it to ourselves," but also argues in support of repudiation, as against either retirement of debt or freezing it at present levels. It is plain to see why state creditors and the winning borrowers within a system of factionated democracy would oppose any effort at debt repudiation. Not only would such repudiation erode gains that have been set in place by past fiscal operations, but also repudiation would curb sharply, if not eliminate entirely, the willingness of people to serve as state creditors. Repudiation would seem to increase the cost of participating in the factionated politics of shifting tax burdens onto losing coalitions through deficit finance, by increasing the costs to potential creditors from participating in the process. By reducing the willingness of people to become state creditors, repudiation would increase the cost of deficit finance and, hence, lower the size of government and the present value of future taxation.

To be sure, public debt is woven throughout our society, with many people being state creditors through their share in the holdings of pension funds, as well as in other ways. No doubt, many such people might be state creditors while still being net state debtors, even forced debtors at that. Repudiation would affect balance sheets throughout the land, and would probably leave few untouched. Taxation and monetization offer alternatives to repudiation that could achieve more-or-less the same end-state, though with considerable distributional differences among people. Indeed, repudiation is a form of

taxation on the holders of government bonds. It seems clear enough why politicians and all of those who think they are net gainers from the continual churning of the state machinery would support either taxation or monetization over repudiation.[12] Indeed, taxation and monetization have been used repeatedly in covering over some of the insolvencies that arise through the state's intermediation between creditors and debtors, under which the promises to pay to creditors exceed the promises not to tax debtors.[13] Repudiation, however, would seem to strike at the very political process that countenances the creation of insolvent claims within the political marketplace. Should shifting political coalitions present an opportunity for repudiation, some quasi-constitutional assurance against a future status of being a forced borrower might be created through the long-term impact that repudiation would have upon potential state creditors.

Concluding Remarks

The economic analysis of public debt differs depending on the presumed political setting. It may be reasonable to characterize public debt choices within an authoritarian regime as being made by a single mind, but such a characterization is surely inapt for democratic regimes. A presumption of a representative citizen is simply incapable of characterizing public debt choices in complex societies where preferences and interests differ among people. To be sure, even in such societies Ricardian equivalence must hold in the aggregate, but this aggregate equivalence is irrelevant for human conduct in fiscal choice. Deficit finance injects a systematic differential among current citizens in the cost of public finance.

In this paper I have considered public debt as an alternative to tax finance. But within existing monetary institutions, public debt creation often serves as a disguised form of money creation. The possibility of inflationary finance opens up, in turn, new avenues along which deficit finance may serve as a means by which politically dominant groups are able to impose costs on others. A complete analysis of public debt within an interest-group approach to fiscal processes will clearly have to incorporate and integrate such monetary considerations, at least under prevailing central-banking institutions. Wherever such an analysis might lead, Ricardian equivalence will have to hold in the aggregate; yet such aggregative equivalence will be only a

side show in the fiscal drama that public debt represents.

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[2] For a good sample of this controversy between these two positions, see the essays in Ferguson, ed. (1964).

[3] The importance of institutional settings for debt analysis is explored in Wagner (1986).

[4] On the economic theory of sovereign debt, see, for instance, Eaton and Gersovitz (1981) and Grossman and Van Huyck (1988).

[5] Or to cover reductions in tax receipts below normal levels in the case of recessions.

[6] This theme is developed in Buchanan and Wagner (1977).

[7] See, for instance, de Viti de Marco (1936, pp. 377–98).

[8] This point is articulated in Mises (1966, pp. 225–28).

[9] Wicksell is often summarized in this regard as supporting a rule of near-unanimity in collective choice. This is true, but there also is a supporting institutional framework that complements the principle of unanimity, and which is discussed in Wagner (1988).

[10] See, for instance, Buchanan and Roback (1987) and Cukierman and Meltzer (1989).

[11] See, for instance, the discussion in Spaventa (1988). In a related vein, see Steadman (1993) for a program of debt retirement.

[12] The churning state is articulated nicely in de Jasay

(1985).

[13] A tax rate of 10 percent in place at a time when debt is created involves as much a promise to let taxpayers keep 90 percent of their income as it involves a promise to pay creditors principal plus interest. An increase in the tax rate is as much a partial repudiation as is an erosion through inflation in the real value of payments to creditors.

Reflections on the Misesian Legacy in Economics

Israel M. Kirzner

As I begin this paper for the issue of the *Review of Austrian Economics* published in honor of the memory of Murray N. Rothbard, my mind goes back over 40 years, to the first time that I met him. It was at the opening session of the Seminar in Economic Theory which Professor Mises conducted in the fall semester of 1954. That occasion was also my first meeting with Ludwig von Mises, and it is etched deeply in my memory. Two statements by Mises at that seminar meeting stand out in my recollection. One statement was his very opening substantive sentence that evening. "The market," Mises began, "is a process." (See also the statement in *Human Action* [1966, p. 257]: "The market is not a place, a thing, or a collective entity. The market is a process.")

Coming as I did from a rather spotty undergraduate training in economics (and mainly along Keynesian lines), Mises's statement, I recall, left me completely puzzled. I *had* thought of the market as a place, an arena for exchanges, as an abstract idea referring to voluntary exchange transactions. I could not fathom what on earth could be meant by the observation that the market is a *process*. I now, in retrospect, consider that all my subsequent training and research in economics, both before and after obtaining my doctorate under Mises, has consisted in learning to appreciate what it was that Mises meant by this assertion.

The second statement by Mises which stands out in my memory from that September 1954 evening, is a reference that Mises made to Murray Rothbard. Murray had, it appeared, recently completed a paper which Mises found to be excellent. He briefly but warmly complimented Murray on that piece of work, and expressed the hope and the prediction that Murray would continue to produce a great deal of future work of similar excellence. The years since 1954 have amply borne out Mises's hope and his prediction. Murray Rothbard's output during these four decades has been prodigious. The breadth of his reading across so many disciplines has been breathtaking; his sheer energy in producing thousands of pages of published work has

been stupendous. It is a privilege to contribute this paper to a memorial issue dedicated to the memory of Murray N. Rothbard.

My paper will have to do with the first of the two statements made by Mises at that 1954 seminar session. I will be taking issue with a certain tendency, present in a number of recent expositions of Mises's work, to de-emphasize (or even flatly to deny) the centrality of the idea of the market as a *process* in the Misesian system. I consider clarification concerning the character of the Misesian system to be of critical importance for the future direction of modern Austrian economics, and for its ability to contribute fruitfully to the restoration of economic understanding for the economics profession and for intelligent lay people at large. And this matter is also, of course, of fundamental importance in projecting an accurate overall view of Mises's own contributions. While I shall, in my argument, be taking issue with a number of relevant statements by Rothbard, I trust that the reader will appreciate that the purpose of this paper is simply to further that very Misesian legacy to which Rothbard dedicated his entire life's work as an economist. It is as a memorial to Murray Rothbard's consistency in this regard, and his willingness to bear formidable costs to his professional career in order not to compromise the honesty of his expositions, that this paper is being written. The purpose of any critical observations in this paper (whether directed at Rothbard or at others) is certainly not to stir up strife within the Austrian camp; quite the reverse. I am convinced that a clear, shared understanding of Mises's central vision can bring together all those who appreciate the intellectual content of the Misesian legacy. To contribute an attempt in this direction, in honor of the memory of an outstanding exponent of that legacy, is the purpose of this paper.

The Misesian Market Process

My own understanding of what Mises means when he describes the market as a process can be stated simply:

(1) Mises saw the market process as a continually *corrective* process driven and constituted by active entrepreneurial grasping of pure profits. "The essential fact is that it is the competition of profit-seeking entrepreneurs that does not tolerate the preservation of *false* prices of the factors of production. The activities of the entrepreneurs are the element that would bring about the unrealizable state of the evenly rotating economy if no further changes were to occur" (Mises 1966, pp. 337–38;

emphasis in the original). The market process consists, that is, in the continual correction of false prices that occurs in the course of entrepreneurial competition. If exogenous changes were not to occur, this corrective process would eventually lead to a price structure for factors of production and consumer goods, in which all entrepreneurial profit has been squeezed out. In the real world, at any given moment, factors of production are able to be purchased at false prices, prices which permit entrepreneurs to capture pure entrepreneurial profits. False prices are false in that they incorrectly reflect the relative urgency of consumer demand for the various alternative possible products that can be created with these factors. It is this discoordination between what *might* be produced and what in fact is being produced, which offers alert entrepreneurs opportunities *for* pure gain. "What makes profit emerge is the fact that the entrepreneur who judges the future prices of the products more correctly than other people do buys some or all of the factors of production at prices which, seen from the point of view of the future state of the market, are too low" (Mises [1951] 1962, p. 109). Entrepreneurs "are the first to understand that there is a discrepancy between what is done and what could be done." Their activity brings about a systematic adjustment of factor prices. They "bid higher prices for some factors of production and lower the prices of other factors of production by restricting their demand for them." Their activity also generates price adjustments for consumer goods. "In supplying the market with those consumers' goods in the sale of which the highest profits can be earned, they create a tendency toward a fall in their prices. In restricting the output of those consumers' goods the production of which does not offer chances for reaping profit, they bring about a tendency toward a rise in their prices. All these transformations go on ceaselessly and could stop only if the unrealizable conditions of the evenly rotating economy and of static equilibrium were to be attained" (Mises 1966, p. 336). All this ceaseless sequence of corrective price adjustments constitutes Mises's entrepreneurial market process.

(2) This Misesian corrective process from a false set of prices towards a set of fully mutually adjusted prices may be restated in the terms in which Hayek understood the market process to constitute a "discovery procedure" (Hayek [1968] 1978, chap. 12). "False" prices reflect the decisions of entrepreneurs who have not yet understood the correct implications of consumer preferences (present or future) for the relative values of resources

today. The way in which entrepreneurial activity tends to correct such false prices is through their realization of the profit possibilities inherent in such false prices. Grasping these profit possibilities is the way in which entrepreneurs express their discoveries concerning the correct valuation of resources (and thus, in effect, concerning better ways in which resources can be deployed in serving the preferences of consumers). The tendency which this entrepreneurial process generates towards equilibration is thus one of gradually enhanced mutual anticipation on the part of market participants. In the theoretical limit, in the hypothetical state of equilibrium in which no entrepreneurs would earn profit or suffer losses, we would be able to say that "all people . . . anticipate correctly the future state of the market" (Mises [1951] 1962, p. 108). Although it was Hayek, rather than Mises, who extensively articulated the nature of the market equilibrating process as one of gradually enhanced mutual knowledge, there can be no doubt that an interpretation of the Misesian process in terms of enhanced mutual knowledge is a valid one. Disequilibrium prices are "false" prices; as entrepreneurial profit taking nudges prices towards their correct levels, entrepreneurs have been led to more accurate anticipations concerning relevant future market configurations.

(3) What makes possible the entrepreneurially driven process of equilibration is active market *competition*. It is only the possibility of unrestricted entrepreneurial entry which permits more alert entrepreneurs to deploy their superior vision of the future in order to correct the misallocations of resources reflected in the false prices which characterize disequilibrium. It is the continual threat of such entry which tends to keep incumbent entrepreneurs alert and on their toes. The reason that Mises had little patience for the concept of perfect competition (see his approving reference to Hayek's pioneering essay on this matter "The Meaning of Competition," in Mises 1966, p. 278n), was that this concept can relate only to an already attained state of equilibrium. It has nothing to do with, and can throw no light upon, the competitive forces which drive the entrepreneurial market process. In deepening his (and our) understanding of the competitive process as consisting in a discovery procedure, Hayek was articulating insights that are, at the very least, thoroughly consistent with Mises's own understanding of the dynamic entrepreneurial competition which, for Mises, constitutes the heart of this market process.

The Shared Understanding of Mises and Hayek on the Market Process

To draw attention, as we have in the preceding paragraphs, to the shared understanding that is apparent in Mises's and Hayek's treatment of the market process, is not to "homogenize" separate systems or "paradigms" of economic thought. Mises and Hayek are, to be sure, distinct thinkers with different views—sometimes fundamentally different views—on many issues in economic theory and method. There is a definite contribution to be made, towards properly understanding each of these two great Austrian economists, by drawing attention to the matters on which they disagree. But, we must insist, (a) the general character of the market process does *not* constitute such an area of disagreement; and (b) this area of shared understanding is so central to the work of both Mises and Hayek, that our awareness of their common position in this matter must definitively dispel any suggestion of the existence of a Misesian "paradigm," in regard to the market process, that is sharply to be distinguished from a Hayekian "paradigm." Yet such claims have recently been made.

Mises and Hayek Dehomogenized?

Professor Salerno has, in a number of recent papers (1990, 1991, 1993, 1994), initiated a line of intellectual historiography designed to drive a wedge between Mises's and Hayek's understanding of markets. Murray Rothbard and Jeffrey Herbener (Rothbard 1991, 1992, 1994; Herbener 1991) have hailed Salerno's thesis as providing definitive grounds for the rejection by all "Misesians" of what Salerno, Rothbard, and Herbener see as grave "Hayekian" errors.[1]

The asserted distinctions on the basis of which Salerno declares the existence of two paradigms, a Misesian and a Hayekian, can be summarized as follows: (a) Hayek was trained under Wieser, and this accounts for his failure to have absorbed the Mengerian insights which, through the teachings of Böhm-Bawerk, later matured into the Misesian position (Salerno 1993, p. 114); (b) Hayek believed that "in order for prices to fulfill their knowledge-disseminating and plan-coordinating functions, the economy must subsist in a state of (what Salerno calls) 'proximal equilibrium,' wherein realized prices are always fairly accurate indicators of future prices" (p. 128); Mises, on the other hand, considered the concept of equilibrium as only a mental

tool. It "is impossible to determine and meaningless to suggest that the real economy is closer to the FSR [final state of rest], and therefore manifests a superior coordination of plans and greater allocative efficiency, at one instant of time than it was at a previous instant" (p. 129). The social role fulfilled by prices does not depend on the attainment or near attainment of the FRS. This leads directly to the next point. (c) For Hayek, allocative efficiency consists in plan coordination among market participants. For Mises, on the other hand, the social efficiency achieved by the market consists (and is *always* perfectly attained) in the *ex ante* "appraisement and allocation of resources [by entrepreneurs] in strict accordance with anticipated consumer preferences" (p. 130). Salerno recognizes that, in regard to *ex post* efficiency, entrepreneurial errors are inevitable in a world of uncertainty and change. However, apparently the only systematic process which Salerno recognizes in Mises as tending to correct such *ex post* inefficiencies, is that in which less astute entrepreneurs come to be weeded out of the system through their repeated speculative failures and resulting losses (pp. 131ff). (d) For Hayek the essence of the market process and of its social function, is in its overcoming of the "knowledge problem" arising out of dispersed knowledge "among the multitude of individual consumers and producers" (p. 115). It is this property of the market, and its absence in the socialist economy, which identified, for Hayek, the fundamental weakness of socialist planning. For Mises, on the other hand, Salerno and his colleagues claim, even if the socialist planners were miraculously endowed with perfect information, they would nonetheless be unable to "rationally calculate how to combine resources to render efficient production" (Herbener 1991, p. 43).

It is, indeed, especially the interpretation of Mises's thesis concerning the impossibility of socialist economic calculation that has been perhaps the central focus of Salerno's "two-paradigm" thesis. After a number of pages in which Salerno (quite unsuccessfully, it must surely appear) seeks to refute Leland Yeager's definitive paper (Yeager 1994) demonstrating that Mises's thesis does, after all, require that we attribute to Mises at least implicit recognition of Hayek's "knowledge problem," Salerno sums up as follows: "Thus market oriented PC [i.e., perfect competition] theorists, such as Hayek and Yeager, and neo-classical/socialist GE [i.e., general equilibrium] theorists are brothers under the skin" (Salerno 1994, p. 119).[2] Let us indeed, then, take up Salerno's treatment of the Misesian thesis;

it will, I believe, permit us to confront Salerno's major points of contention. We shall, I further believe, be able in this way to place our finger not only on the source of the two-paradigm fallacy, but (at the same time), also on a significant element in Mises to which Salerno has properly drawn attention. The circumstances that Salerno's recognition of this element in Mises has, in our judgment, unfortunately misled him (and Rothbard) to see *fundamental* divergence where none exists, should not blind us to the value of this characteristically Misesian insight for Austrian economic understanding.

Mises and the Calculation Problem

Salerno and Rothbard are fully justified in emphasizing the subtlety of the Misesian concept of economic calculation. With much of what they say in exposition of that concept, this writer is in full agreement. He objects only to the quite unwarranted conclusion which they draw from that exposition to the effect that the Misesian calculation problem has nothing whatever to do with Hayek's knowledge problem. A possible contribution to this unfortunate misunderstanding lies, I believe, in Hayek's earlier ambiguity concerning the nature of his knowledge problem. This writer has for a number of years (see Kirzner [1984] 1992, p. 149), pointed out that Hayek's brilliant 1945 paper, "The Use of Knowledge in Society," was seriously confused in making it appear that the function of prices in communicating knowledge was a function that is filled, in principle, also in the state of equilibrium. Salerno and Rothbard would be on firm ground if they objected, as this writer has objected, to such an equilibrium treatment of the place of knowledge and the communication function of prices. But the truth is (as becomes evident in Hayek's later work, see especially Hayek [1968] 1978) that Hayek's knowledge problem relates fundamentally to those states of affairs in which—precisely because of the knowledge problem—market agents are making plans which do not, in the fullest sense of the term, dovetail with each other.

As Salerno and Rothbard point out, calculation is needed in order to appraise the wisdom of prospective action. Without the tool of genuine money prices, economic agents would be reduced to comparing goods sacrificed and goods received, in the face of their obvious heterogeneity and incommensurability. Such an agent would be called upon, in effect, (except in the simplest of

Crusoe economies), to make decisions with his eyes closed; he would have no way of knowing whether his outcome represents profit or loss. Market prices provide the indispensable tool needed for calculation. Because the socialist society does not include resource markets, its central planners must operate without known resource values. Their decisions must be made, in effect, with eyes closed.

Under capitalism, entrepreneurs make their plans based on their entrepreneurial awareness of the resource prices they must pay in the more immediate future, and of the product prices they anticipate that they will be able to command in the more remote future. These anticipated prices provide the entrepreneur with cardinal numbers on the basis of which to appraise the profitability (or its absence) of prospective entrepreneurial activities. In the absence of resource prices under socialism, rational central planning is literally impossible, as Mises stated (and as Salerno and Rothbard quite correctly emphasize in their interpretation of Mises).

Where Salerno and Rothbard have (as demonstrated by Yeager) gone astray,[3] is in their refusal to recognize that this impossibility of rational calculation and action under socialism *can* illuminatingly be recognized as arising out of the limitations of the human planning mind—in other words, as consisting in a disastrous knowledge gap which, without market prices for resources, it is impossible to bridge. We may readily concede that Mises did not articulate his calculation problem in terms of knowledge; but this does not in the slightest imply that that problem *cannot* be seen to consist of a knowledge problem. Reasonable interpreters of Mises may disagree on whether (as this writer emphatically believes to be the case) Mises's calculation problem is indeed seen *more* clearly when its knowledge implications are made explicit. But there is no basis whatever for claiming that, in exposing these knowledge implications of the Misesian argument, one is distorting or falsifying that argument.

To be unable to calculate the worthwhileness of a prospective action taken in a market society, is, after all, *to not know the importance to others* of the goods and services one commits to that action, and the importance to others of the goods one will obtain from that action. It is quite true, that Mises pointed out (and Salerno and Rothbard cite this again and again) that the calculation problem would exist even for a socialist planning authority possessing on its desks and in its computer

memories, the fullest technological information of the age, full information on available resource availabilities, and full (and somehow, unanimous) information of the social ranking of the importance of ends. This is because, even armed with such "knowledge" (or, perhaps, precisely because the authority would be engulfed by these floods of information), the members of the authority would still *not know what they would need to know*, in order to calculate. As Leland Yeager has explained, *possessing* all this information is not the same as having *assimilated* it, and having been able to deploy it (whether by computing the solution to simultaneous equation systems, or whatever) to discover the relative values of the relevant resources and products. The members of the authority would not know what one needs to know in order to calculate the worthwhileness of prospective decisions.

For Mises (as Salerno and Rothbard correctly point out) prices are not primarily signals economizing on the cost of *communicating* information.[4] Their social function consists in providing decision makers with meaningful cardinal numbers with which to calculate the worthwhileness of prospective actions. To be "meaningful" we do not require these cardinal numbers to be roughly equal to or close to relevant equilibrium values. We require only that, at each point in time, these cardinal numbers reflect the interplay of the decisions made by the keenest (as well as those less keen) of the entrepreneurial minds in the market economy. In all this, I am in complete agreement with Salerno and Rothbard.

But it is precisely here, I believe, that Salerno and Rothbard have, in properly drawing attention to an underemphasized element in Mises's position on economic calculation, been led into error. The element being here referred to is that, for Mises, even market prices that are very far from their equilibrium values perform a valuable role in enabling entrepreneurs to calculate. Let me emphasize even more starkly the aspect of this element in Mises which appears to have most impressed Salerno and Rothbard: *Even if we could imagine that the equilibrating market process has not yet succeeded in nudging disequilibrium prices at all towards equilibrium, these prices yet perform their social role in making possible economic calculation*. It is apparently this aspect of the Misesian position which has taught Salerno and Rothbard that what makes calculation possible cannot be and is not that knowledge-enhancing process which, for Hayek and other Austrians, constitutes the process of market equilibration. It

followed, for these two scholars, that the Misesian calculation problem under socialism cannot and must not be identified with the Hayekian knowledge problem (which tends to become solved during the course of the equilibrating market process). But there is no reason at all to arrive at such an understanding (or, rather, misunderstanding) of Mises's position.

False Prices and Less False Prices

As cited earlier, Mises certainly did recognize that disequilibrium market prices are, in a sense, "false prices": they reflect erroneous expectations (i.e., erroneous "knowledge") being held by entrepreneurs concerning the true preferences of consumers. It is the equilibrating force generated by the process of entrepreneurial competition, we saw, which for Mises tended to replace false prices by less false prices. We have every reason to believe that, when Mises sees market prices as effective tools for entrepreneurial calculation, his view of prices is, at the very least, rendered even more benign by his understanding of the market process in which *earlier* false prices have tended to have become replaced by less false prices. (Of course this tendency *may* be frustrated by entrepreneurial error in an uncertain, changing world. There is no *guarantee* that today's prices are *necessarily* less false than yesterday's. But this possibility does not eliminate the existence of a systematic process in which entrepreneurial profit-seeking activity identifies those false prices which promise pure profits, and, by grasping those profits, tends to replace them by prices which more accurately reflect the true values to consumers, of resources and products.)

Salerno and Rothbard are right to emphasize that for Mises the prices which prevail at *any* time fulfill their function of rendering economic calculation possible. This, we must insist, is *not* because all prices, at all times, are "market clearing prices," in any sense relevant for our evaluation of the social efficiency of the price system. After all, false prices reflect production plans which *are*, by definition, at variance with the true preferences of consumers. The Misesian insight that all prices, at all times, render economic calculation possible, arises out of two closely related circumstances: (a) at each instant in time, the price offers and bids, and thus also the realized prices, reflect the expectations of the most canny entrepreneurs in the market (so that what may, a day later, with the wisdom of hindsight, indeed be seen as having been false prices, were nonetheless, in terms of

the most perceptive entrepreneurial assessment of the preceding day, at that time expressive of the most judicious readings—the best *knowledge*—of consumer preferences); (b) at each instant in time, current prices *are* the outcomes of processes of entrepreneurial profit-seeking corrections of still earlier false prices; at no time, in the real world, can we say that the corrective market process has not yet begun its work. At each instant, therefore, current market prices reflect the best conceivable estimates of relative consumer preferences. The calculations which entrepreneurs make by reference to such prices (and by reference to such expected future prices), are thus informed by the assessment of the shrewdest of entrepreneurs, operating under the powerful incentive of winning pure profits.

What we wish to stress is that the capacity of market prices to inspire calculative economic activity is based solidly on the extent to which prices do express correct assessments of (i.e., the relevant knowledge regarding) both current and future preferences of consumers, and the current and future production plans of other entrepreneurs. As Mises pointed out in his first statements on the calculation problem (see, e.g., Mises [1922] 1936, pp. 115–17), market prices are not perfect tools in this respect: but they are extraordinarily valuable tools nonetheless. Their value surely lies in the expression of the best available entrepreneurial knowledge concerning market conditions.

It is quite true that for Mises this "best available entrepreneurial knowledge" expressed in current market prices would be valuably useful for calculation purposes *even if* one could imagine these prices *not* already to reflect the corrective entrepreneurial market process which tends to replace false prices with prices less false. But the circumstance that in fact current market prices reflect that corrective market process (and our awareness that Mises did indeed emphasize this circumstance in regard to market prices) should convince us that an appreciation of the role of market prices stated in terms of the "Hayekian" knowledge problem is simply a somewhat differently articulated appreciation for the calculative properties Mises taught us to understand to exist in those market prices.

Some Observations on the Misesian Legacy

Mises had a profound and subtle understanding of the market's operation. In that understanding, the character of the market as a process in which mistaken entrepreneurial judgments tend to

come to be replaced by more accurate judgments (and thus one in which false prices are replaced by less false prices), was a central feature: Hayek, too, had his own understanding of the market's operation. In certain respects, particularly in its articulation of the role of knowledge and discovery, that understanding can be differentiated from that of Mises. *But the centrality of the knowledge-corrective character of the market process for both Mises and Hayek cannot seriously be doubted*. Whatever the differences between a Hayekian articulation of the market process and a Misesian articulation, *the centrality of the notion of the corrective process for both, is the crucially important circumstance*. It is this that should convince us that any talk of a Hayekian "paradigm" which differs fundamentally from the Misesian paradigm should be dismissed as not only reflecting a mistaken doctrinal judgment, but as reflecting a mistaken judgment with potentially catastrophic implications for the future of Austrian economics.

Austrians are a beleaguered minority in the economics profession today. One of the core doctrinal issues separating Austrian economics from the mainstream is that Austrians understand the entrepreneurial character of the market process. We learned this from Mises. From Hayek we learned additional, complementary insights. If we wish to preserve and build upon the Misesian legacy, we must not generate confusion (both among Austrians and their opponents) by exaggerating perceived differences between Mises and Hayek, to the point where the centrally shared insights of both are dangerously obscured.

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[1] Because of Salerno's initiating and prominent role in the "two-paradigm" literature, this section refers primarily to his writings. However, similar statements can typically also be found in the above cited papers of Rothbard and Herbener.

[2] The biting sarcasm employed in this assertion is but a relatively mild example of the rhetorical excesses appallingly to

be found in the “two-paradigm” literature against such writers as Hayek, Lachmann, and others charged with having diverged from the asserted “Misesian paradigm.” I take this opportunity strongly to protest the use of verbal terrorism in Austrian economics. Even if (which is far from being the case) the asserted criticisms of Hayek, Lachmann, and others were valid, there would be absolutely no justification for the manner in which these great economists have been treated in the literature under discussion. The near-demonization of Hayek and Lachmann for alleged deviations from an asserted Misesian orthodoxy is a most distressing phenomenon. If Austrian economists (and the *Review of Austrian Economics*) are to be able to work constructively in the rough and tumble of the intellectual market place, anything approaching rhetorical brawling must once and for all be rejected.

[3] This paper concentrates critically only upon those aspects of Salerno’s and Rothbard’s papers which are directly relevant to our placing the market process at the center of Mises’s system. We do not take up here any criticism of a number of related assertions contained in these papers (concerning: entrepreneurship, uncertainty, the future, alertness, discovery, and coordination) which this writer finds puzzling, contradictory, or otherwise based on possible misunderstanding.

[4] This is the aspect of Hayek’s 1945 paper which the mainstream literature (and now Salerno, et al.) have seen as central to Hayek’s position. This writer has long deplored according centrality to such a “communication” role, and has argued that Hayek’s later work suggests that he, too, saw beyond such a narrow interpretation of the role of prices (see Kirzner [1984] 1952, chap. 8).

A Theory of the Theory of Public Goods

Randall G. Holcombe

A public good, as defined by economic theory, is a good that, once produced, can be consumed by an additional consumer at no additional cost. A second characteristic is sometimes added, specifying that consumers cannot be excluded from consuming the public good once it is produced. Goods with these characteristics will be underproduced in the private sector, or may not be produced at all, following the conventional wisdom, so economic efficiency requires that the government force people to contribute to the production of public goods, and then allow all citizens to consume them. Simple observation of the real world suggests two problems with the application of public goods theory as a justification for government production. First, many public goods are successfully produced in the private sector, so government production is not necessary. Second, many of the goods government actually does produce do not correspond to the economist's definition of public goods, so the theory does a poor job of explaining the government's actual role in the economy. If public goods theory fails as a theory of public expenditure, why is it so firmly entrenched in the economic theory of the public sector? This paper develops a theory to explain the development and use of public goods theory as a justification for government production.

The paper begins by examining the theory of public goods. Public goods certainly exist, in the sense that there are goods that fit the economist's definition of public goods, but production in the public sector is neither necessary nor sufficient for the efficient production of public goods. A model that explains government involvement in the economy is then presented. Within this model, the production of national defense is explained as an institution that enables the government to protect and enhance its own wealth. Following this reasoning, national defense is produced by government because it furthers the private interests of those who run the government, not because it is in the public interest for the government to produce public goods. The model in this paper has more of an economic

foundation than the theory of public goods, because it explains the production of national defense as the result of the rational self-interested decisions of individuals, rather than as a product of a benevolent government that acts in the public interest.

The model is then extended to show that public education serves a similar function by lowering the cost to the government of getting its citizens to further the government's interests. Public education gives the government more control over the educational system, and, more to the point, public education makes educators government employees, so educators have the incentive to further the government's interests. Public education furthers the government's interests by socializing students to make them better (more compliant) citizens, and by teaching a curriculum that portrays the government as an institution that furthers the public interest. Public goods theory is a part of this curriculum.

The first step in developing a theory of the theory of public goods is to examine the idea that goods with public-goods characteristics require government production for efficiency. Public goods theory can then be shown to be wanting as a positive theory of public-sector production. If public goods theory does not explain the activities of the public sector, why was it developed, and why does it remain a core concept in the teaching of public finance? This paper shows how it is in the best interest of those who run the government to promote public goods theory, and shows how educators have been given the incentive to develop and to teach public goods theory.

Public Goods

Economists define a public good as a good having one or both of the characteristics of nonexcludability and jointness in consumption. Nonexcludability means that it is difficult to keep people from consuming the good once it has been produced, and jointness in consumption means that once it is produced for one person, additional consumers can consume at no additional cost. Goods that are joint in consumption are also called collective-consumption goods or non-rival consumption goods, and the terms are used interchangeably here.

The most precise technical definition of a public good, and the definition that is most often referred to by economists, is Samuelson's definition, which says that a public good is a good that, once produced for some consumers, can be consumed by

additional consumers at no additional cost. This is the jointness in consumption referred to above.[1] While this is the standard economist's definition of a public good, economists have taken some liberty with the language in formulating the definition.[2] While economists give it a formal technical definition, in verbal analysis "public good" is often used in an ambiguous manner.

A dictionary defines public as "of, related to, or serving the community." For most people who hear it, including economists, the term conjures the image of a good available for all citizens to consume, and common examples used by economists, such as national defense and highways, are suggestive of the idea that a public good is a good produced by government, and generally available for the benefit of its citizens. Indeed, this more commonsense definition of public good was generally accepted by economists until Samuelson made the definition more precise, and at the same time altered its meaning.[3] Thus, on the one hand, professional economists define the term public good as something with the technical characteristics of jointness in consumption and nonexcludability. When they use the term in a discussion of the public sector, however, it conveys the connotation of government production. Indeed, when Samuelson rigorously defined the term, he also gave reasons why public-sector production is necessary for efficiency, creating a close link between the dictionary definition of the term and Samuelson's formal definition. The implication is that the technical definition is just a more rigorous variant of the dictionary definition.

The common name given to Samuelson's rigorous definition suggests that public goods are government-produced goods, implying that goods with the characteristics of jointness in consumption and nonexcludability ought to be produced by government. Perhaps this bias in the name is obvious, but it is an integral part of the application of the theory of public goods. An economist argues that a good has the characteristics of either jointness in consumption or nonexcludability, and then, because that makes the good a public good, implies that the good should be produced in the public sector.

Is a public good a good that is produced in the public sector, or is it a collective consumption good, or a nonexcludable good, or all of the above? The nomenclature leads one to believe that there is good reason for goods with publicness characteristics to be produced in the public sector. Despite the deceptive use of language in the naming of public goods, the remainder of this paper will stick closely to the economist's definition of jointness

in consumption and nonexcludability, and will examine critically the notion that public goods are more efficiently produced in the public sector.

Public Goods and Public Production

The name public goods suggests public-sector production, and Samuelson argued the merits of public-sector production when he first formalized the theory of public goods.[4] Samuelson argued that there is no good revealed-preference mechanism for public goods, so they will not be produced efficiently, if at all, in the private sector. Public-sector production is thus required for efficiency. Note that even the tides of Samuelson's articles show the implication that public goods, as he defines them, must be produced in the public sector. The tides of both articles refer to a theory of public expenditure rather than a theory of public goods.

In his second article, Samuelson recognized that there could be other definitions of publicness, and other theories of public expenditure, but reinforced the idea that goods with the collective-consumption characteristic he described would have to be produced in the public sector for efficiency reasons.[5] Because the idea is so closely associated with Samuelson, this characteristic of jointness in consumption is often referred to as Samuelsonian publicness. In the face of Samuelsonian publicness, markets fail to allocate resources Pareto-efficiently, and Samuelson's ideas on market failure were combined with others pursuing parallel lines of reasoning in other areas to generate a substantial literature on market failure. Bator synthesizes this literature by showing that there are numerous ways in which markets fail to be efficient, which points toward a policy of government intervention to correct the market failures.[6] By the end of the 1950s, public goods theory, as developed by Samuelson, was an integral part of public-expenditure theory.

The fact that some goods exhibit Samuelsonian publicness is not a matter of dispute, but the idea that Samuelsonian public goods must be produced in the public sector to allocate resources efficiently does not logically follow from the Samuelsonian publicness characteristic. One logical problem is that even if market production fails to reach the theoretical ideal of Pareto efficiency, there is no guarantee that government production will be any more efficient than private production. As Buchanan explains, if Pareto efficiency is used as the benchmark for

success, then government can fail to allocate resources efficiently in the same way that markets can.[7] Thus, one would have to compare market versus government production by evaluating the real-world institutions in each case, rather than comparing the theoretical efficiency of Pareto optimality with the real-world performance of markets.

A second issue is the problem of revealed preference, which was well-recognized by Samuelson. If the market fails to get a true measure of revealed preference for public goods, can the government expect to do any better? Writers such as Tiebout, Clarke, and Tideman and Tullock have described how public-sector mechanisms could be designed to efficiently allocate public goods, helping support public goods theory as a foundation for government production.[8]

But revealed preferences exist in the private provision of Samuelsonian public goods as well. Minasian describes the advantages of revealed preferences for public goods by examining the market for television broadcasts.[9] If the broadcasts were financed by tax revenues, produced by the government, and distributed free of charge to viewers, then the government would have no way of telling which broadcasts were more valuable to its viewers. But if markets distributed the broadcasts, then producers could use market indicators if viewers paid for each viewing (as they do with motion pictures), or if advertisers paid and wanted their advertising to be shown with broadcasts that appealed to their consumers.[10]

If Samuelsonian public goods are sold on the market like movie tickets, then some inefficiency would result from the exclusion of individuals who valued the good, but by less than the market price. This inefficiency would have to be weighed against the efficiencies generated by the market's revealed-preference mechanisms. The advantages are much broader than just indicating what type of motion picture is most valuable to viewers. Innovations in markets, whether regarding locations, product types, or potential new markets, are best seen by those who work in those markets, and who have the potential to profit from innovations. The advantages of market production in this context have been described by Hayek and Kirzner[11] among others, and at least establish that Samuelsonian publicness by itself does not create a presumption that public production is more efficient than private production.

Yet another obvious problem with producing public goods through tax-financed public-sector production is that the tax

system imposes an excess burden on the economy. The excess burden of taxation includes those costs of the tax system over and above the revenues collected, such as the disincentives caused by taxes, and the administrative and compliance costs that the tax system produces. Thus, at the very least, any inefficiencies of private-sector production would have to be weighed against the inefficiencies produced from using the tax system to raise revenue; yet the excess burden resulting from public finance is rarely mentioned when the public-goods argument is used to justify public-sector production.

A second characteristic of publicness is nonexcludability. A good is nonexcludable if it is prohibitively costly to keep people from consuming the good after it has been produced. The problem with nonexcludable goods is that if consumers cannot be excluded from consuming them, they will free ride and consume without paying, again resulting in underproduction of the good. Note that Samuelsonian publicness and nonexcludability are two completely distinct characteristics. A good could be Samuelsonian public, yet excludable, or nonexcludable but Samuelsonian private. For example, cable television systems often have premium channels which are scrambled to exclude non-paying customers. The premium channels could be extended at no additional cost to all viewers who have cable, so are Samuelsonian public, but the costs of exclusion are low enough that the cable company can extend the premium channels only to those who pay.[12] Likewise, Samuelsonian private goods that are nonexcludable are sometimes referred to as common-pool goods.[13]

In practice, there is a tendency to confuse Samuelsonian public goods with nonexcludable goods, partly because typical examples of public goods share both characteristics. However, one characteristic does not imply the other, and each characteristic has its own separate argument regarding the inefficiency of private production. For Samuelsonian public goods, it is inefficient to exclude potential consumers who place any positive value on the good, whereas for nonexcludable goods, free riders result in a marginal value of the good to consumers that exceeds marginal cost. For Samuelsonian public goods, inefficiency occurs if people are excluded, whereas the inability to exclude people creates the inefficiency with nonexcludable goods. In both cases, underproduction results when compared to a theoretical ideal. However, as noted above, incentives in the market may be able to improve resource

allocation when compared to government production, meaning that there can be no presumption that public production is more efficient than private production for public goods of either type.

Real-World Production of Public Goods

In practice, the market produces many nonexcludable Samuelsonian public goods. Television and radio broadcast signals provide examples of goods that are both nonexcludable and Samuelsonian public. Broadcasts are not sold directly to the viewing public in most cases but are financed through advertising, and advertisers can be excluded. This shows how market arrangements can be devised in innovative ways to overcome publicness problems, but adherents of public goods theory are critical of this example of the private production of a public good because they argue that it is not the public good that is sold, but rather the excludable good. Still, the example is worth noting because it shows the way that markets can respond by designing real-world solutions to theoretical problems.

Another example of a public good produced in the private sector is microcomputer software. Once the program is written, additional users can copy the program, making it available to additional users at no cost to existing users, so microcomputer software is Samuelsonian public. Because it is so costly to prevent such copying, it is also nonexcludable. Yet Bill Gates became one of the richest men in the world in a period of about a decade, selling a public good. This example is all the more interesting in the middle 1990s because, while microcomputer software is a public good, the computers that run the software are private goods, and in recent years the companies selling the public good on the market have been much more profitable than those selling private goods to the same markets. Given the significant advances that have been made in software, few people would argue that software would be more efficiently produced by the government than by the private market. The private market has been very successful at producing this public good.

Consider microcomputer software within the context of the problems that supposedly arise in the production of public goods. Because of jointness in consumption, any positive price inefficiently excludes some consumers, but the fact that it is difficult to exclude users who copy the programs of others mitigates this problem, at least to a degree. Furthermore, the positive price also provides a market guide to the value of the

program, pointing the market toward production that better satisfies consumer demands. This enhances efficiency. Because a public good is nonexcludable, public goods theorists argue that free riders will keep producers from profiting from the production of the public good. Yet, legal institutions arise to mitigate this problem and provide revenue to the producers, and the relative profitability of software manufacturers to hardware manufacturers shows that the free-rider problem has not materially hindered the industry.[14] When judging the efficiency of private production of public goods, it must be done relative to alternative real-world institutions, rather than relative to some abstract theoretical ideal such as Pareto optimality. The theoretical arguments show how market incentives lead toward the efficient production of public goods, and an examination of the software industry provides an example of how this works in the real world. Could anyone think that software would be cheaper or more productive if it were produced by the government rather than by private firms?

When considering the software example, doubters are quick to give reasons why software can be produced by private markets while other goods, like national defense must be produced by government. Any differences between software and national defense are irrelevant to the present discussion, however. The issue is not whether national defense, or any other specific good, can be produced by markets, but rather whether public goods, defined by economic theory as nonexcludable collective consumption goods, can be efficiently supplied by markets. Examples such as software and radio broadcasts show that they can. Thus, if government production of national defense (or any other good) is necessary for efficiency, it is not because those goods are public goods. Using the economist's definition, public goods can be and are supplied efficiently by markets. Theoretical arguments show why this can be so, and examples demonstrate that it actually happens.

Public Goods and Market Production

The preceding sections have covered a substantial amount of ground, with the intention of making a limited point. The point is that from the standpoint of economic theory and by looking at real-world evidence, there is no reason to presume that government production is necessary to efficiently produce nonexcludable Samuelsonian public goods. From a theoretical

perspective, market production of public goods provides the benefits of revealed preference for demands and incentives to satisfy consumer demand at low cost. Innovation is likely to be greater for private rather than public production, following the arguments of Hayek and Kirzner.[15] Further, private-sector production avoids the cost of the excess burden of taxation. Finally, there are well-known incentive problems that stand in the way of efficiency for any type of government production. Real-world evidence shows that nonexcludable Samuelsonian public goods, like radio broadcasts and microcomputer software, are efficiently produced in the market. Indeed, in locations such as Britain and Cuba, where the government produces radio broadcasts, there is a black market for private radio broadcasts, indicating that private provision can thrive even when subsidized public provision is already taking place.

Note the limited scope of this argument. It does not say that there is no reason for the government to produce certain goods, such as national defense or roads or education. It merely says that if there is a reason, it cannot be that these goods are nonexcludable Samuelsonian public goods. Both theoretical and practical evidence shows that the market can efficiently produce some nonexcludable Samuelsonian public goods, so publicness by itself cannot be the reason for government production. Private markets can produce public goods, both in theory and in reality.

Is Government Production a Public Good?

An examination of the expenditures of governments in the United States shows that the largest single category of government expenditure is redistribution. At the federal level, national defense is the second-largest category of government expenditure, while at the state and local level, education is the major expenditure category. Governments undertake an array of other expenditure programs, but because public goods theory has been put forward as a theory of public expenditure, it is reasonable to ask whether government output is a public good. In other words, can public goods theory be used to explain what the government actually does?

The best claim that one could make that redistribution is a public good is that it may provide a nonexcludable benefit to those who give. The argument goes as follows. People want to be charitable because they want to see an improvement in the well-being of those who are disadvantaged. However, if one person

gives to charity, another can free ride off this donation by allowing the contributions of others to improve the situation of the disadvantaged. Both the giver and the free rider receive the same benefit in terms of seeing an improvement in the well-being of the recipient.[16] The donation itself is a private good to the recipient, because a dollar given to one recipient is a dollar less available to another, but it may be a public good among potential donors. Thus, in order to provide the optimal amount of redistribution, the government forces people to contribute.

Empirical verification of this argument might be difficult, because taxpayers arguing that they did not want to contribute as much as they are to redistribution might be lying in order to try to become free riders. However, one must pause to consider the amount of redistribution that takes place in the United States to those who are relatively well-off. The poor outside the United States are so much worse off than those inside the United States that one must wonder what kind of a utility function these altruistic donors have that makes them so charitable to those within the nation's borders but so unsympathetic to those in other parts of the world (and sometimes just across the border). Furthermore, the bulk of redistribution efforts in the United States goes toward those who are not among the lowest in income, and sometimes are among the wealthiest members of the population.[17]

If the argument that redistribution is a nonexcludable good is tenuous, it should be apparent that redistribution is not a Samuelsonian public good. In Samuelson's framework, it is a pure private good. A dollar's worth of resources redistributed to one person reduces the amount of resources available to others by a dollar, so consumption is completely rivalrous. Public goods theory cannot explain redistribution, the largest economic activity of the contemporary public sector.

One might argue that government coerces taxpayers to contribute to redistribution programs because redistribution is a public good, but an alternate hypothesis is that government redistribution goes to those who have political power. This would explain why redistribution would go toward people in this country when others outside the country, who are much worse off, get none, and would explain why much redistribution goes toward those who are not financially disadvantaged. Conventional wisdom, for example, suggests that politicians are reluctant to tamper with Social Security benefits because of the political power of elderly Americans. This conventional wisdom

lines up with the political-power theory of redistribution, not the public goods theory.

The two other major products of government, national defense and education, are susceptible to the same types of questions. Most people unthinkingly associate defending a nation's borders with defending the individuals within those borders, but Hummel and Lavoie show the fallacy of this argument.[18] Once the distinction is pointed out, it becomes obvious that national defense protects the government's sovereignty, and only peripherally protects the individual citizens of the government. National defense and education are both considered at greater length below. Other public-sector output, such as roads and police protection, also have been claimed as public goods. While they will not be examined specifically in this paper, the private production of these goods has been analyzed by other authors who have shown the advantages of private-sector production.[19]

The concept of a public good is vague enough that many goods might in some sense be called public. However, the concept of Samuelsonian publicness has a precise mathematical definition that allows empirical measurement of Samuelsonian publicness. If a good is Samuelsonian public, the marginal cost of adding an additional consumer is zero, and this can be tested with data on the cost of public goods. Empirical studies on many goods confirm that government output empirically is a private good, not a public good.[20] Legislation—the cost of passing laws—would seem to be about as public as any governmentally-produced good, because laws passed for one person can costlessly cover others, yet when subjected to an empirical test of Samuelsonian publicness, even legislation turns out to be primarily a Samuelsonian private good.[21] One might debate about what one means by the term public good, but if one takes the precise Samuelsonian definition, empirical evidence shows that the government produces private goods, not public goods.

A Positive Model of Government

The theory of public goods is on shaky ground if it is to be used either to explain or justify public-sector production. The previous two sections have shown that, first, both theoretical and empirical evidence show that the private sector can produce public goods efficiently, and second, that most of what the government produces is not a public good anyway. Note the

limited nature of this claim. The argument says nothing about whether it is efficient to produce certain goods in the public sector, but only demonstrates that public goods theory fails on both theoretical and empirical grounds as an explanation for what goods are produced, or should be produced, in the public sector. How can public-sector activity be explained from an economic standpoint? This section describes a positive model of government to use as a foundation for understanding the government's role in the production of goods, services, and transfers. A more complete description of the model outlined here is found in Holcombe, *The Economic Foundations of Government.*[22]

Recent interest in the contractarian model of government has promoted the idea that governmental institutions can be designed for the mutual benefit of all citizens, reinforcing the public goods view of public production.[23] These models stand on an economic foundation in the sense that governmental institutions are developed as a result of mutually-beneficial exchange and gains from trade, but have been criticized because the contractarian model is based on agreement as the foundation for government.[24] As a matter of fact, governments historically have been imposed on some individuals by others, and continue to hold their power by force, not agreement. No matter how much a person might actually agree with the goals and purposes of government, ultimately the government uses the threat of force to create compliance with government rules.[25]

Consider Buchanan's model of a social contract being negotiated from the hypothetical starting point of anarchy.[26] In Buchanan's model, all must agree that they are better off with than without the social contract, which constitutes a conceptual agreement with the contract. In fact, in a Hobbesian anarchy, nobody would be very well-off. The weakest would be subject to predation by the strong, but even the strong would find little to take from the weak, because the weak would have little incentive to produce if they had no way to retain any benefits from their production. In this situation, a Pareto-superior move could be made in which the strong make a believable promise to the weak that if the weak just give them a fixed percent of their income—say 30 percent—the strong, in exchange, promise not to take anything more from them.

Such a promise makes both the weak and the strong better off because the weak now get to keep 70 percent of what they produce rather than having everything taken from them, while

the strong get everything they produce plus 30 percent of what the weak produce. While this outcome would likely fail the Rawls "veil of ignorance" test,[27] it more realistically depicts the way that, throughout history, some people have conquered others in order to enhance the wealth of the conquerors. Prior to the agricultural revolution, bandits preyed on groups of individuals, but the advent of agriculture tied individuals to fixed locations. It then became more efficient for those bandits also to tie themselves to fixed locations in order to continue preying on those who were producing, and also to try to prevent competing bandits from taking their wealth while the original bandits were elsewhere. The strong become the government, while the weak become the government's citizens and pay them tribute.

The citizens of this government are the source of the government's wealth, but the existence of a government creates an opportunity for other powerful individuals to overthrow the government to capture that wealth. Thus, the government has an incentive to protect its citizens, because it is protecting its own source of income. Citizens of the government pay their taxes, and in exchange the government protects them because the citizens produce the government's income. There is a natural exchange of protection for tribute, which is the fundamental exchange relationship that binds a government with its citizens. The citizens benefit because they receive protection, and they have an incentive to comply because the government threatens to use force against those who do not comply. The government benefits because it receives its revenue from the citizens, and it has an incentive to provide them protection because it is protecting its own source of income.

This model explains the government's activities as a function of the private interests of those who run the government. In this model, the government has an incentive to constitutionally constrain its taxing power, because by guaranteeing its citizens that they profit from their productivity, citizens will be more productive, and there will be more for the government to take. Constitutional constraints benefit the government, in contrast to the contractarian paradigm where constitutional constraints are imposed on the government by citizens who want to constrain government power. The government has an incentive to protect the rights of its citizens to ensure their productivity. The government then has an incentive to engage in other forms of public-sector production because it can assign itself a monopoly and receive monopoly profits, further enhancing the profitability

of governing.

Democratic election of government leaders, with strong advantages to incumbents, also makes sense as a way of maximizing government profit. By allowing elections, government leaders channel the resources of potential challengers into elections rather than into violent overthrow. People who want to take over dictatorships must do so by force, creating a threat to dictators, and requiring that resources be devoted toward protecting the government from revolutions. Democracies can save those resources, which makes governing potentially more profitable as well as less physically threatening. [28] Introspection helps reinforce this idea that democracy is desirable for political leaders. Which would you rather be, a democratically-elected political leader, or a dictator who holds on to the position by threat of force?

Holcombe develops this model of government in further detail, but this overview is sufficient for the development of a theory of the theory of public goods.[29] The point is that economic theory suggests that people are likely to act in ways that further their own interests rather than the general public's interest. The public goods theory of public expenditure suggests that the government acts in the public interest, but an alternative view is that government activities are undertaken for the best interests of those who govern. Fortunately, because the income of the government comes from the productivity of its citizens, there is often considerable overlap, so that what is in the interest of government's citizens is also often in the best interest of those who govern, but from an economic standpoint, it is still more satisfying to explain the government's activities in terms of the interests of those who make public-sector decisions, rather than in terms of the public interest.

National Defense

The prime example of a public good in traditional public finance theory is national defense, and the model of government just described presents an alternative to the public-goods explanation for government provision of national defense. As already noted, the market can produce public goods efficiently, both in theory and in practice, so even if national defense is a public good, the market that produces public goods like television broadcasts and microcomputer software could also produce other public goods. Perhaps there are other good reasons why the market could not

produce national defense, but the earlier analysis of public goods theory, buttressed by real-world examples, should dispel the myth that public goods have to be produced in the public sector. In short, public goods theory cannot explain why the government produces national defense.

The exchange model of government described in the previous section explains the production of national defense as a result of the self-interest of those in government. The government gets its income from its citizens, so it has an incentive to protect its source of income. Government-income maximization as a motive for national defense also has the advantage that it clearly explains why nations engage in all kinds of military activities around the world when the nation's citizens are in no danger from foreign invasion. Why did the U.S. government invade Kuwait in 1991? The invasion of Kuwait by Iraq posed little threat to U.S. national security, but did pose a threat to U.S. income. The exchange model of government has the further advantage that it does not rely on the public spiritedness of those in government to produce benefits for its citizens. Rather, it shows the production of national defense as an activity that benefits those in government directly by protecting their source of income.

On many grounds, the theory that national defense is a product of the exchange of protection for tribute is more persuasive than the theory that government produces national defense because it is a public good. The government produces national defense because it protects the government's taxpayers, so protects the government's source of income, and benefits those who earn their incomes in government. This explains the government production of national defense, but is only a start toward describing a theory of the theory of public goods.

Legitimacy as an Asset of the State

If government does produce national defense in order to protect its source of income, it will want to protect its income at the lowest cost possible. When considering national defense, this means protecting its income from foreign aggressors, but governments find threats at home as well as abroad. The government will also want to minimize the costs it incurs in gaining compliance of its own citizens with its policies. Through the use of intimidation and force, governments can get citizens to comply with its desires. Tax evaders face tax court and jail, for

example, and may have to play IRS benefit concerts, like Willie Nelson, to pay back taxes.[30] The government can save resources, however, if it can get citizens to want to voluntarily comply with its policies. In order for citizens to want to help the government, government action must appear to its citizens to be legitimate.

Democratic government itself is a mechanism for producing legitimacy because if people vote for their leaders, then their leaders have the legitimate role of acting as representatives of the citizens. Citizens may not agree with their representatives' actions, but they are inclined to agree that the representatives have the right to act for them because they were elected through generally agreed-upon electoral institutions. Similarly, constitutional constraints that specify the role of government, along with government apparatus such as courts, a division of powers, and a well-defined procedure for undertaking government action all add to the perception of legitimacy on the part of government leaders. The more legitimate the government appears, the easier it is to get citizens to comply. Thus, political institutions have symbolic value in addition to their purely practical value as a collective decision-making mechanism.[31]

Public Education and the Legitimacy of Government

Government benefits if it is perceived as a legitimate institution because it is then less costly for those in government to persuade the government's citizens to comply with its mandates. Thus, the government has the incentive to create the impression among its citizens that its actions are legitimate. It can do so by creating institutions that give the impression of adherence to generally agreed-upon rules, and by creating democratic processes that foster the image of consensus in collective decision-making.[32] Government can further reinforce its image of legitimacy by creating propaganda that brainwashes citizens to respect government institutions and processes.

As a simple example, the right to vote allows democratic selection of leaders, which brings about many advantages. Among those advantages is that it conveys legitimacy to the decisions that representatives make because, supposedly, those decisions are representative of the representatives' constituents. Thus, the government has an incentive to encourage voter turnout in order to foster the image that political leaders are

chosen by the people, and has an incentive to instill patriotic feelings about the fairness and representativeness of the process by which leaders are chosen. This makes the government appear more legitimate, and makes it less costly for government to get its citizens to comply with its wishes.

In contrast, the ideas that one voter's vote makes no difference because it will not change the outcome of an election, that voters are therefore rationally ignorant of most political issues, and that the political decision-making process is dominated by special interests rather than representative of the general public interest reduces the appearance of legitimacy, and can make it more costly for government to create compliance with its policies. For this reason, Kelman argues against public-choice theory, reasoning that teaching it erodes public spiritedness because it makes the government appear less legitimate.[33]

If the perception of legitimacy is important to a government, and if that perception can be influenced by controlling the flow of ideas to the government's citizens, then the government has an incentive to take control of the institutions that influence the ideas of its citizenry. One has no trouble understanding why dictatorships demand government control of the mass media, or why freedom of the press is viewed as a fundamental check on government's power. However, such heavy-handed controls make it obvious to citizens that they cannot trust the information they receive. Governments can still control the flow of ideas without controlling the mass media, if they can control the education system. The education system exposes students to ideas, sets up a system of rewards and punishments to encourage students to retain ideas approved by the system, and when the university education system is included, also undertakes research to develop new and improved ideas.

Even in centrally-planned economies that control the mass media, family and friends provide a network through which individuals can receive information and ideas, which then can be evaluated on their merits. This is a difficult network to control. The education system has an advantage over these other methods of information dissemination, however, because it provides an incentive for the student to retain the information approved of by the system. Successful students are those who are best able to arrive at institutionally-approved answers.

The challenge to the state is to make institutionally-approved answers state-approved answers, and the best way to

accomplish this is to take over educational institutions and make them state-run enterprises. By nationalizing the education industry and making teachers state employees, teachers naturally have the incentive to side in favor of the state whenever there is a question. Teachers become tools of state propaganda, and often explicitly so. It is not uncommon to argue that one of the main goals of public education is socialization, and that schools should make students into good citizens. The perception of legitimacy of the government is thus enhanced through public education.

The tenure system is an integral part of the nationalization of education. Without tenure, teachers could lose their jobs and end up back in the private sector. Thus, teachers would have more of an incentive to examine the relative merits of the public versus private sectors. Tenure guarantees teachers a government job for life, reinforcing their pro-government sentiments. Support of tenure as a method of preserving academic freedom may have some merit for college professors, but this does not explain why librarians receive tenure, or why elementary school teachers receive tenure. Indeed, while tenure is the norm in both public and private universities, in elementary and secondary education the norm is that public school teachers have tenure while private school teachers do not. Teachers with guaranteed lifetime government jobs are more likely to be sympathetic to government propaganda, and thus help reinforce ideas about the legitimacy of government action.

State financing of institutions of higher education includes a substantial research component. The relationship between research in the sciences and government interests is obvious enough that it needs no lengthy discussion, because university science research and defense technology are so closely related (and often controversial for that reason). But why would the state benefit from subsidizing research in history, languages, or social sciences? These disciplines develop ideas which can enhance the appearance of the legitimacy of the state, or detract from it. Ideally, from the perspective of the state, research in social sciences and related areas would bolster the appearance of legitimacy, making it less costly for the government to gain compliance of its citizens. By making researchers government employees, the researchers have an incentive to push the agenda of the state.

The state could force researchers to produce research that only supports the state's positions on issues, but the state is much better off if researchers voluntarily want to enhance the

legitimacy of the state in their research. The state benefits because, first, it is cheaper to get researchers to go along if they want to go along, and second, the resulting research will have more credibility if it is not forced, further enhancing the legitimacy of the state. Thus, public educational institutions benefit the government by teaching concepts that enhance the legitimacy of the state, and by undertaking research that furthers the appearance of legitimacy. Public employees have the incentive to promote ideas that enhance the appearance of legitimacy of the state, but they are not forced to do so.

One justification traditionally given in the economics literature for government production of education is that there are spillover benefits from education. We all benefit from living in a more educated society, so individuals have an incentive to underconsume education. The remedy is public education. Note that if the problem were really just that individuals have insufficient incentive to obtain education, a subsidy would internalize the externality, and public schools would be unnecessary. Indeed, private schools are often criticized despite their superior ability to produce academic achievement, because private schools do not socialize students as well as public schools. While individuals do have the freedom to choose private schools, they are not subsidized to the extent that public schools are, so one must conclude that the government's interest is in public production rather than just encouraging more educational activity.[34]

The view that government produces public education to disseminate propaganda to enhance its appearance of legitimacy, and thus to lower the cost of citizen compliance, is more compelling than the traditional argument that the government is internalizing an externality on two grounds. First, it is consistent with the differential treatment of private schools. Second, it shows that the state has the economic incentive to produce education. Public education is not produced because the government wants to do good things for its citizens; rather, it is produced because government wants to control their ideas to enhance its power.

Public Goods and the Perceived Legitimacy of Government

Having described a model of government and explained the rationale for public education within that model, a theory of the

theory of public goods is now relatively straightforward. The theory of public goods is a product of academicians working within the state-subsidized higher-education system. Public goods theory justifies government production on the grounds that the citizens of a government benefit from that production. Individuals who believe this theory are more inclined to view government activity as furthering the well-being of the government's citizens, and thus are more inclined to view such government activity as legitimate. The theory of public goods furthers the government's own interests, and educators, as a part of the state-controlled education system, have an incentive to promote the theory in order to support the state that supports them.

While an overwhelming majority of educators work at government institutions, a minority are employed by private schools. The government has so thoroughly taken over the education industry that those in private institutions have an incentive to adopt the same views as their government-employed colleagues. For one thing, private institutions depend on the government for research funding, student loans, as well as scholarships, and for tax laws that favor private donations to the institutions. Second, there is much movement back and forth from public to private institutions as faculty change jobs, blurring the distinction. Third, academic disciplines rely on a consensus to determine what ideas have merit for publication in scholarly journals, for student textbooks, and even for professional acceptability. Thus, by directly running the vast majority of institutions of higher learning, and by controlling others through grants, scholarships, and other financial means, the government has bought control of the production of ideas, including the theory of public goods.[35] Scholars have an incentive to accept the ideas of the mainstream of their profession or risk a loss of academic stature.[36]

Public goods theory is a product of a state-dominated higher-education system, and is used to bolster the perception of legitimacy of government action. The principles of economics suggest that people tend to act in order to further their own self-interests, and the model presented in this paper has shown how self-interested behavior can explain the existence of government, and can explain why government produces public goods such as national defense and education. Public goods theory, in contrast, explains the government production of public goods as a result of a benevolent government acting in its citizens' interests, to

maximize social welfare. Based on simple economic criteria, a theory of government action based on altruistic behavior should not hold up as well as one based on self-interest. Yet, academic economists accept and promote public goods theory because, despite its anti-economic foundation as a positive theory of government action, its acceptance helps support the public sector that in turn supports academic economists.

Conclusion

Public goods theory is both inadequate and inappropriate as an explanation of public expenditure. The activities undertaken in the public sector cannot be understood using the theory of public goods, following either of two lines of reasoning. First, there is no reason to believe that public goods can be produced more efficiently in the public sector than in the private sector. On theoretical grounds, there are many reasons why private-sector production of public goods has efficiency advantages over public-sector production, including the ability to reveal consumer preferences for the good, the elimination of the excess burden of taxation, and the existence of a profit motive for private sector producers. Empirically, we observe many public goods that are successfully produced in the private sector, ranging from television and radio broadcasts to microcomputer software. Therefore, identifying a good as a public good is not sufficient to argue that efficiency considerations require public-sector production. Second, using the formal economic definition of publicness, government output is not a public good anyway. Empirical studies of public sector output show that when the rigorous definition of Samuelsonian publicness is used to characterize public-sector output, public-sector production does not have the characteristic of jointness in consumption that was identified in theory by Samuelson. Because empirical evidence shows that government output fails the test of publicness as economists define the term, public goods theory cannot be used as a basis for explaining or justifying public expenditures. Yet, the theory of public goods persists as a justification for government production.

The persistence of the theory of public goods makes sense if the theory of public goods is considered as a tool of the government to justify the legitimacy of its activities and make it less costly to get citizens to comply with its wishes. The theory is promulgated by the state-supported education system, giving

educators, as employees of this state-supported industry, an incentive to promote the theory of public goods. This all-purpose justification for government activity serves the government well by arguing that its activities are legitimate means of enhancing social welfare, in order to create ideological support for the public sector. The theory of public goods does not do a very good job of explaining what the government actually does, or should do, but can be better understood as a tool that the government employs for its own benefit.

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[1] Paul A. Samuelson, "The Pure Theory of Public Expenditure," *Review of Economics and Statistics* 36 (November 1954): 387–89; and idem, "A Diagrammatic Exposition of a Theory of Public Expenditure," *Review of Economics and Statistics* 37 (November 1955): 350–56.

[2] Randall G. Holcombe, *Public Finance: Government Revenues and Expenditures in the United States Economy* (St Paul, Minn.: West Publishers, 1996), esp. chap. 5. This is an undergraduate public-finance textbook which discusses and explains the definition of public goods in detail, and raises some of the questions about public goods that are the subject of this paper.

[3] Richard A. Musgrave, *The Theory of Public Finance* (New York: McGraw-Hill, 1959), p. 44. In his classic public-finance treatise, Musgrave uses a somewhat tautological definition that fits the pre-Samuelson concept, defining public goods as "goods the inherent quality of which requires public production." He gives education and the military as examples, and defends them in a commonsense way by noting that there are compelling reasons for having both produced in the public sector. Of course, one might disagree with his assessment, but the point here is that prior to Samuelson's definition, public goods were thought of more generally (and less rigorously) as goods that are produced by government See also the discussion by Dennis Epple and Richard E. Romano, "Public Provision of Private Goods," *Journal of Political Economy* 104, no. 1 (February 1996): 57–84, on private goods produced by government, and how the mainstream

economic literature has been won over to Samuelson's definition, and away from Musgrave's.

[4] Samuelson, "The Pure Theory of Public Expenditure"; and idem, "A Diagrammatic Exposition of a Theory of Public Expenditure."

[5] Ibid.

[6] Francis M. Bator, "The Anatomy of Market Failure," *Quarterly Journal of Economics* 72, no. 3 (August 1958): 351–79.

[7] James M. Buchanan, "Public Finance and Public Choice," *National Tax Journal* 28, no. 4 (December 1975): 383–94.

[8] See Charles M. Tiebout, "A Pure Theory of Local Expenditures," *Journal of Political Economy* 64 (October 1956): 416–24; Edward H. Clarke, "Multipart Pricing of Public Goods," *Public Choice* 11 (Fall 1971): 17–33; and T. Nicolaus Tideman and Gordon Tullock, "A New and Superior Process for Making Social Choices," *Journal of Political Economy* 84 (December 1976): 1145–60.

[9] Jora R. Minasian, "Television Pricing and the Theory of Public Goods," *Journal of Law and Economics* 7 (October 1964): 71–80.

[10] Samuelson obviously does not agree with Minasian, but the issues involved in this debate are worth careful consideration, see Paul A. Samuelson, "Public Goods and Subscription TV: Correction of the Record," *Journal of Law and Economics* 7 (October 1964): 81–83.

[11] See Friedrich A. Hayek, "The Use of Knowledge in Society," *American Economic Review* 35, no. 4 (September 1945): 519–30; and Israel M. Kirzner, *Competition and Entrepreneurship* (Chicago: University of Chicago Press, 1973).

[12] Exclusion costs are paid by most vendors, whether they are selling public or private goods. Locks on vending machines and security guards at retail stores are resources employed to exclude non-paying customers from consuming the goods.

[13] Private arrangements can also be made to allocate nonexcludable but Samuelsonian private goods. For a discussion see Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (New York: Cambridge University Press, 1990).

[14] An interesting subject of inquiry, but beyond the scope of the present paper, is the institutional and legal structure within which the market provides incentives for the production of public goods. Neoclassical public goods theory is designed in a static equilibrium setting that ignores the institutional structure

of exchange and the process by which contracts are written to encourage parties to engage in mutually-beneficial production and exchange.

[15] Hayek, "The Use of Knowledge in Society"; and Kirzner, *Competition and Entrepreneurship*.

[16] This argument is expressed by Harold M. Hochman and James D. Rogers, "Pareto Optimal Redistribution," *American Economic Review* 59 (September 1969): 542–57.

[17] The largest redistribution program in the United States is Social Security, which redistributes regardless of need. The same is true of farm price supports and other programs. For a discussion of the idea that most redistribution comes from middle income people and goes to middle income people, see George J. Stigler, "Director's Law of Public Income Redistribution," *Journal of Law and Economics* 13, no. 1 (April 1970): 1–10.

[18] Jeffrey Rogers Hummel and Don Lavoie, "National Defense and the Public Goods Problem," *Journal des Economistes et des Etudes Humaines* 5, nos. 2/3 (June/September 1994): 353–77.

[19] Murray N. Rothbard, *For a New Liberty* (New York: Macmillan, 1973) gives a good explanation of how the private sector is a superior alternative to government in all cases, and defends the idea of an orderly anarchy. Bruce L. Benson, *The Enterprise of Law: Justice Without the State* (San Francisco: Pacific Institute, 1990) gives a detailed discussion of the evolution of private law, showing its advantages over public-sector legal systems.

[20] A discussion of the literature, with empirical tests for many local public goods, appears in R.A. Gonzalez, T.S. Means, and S.L. Mehay, "Empirical Tests of the Samuelsonian Publicness Parameter: Has the Right Hypothesis Been Tested?" *Public Choice* 77, no. 3 (November 1993): 523–34.

[21] See Randall G. Holcombe and Russell S. Sobel, "Empirical Evidence on the Publicness of State Legislative Activities," *Public Choice* 83, nos. 1/2 (April 1995): 47–58 for empirical evidence.

[22] Randall G. Holcombe, *The Economic Foundations of Government* (New York: New York University Press, 1994).

[23] See John Rawls, *A Theory of Justice* (Cambridge, Mass.: Belknap, 1971); Robert Nozick, *Anarchy, State, and Utopia* (New York: Basic Books, 1974); and James M. Buchanan, *The Limits of Liberty: Between Anarchy and Leviathan* (Chicago: University of

Chicago Press, 1975) for examples. Scott Gordon, "The New Contractarians," *Journal of Political Economy* 84, no. 3 (June 1976): 573–90, has referred to these three individuals as the new contractarians.

[24] See Leland B. Yeager, "Rights, Contract, and Utility in Policy Espousal," *Cato Journal* 5, no. 1 (Summer 1985): 259–94.

[25] The government will be better off the less force it has to use, so it has an incentive to entice people to cooperate. This issue is discussed below.

[26] Buchanan, *The Limits of Liberty*.

[27] Rawls, *A Theory of Justice*. Here he argues that institutions should be agreed upon from behind a "veil of ignorance." from behind the veil, nobody would know what their identity would be after the veil is lifted. Thus, from behind the veil, everybody would have an equal probability of being any member of society after social institutions were designed. If one did not know whether they would be in the strong or weak group, it is unlikely that they would agree to give more to those who happened to be in the strong group after the veil was lifted.

[28] Leaders of democratic governments also must find some comfort in the thoughts that if they are unseated, they can return to the private economy with enhanced profit opportunities, as opposed to living in exile, or worse. For a discussion of the merits of democratic government in this context, see Dan Usher, *The Welfare Economics of Markets, Voting, and Predation* (Ann Arbor: University of Michigan Press, 1992).

[29] Holcombe, *The Economic Foundations of Government*.

[30] In addition to helping Mr. Nelson pay the taxes the IRS claimed he owed, the concerts Mr. Nelson played also served to demonstrate in a very visible way that the IRS is serious about enforcing its claims.

[31] For a discussion of the symbolic uses of politics and the way that politics conveys the perception of legitimacy on government actions, see Murray Edelman, *The Symbolic Uses of Politics* (Urbana: University of Illinois Press, 1964). See also Douglass C. North, *Structure and Change in Economic History* (New York: W. W. Norton, 1991); and idem, "Ideology and Political/Economic Institutions," *Cato Journal* 8 (Spring/Summer 1988): 15–28.

[32] Governments need not be democratic in order to create the impression of legitimacy. If citizens believe that their rulers are appointed by the gods, or are themselves gods, such as the Pharaohs in ancient Egypt, or if citizens believe that hereditary

monarchy is a legitimate way of determining political leadership, then the actions of leaders can carry with them the perception of legitimacy.

[33] Steven Kelman, "'Public Choice' and Public Spirit," *Public Interest* 87 (Spring 1987): 80–94.

[34] Private schools do receive some state benefits. Scholarships, research grants, and so forth are obvious examples. They also may take advantage of non-profit status to avoid taxation. Increased subsidization of private schools might indicate a more democratic society in which interest groups wanting to have private education are able to weigh in with their political demands. A contrary viewpoint is that state subsidies go hand-in-hand with state control, and that the government would benefit from a takeover of private schools, facilitated by subsidization.

[35] Despite working at a private institution, Samuelson, as the foremost promoter of the theory of public goods, has had great faith over the years in the government's ability to allocate resources efficiently. In the 1973 edition of his popular introductory textbook *Economics* (9th ed. published by McGraw-Hill), published in the year of Ludwig von Mises's death, Samuelson forecast that despite the fact that the Soviet Union had a *per capita* income about half that of the United States, the Soviet Union was growing faster and could catch up with the U.S. as soon as 1990, and almost surely by 2010 (p. 883). His promotion of government production of public goods on efficiency grounds fits well with his more general ideas on the efficiency of government production.

[36] Ludwig von Mises provides a good example of this. Because he steadfastly held to his idea that socialism is not a viable economic system, his work was not taken seriously by the majority of his profession until socialism collapsed, 20 years after his death.

Knowledge, Judgment, and the Use of Property

Jörg Guido Hülsmann

Two Interpretations of the Causes of the Socialist Disaster

In recent years, the socialist calculation debate of the 1920s and 1930s has attracted anew the interest of thinkers in the Austrian tradition. With the breakdown of the Soviet empire Ludwig von Mises's claim that socialism as an economic system is impossible has received a somewhat late empirical confirmation. However, modern Austrian economists are far from sharing a common interpretation of the issue.

Some of them think that the impossibility of socialism stems from its inability to communicate dispersed knowledge.[1] In their eyes, information about the particular circumstances of time and place can never be centralized. It necessarily exists in dispersed form and yet it can be communicated by the market prices of capitalist societies. Only capitalism is thus capable of solving the knowledge problem.

Other authors consider the knowledge-problem to be secondary.[2] They hold that the absence or presence of private property is the salient point. In socialism there can be no calculation because the latter presupposes market prices. Market prices, however, presuppose exchange and, thus, private property.

This division of opinions goes back to Mises and Hayek. Mises considered the emphasis on the knowledge problem to be insufficient because it merely suggested a *practical difficulty* for the implementation of a socialist regime. What he had in mind was that socialism was, for purely logical reasons, *impossible*.[3] Hayek, on the other hand, focused entirely on the problem of dispersed knowledge.[4] He not only developed this point in the context of the socialist calculation debate but it is the foundation of all of his later social philosophy.

Importance of the Dispute

We are not merely discussing the reasons for the failure of socialism, because the dispute concerns both the understanding of what economics is all about and the practical conclusions that can be inferred from our science. The whole issue is of fundamental importance.

According to Mises, economics is a science that consists of *a priori* propositions about reality. In his eyes these propositions are implied in the conditions of action and are arrived at by an exercise of logic. Whatever is the product of sound discursive reasoning, so the argument goes, must be valid for reality.

This is precisely the point that Hayek wants to oppose. To his understanding, economic theorems are in some way detached from reality. They are mere tautologies. Additional statements about the acquisition of knowledge are necessary to make them relevant for the understanding of our world. Thus, consider the programmatical declaration that he gave in his article on "Economics and Knowledge":

> my main contention will be that the tautologies, of which formal equilibrium analysis in economics essentially consists, can be turned into propositions which tell us anything about causation in the real world only in so far as we are able to fill those formal propositions with definite statements about how knowledge is acquired and communicated. In short, I shall contend that the empirical element in economic theory—the only part which is concerned not merely with implications but with causes and effects and which leads therefore to conclusions which, at any rate in principle, are capable of verification—consists of propositions about the acquisition of knowledge.[5]

Formal equilibrium analysis in the sense Hayek uses refers to the mathematical approach. However, it is at least doubtful whether one really has to condemn equilibrium analysis altogether in order to refute socialism. This is an issue beyond our present scope. Rather the focus is on a critique of the Hayekian emphasis on knowledge problems and on a reconstruction of the fashionable expressions of market process and knowledge in terms of property and calculation. The Hayekian approach has been elaborated with delicacy by Israel M. Kirzner. Therefore, the present critique will refer mainly to his works.[6] The whole knowledge paradigm is a blind alley

and its infallibility leads to nihilism of the Shacklean-Lachmannian brand.

The Case Against the Knowledge Paradigm in Economics

Do Prices Communicate Knowledge or Coordinate Actions?

The first thing we have to ask is whether prices do have a communicative function at all. According to Kirzner, there are two quite different communicative functions of prices. He distinguishes between the communicative functions of equilibrium and disequilibrium prices, and places particular emphasis on the latter:

> It is one thing to recognize the role of equilibrium prices as economic signals which permit instantaneous coordination of decentralized decisions, based on dispersed bodies of knowledge. It is quite another thing to recognize the role of *dis*equilibrium prices in stimulating entrepreneurial discoveries concerning the availability of dispersed information (whose existence had hitherto escaped relevant attention).[7]

Let us consider these functions in turn. This first thesis refers to equilibrium prices. It is, indeed, composed of three distinct sub-theses.

First off, prices are claimed to contain economic information in a condensed form.[8] This is undoubtedly true if one intends to say that prices give information about exchange ratios of the past. Yet, we have to remark that past prices are the outcome of past conditions. Action, however, is never confronted with past but with future conditions, namely, with all conditions prevailing during its course. Moreover, and this is the crucial point, we should not overlook that prices are always the *outcome* of an action. Therefore, all information that this action was based upon had to be acquired beforehand. The price itself could not have communicated the knowledge that brought it about. Only in a metaphorical sense could one say that prices reflect or contain information on present conditions. For acting man these conditions of the immediate past are already bygones.

The second sub-thesis says that equilibrium prices permit the

communication of dispersed bodies of knowledge.[9] These particular circumstances of time and place are never known by anyone in their totality. Yet, through the exchange ratios of the market, they are transmitted in abridged form to all market participants. According to these advocates, socialism suffers because it has no equivalent mechanism. The socialist planning board cannot determine the values of the factors of production because these values are determined by facts of supply and demand that are too widely dispersed.[10]

Let us observe that the positive part of this reasoning contains no argument at all. It is asserted that prices communicate abridged relevant information. This, however, is only a metaphorical expression. Each exchange ratio is determined by particular circumstances of time and place. Yet, it is not important *that* this be so but rather—if at all—*how precisely* this determination operates. As long as there exists no theory about the exact determination of our choices, we can infer nothing from the fact that everything must be determined. It is also mere assertion that no mechanism other than prices could communicate those dispersed facts with the same speed.[11] However, if we assume, for the sake of the argument, that this was the case, then the market economy would stumble from one crisis into another. The quickest information for the capitalist-entrepreneurs is in the observation of market prices. Only then would they begin to act. In other words, if information really were so important, there would be no use for anticipating the future, yet it is precisely the latter that permits the market to operate smoothly.

Finally, the advocates of the importance of knowledge problems argue that exchange ratios permit the coordination of decentralized decisions. It is difficult to see how coordination as such could ever be a problem that socialism is incapable of solving. Indeed, in a larger sense all actions are somehow coordinated. Our actions are no less coordinated with the actions of milkmen and movie tycoons than with those of robbers, rapists, and murderers. It is not the problem of murder that the Hayekian knowledge theorists have in mind when they speak of coordination, so an additional criterion is required to distinguish “good” from “bad” coordination. This criterion—and not coordination—would then be the cornerstone of economic analysis.[12]

Thus, one is led to wonder whether the word “coordination” is but an unfortunate expression that obscures some valuable

insights. We should therefore take a closer look at the illustrations given in support of the knowledge-problem approach. Probably most famous is the tin example that Hayek uses to illustrate the claim that "prices can act to coordinate the separate actions of different people in the same way as subjective values help the individual to coordinate the parts of his plan." Hayek suggests that we:

> Assume that somewhere in the world a new opportunity for the use of some raw material, say, tin, has arisen, or that one of the sources of supply of tin has been eliminated. It does not matter for our purpose—and it is significant that it does not matter—which of these two causes had made tin more scarce. All that the users of tin need to know is that some of the tin they used to consume is now more profitably employed elsewhere and that, in consequence, they must economize tin. There is no need for the great majority of them even to know where the most urgent need has arisen, or in favor of what other needs they ought to husband the supply. If only some of them know directly of the new demand, and switch resources over to it, and if the people who are aware of the new gap thus created in turn fill it from still other sources, the effect will rapidly spread throughout the whole economic system and influence not only all the uses of tin but also those of its substitutes and the substitutes of these substitutes, the supply of all things made of tin, and their substitutes, and so on; . . . The whole acts as one market, not because any of its members survey the whole field, but because their limited individual fields of vision sufficiently overlap so that through many intermediaries the relevant information is communicated to all.[13]

There can be no doubt that the effect of the increased scarcity of tin will rapidly spread throughout the whole economic system and influence not only all the uses of tin but also those of its substitutes, etc. This process is, however, not best characterized by a coordinative function of prices.

The fundamental fact of scarcity implies that not every demand for tin can be satisfied. Some people have tin whereas others do not. An increased scarcity of tin implies that some

market participants who otherwise could have benefited from tin are now of necessity prevented from using it. If a quantity of tin is sold, then the seller cannot sell it again, *regardless of the exchange rate*. There is simply no more of this tin left. Whether the seller takes notice of this or not is immaterial. He cannot sell what is no longer in his possession. Moreover, tin does not become scarcer and *then* this fact can come to be known to someone and lead to adaptations. Rather it is the other way around. The very fact that demand increases means that someone *already knows* of a more value-productive employment of tin.

It is not prices that coordinate the actions of sellers and buyers of tin; prices are the outcome of (coordinated) action, not its coordinators. It is property, rather than knowledge, that coordinates the separate actions of different people. The terms coordination and communication rather obfuscate than adequately express this fact. This is another example of the dangers linked to the use of metaphors in scientific discourse.

The Attraction Theory of Equilibration

Now, let us return to the second of Kirzner's theses. How far is it justified to speak of a communicative function of disequilibrium prices? Previously, we have seen that Kirzner believes them to stimulate entrepreneurial discoveries concerning the availability of dispersed information. The important word in this expression is "stimulate." Does Kirzner intend to say that prices or price spreads are the *causes* of actions? Indeed, this seems to be the position that he advocates. He says: "opportunities for profit can attract and inspire market actions which turn out to reduce market ignorance and misallocation."[14]

It is important to realize that this conception does not coincide with entrepreneurial alertness in the definition used by Kirzner. Entrepreneurial alertness is to be "understood as the capacity independently to size up a situation and more correctly reach an imagined picture of the relevant (as yet indeterminate) future. All of us share in this ability to some extent . . . But some have higher degrees of this ability."[15]

Indeed, who would venture to deny that each of us, at least to some extent, manages to size up a situation and correctly reach an imagined picture of the relevant future?[16] However, Kirzner's conception of the communicative function of disequilibrium prices relies on something entirely different from alertness in the above sense. He claims that

> it is the *prospective gain offered by [future] realities* which "switches on" entrepreneurial alertness.[17] We know very little about the precise way in which pure profit opportunities attract entrepreneurial attention. But there can be little doubt about the powerful magnetism which such opportunities exert.[18]

Kirzner has invited us, without supporting argumentation, to share his belief in what could be labelled an attraction or revelation theory. For if action is conscious behavior, what does it mean that price spreads *cause* action? There must be a sort of mechanism that brings price spreads to the attention of some entrepreneurs. Price spreads must then be conceived of as somehow jumping into an entrepreneur's consciousness without requiring any prior action on his part. In general terms, Kirzner's conception implies that we (or some of us) do have information about an object because the object itself puts it somehow in our consciousness. We are passive and the object is active.

Of course, this is not true. The objects in our environment are as they are—whether we know something about them or not. However, without conscious action on our part we will never know anything about them. Or could you even describe the color of the seat you sit upon right now without consciously looking at it once again? Could you even say precisely how many steps one has to climb to get to your hotel room without counting them? There is an infinite number of questions of this kind, and each time the answer is no. It is not the objects that attract our action. We have to act to make them enter into our consciousness.

To be sure, an object must be there to be perceived. Its existence is a necessary condition for its being perceived. Yet a perception is always an action, that is, the manifestation of a choice; and choice is in no known way determined by any object. Thus, without consciously taking notice of the prices that are formed on the market we cannot possibly know about them. As a consequence, we cannot be attracted by prices and price spreads, either.

Price differences in the same market are no exception. Even if there are different prices at the same time and in the same geographical area, entrepreneurs have to consciously look for them. They have to *act* in order to know where to buy and where to sell.

At each moment there is probably an infinite number of

undiscovered price spreads. We would all be much better off if Kirzner was right and these price spreads were revealed to some of our fellows. They could stay at home, sit in their armchairs and reap some pretty profits. Unfortunately, this is not how things happen in our world. It is therefore impossible to conclude with Kirzner that "*this very spread* between high and low prices *suggests* to some alert entrepreneurs that arbitrage profits may be won."[19]

Kirzner does not claim that *every* alert entrepreneur will be attracted by profit opportunities. However, this is no solution to the difficulty that his attraction theory faces. In a sense it rather creates additional difficulties. For one still has to explain *how* an object, by its sole existence, can enter our consciousness. Yet, now, one also has to explain *why* some persons are more susceptible to price spreads than other persons.

However, even if one ignored these objections and even if one assumed, for the sake of argument, that alert entrepreneurs could somehow know the marginal value product of factors of production, the attraction theory would still be contradictory. For either a factor of production has already been sold on the market or not. If it has been sold at a price below its discounted marginal value product then there is a profit opportunity. Yet, in this case, it would be too late for an alert entrepreneur to intervene, for the very reason that it already has been bought by a competitor. If, by contrast, that factor has not yet been sold to anybody then there is no price spread. As a consequence, no alert entrepreneur *can* be attracted to purchase this factor. Thus, the attraction theory is invalid even on its own assumptions.

Kirzner would probably deny that his theory leads him close to the grounds of a somewhat crude materialism. He sometimes emphasizes that one "can never say that alertness rendered its possessor sure that he would successfully discover that which he later discovers."[20] However, one should not overlook that his attraction theory is of crucial importance to what he considers to be the central theorem of economics, namely, the theorem that "demonstrates the equilibrative and coordinative tendencies in the market process."[21] This theorem, as Kirzner understands it, rests on the notion of a systematic learning process that is generated throughout subsequent time periods.[22] Now such a theorem must of necessity show that discoveries (that is, pertinent judgments) are in some way determined by the objective conditions of action. If discoveries were determined by choice alone, such a demonstration would be impossible, as

choice implies that one can err. Hence, Kirzner's central theorem requires that discoveries be explained by factors other than choice. This is precisely what Kirzner attempts to do with his attraction theory. Indeed, it would be insufficient for his purpose to merely stress the "motivation to see relevant facts as they are."[23] For such a motivation alone would, of course, not assure any success. It is not sufficient to claim that entrepreneurs are alert if one wants to prove the existence of a Kirznerian equilibrating process. One has to show that they succeed and why. Above we have seen that Kirzner can hardly be said to have solved this problem. The reason is, of course, that one cannot think of action apart from choice. Yet, does this mean that it is vain to look for any tendency of the market toward equilibrium? Be that as it may, even if the analysis of equilibrium or equilibration were defective it could hardly be helpful to supplement it or to replace it with another fallacious theory.

The Consequence: Empiricism

By the way, Kirzner seems not to be very convinced of his proof of equilibration, either. Above we have noted that at the bottom of Kirzner's attraction theory there is nothing but his *belief* in it. This is no exaggeration. Indeed, Kirzner is very conscious that this is the basis of his theory. Consider the following statements:

> It can be shown that our confidence in the market's ability to learn and to harness the continuous flow of market information to generate the market process depends crucially on our belief in the benign presence of the entrepreneurial element.[24]
>
> An assertion that the attempted execution of a set of incompatible plans will set in motion a systematic series of plan changes tending toward equilibrium cannot be made on purely logical grounds. Such an assertion must depend on a postulated propensity on the part of market participants to learn the correct lessons from their experience.[25]

This reliance on mere assertion and on an appeal to share in his belief indicates that Kirzner has abandoned the idea of praxeology, that is, of a logic of the social phenomena. Indeed, his empiricism has constantly grown over the years.[26] In his

last book he explicitly says:

> economic science has always proceeded from the important empirical circumstance of economic order. . . . The market obviously works. That the market works is perhaps the most significant lesson of modern history.[27]
>
> It is the central tenet of market process theory, under the present variant of it, that despite the complexities thus introduced by continually changing UV's [underlying variables], the essential character of the market process, as a matter of historical experience, does remain largely intact.[28]

This is not the way Mises conceived of the market or of the relationship between the historical and the theoretical branches of the social sciences. It is an open question whether market-process analysis of the Kirznerian variant is not essentially a kind of historical investigation. However, we cannot address this topic at this place as our purpose is more limited.

Robbinsian Economizing and Kirznerian Entrepreneurship

From what has been said so far it follows that Kirzner's whole characterization of entrepreneurial activity as a resourceless discovery[29] is unfounded. For if action implies that scarce means are employed in the pursuit of ends, and if one has to act in order to perceive anything whatever, then there can be no such thing as a discovery—or better: a judgment—without the disposition of one's brains and sensory apparatus. There can be virtually no activity at all without at least *some* property.[30] As a consequence, it would be equally impossible to realize any judgment on the market without becoming a capitalist. Likewise it is inconceivable to be simply a capitalist lending funds to an alert idea man. For doing this, one would at least have to make the discovery that this credit is at the moment the best way to use one's property.[31]

We have seen that the root of Kirzner's errors concerning entrepreneurial discoveries lies in his attempt to determine choice—if only implicitly. Choice is the universal problem with which acting man is confronted. At each moment he has to choose the supposedly most important action that can be

executed. This kind of judgment is the cornerstone of economic science. It is well known that Kirzner tends to qualify this. All of his work—virtually all of his articles—starts from a critique of what he calls the "Robbinsian economizer."[32]

Kirzner claims that the problems of real life are disfigured if one considers the economic data to be given to the market participants. In Kirzner's eyes, if a datum is given this means that it is *known* to some or all market participants.[33] As a consequence, he emphasizes that the market participants have to discover the data. If the latter are only incompletely perceived, there can be something like "sheer ignorance" of the present data. It is through the market process that the data become known as they are discovered. Kirzner further argues that what counts is not equilibrium and perfect knowledge but equilibration and discovery. Let us not waste our time, so the argument goes, with the never-never land of the evenly-rotating economy and perfect knowledge. Let us rather focus on our way to acquire knowledge and thus approach equilibrium in a process of equilibration.

One cannot deny that not all data are given to us in the sense that we know them. However, it is a different question whether this was claimed in Lionel Robbins's *The Nature and Significance of Economic Science*. And it is also a different question whether, if Robbins did do so, the Kirznerian entrepreneur would be a viable alternative.

An impartial reader of Robbins's above-mentioned book cannot help but wonder what Kirzner's critique is based upon. Kirzner rarely gives quotations to support this argument, and it is only in his work *The Economic Point of View* that he quotes at length from Robbins.[34] Yet even in these quotations nothing can be found which could possibly support his claim against Robbins. To avoid any misunderstandings: I do not intend to say that nothing can be found in these quotes that would not be worthwhile criticizing. However, it is obvious that Robbins does not consider the ends of action to be *known*. Rather, he explicitly states that, for economic theorems to be valid, the concrete means-ends frameworks are irrelevant.[35]

Perhaps Kirzner's purpose is not to criticize Robbins but some contemporary microeconomic textbooks featuring a caricature of acting man. Thus, he points out "that the purely allocative decision never does occur, and that in fact it is sheer illusion to imagine that economic science can ever provide the kind of precision suggested in microeconomic textbooks."[36]

However, in this case it would be inadequate to charge Robbins with the fallacies of some writers who are (or can be considered to be) inspired by his work. And still the question remains, then, whether the emphasis on discovery and knowledge represents any conceivable advance over the emphasis on choice.

Of course, we do not know everything in our environment in the sense that we have already experienced it. But this is completely irrelevant for the problem of choice. For to choose correctly does not mean that one has experienced all relevant data, but that one acts according to a correct *judgment* upon these data.[37] That data are given does not mean that they are known. It means rather, that our action is confronted with them, be they means or obstacles. Yet they *are* means and obstacles independently of the question whether we know them or not. It is also irrelevant whether a datum does already exist at the moment of our decision. If it comes into existence only in the future it is no less a datum than any other. For our action, it is then given in the same sense as the presently-existing data are given, too. Entrepreneurial appraisements of the factors of production do not presuppose information about the future. They are judgments based on estimates, that is, judgments about the future.[38]

Does all this mean that knowledge has no bearing on action whatever? Indeed, one cannot avoid this conclusion by saying that most of our past knowledge can successfully be applied in the future. For the very question is *why* this is so. The validity of empirical knowledge has been established by experience, and all our experiences are determined by the totality of their conditions. Yet, the conditions of action are not immutable. Rather, they change from day to day. Here lies the problem of the application of past knowledge. We have to *judge* whether the same conditions will prevail in the future as well. To this task all our empirical knowledge is of no help.

Therefore, there can be no such thing as a "generation of knowledge" through disequilibrium prices. The latter do not "reveal, to alert market participants, how altered decisions on their part . . . may be wiser for the future."[39] No past experience tells us what we should expect for the future to come. Neither can it tell us which actions we should choose.

Each action presupposes an ingredient that is entirely distinct from knowledge and information, namely, a judgment upon the conditions prevailing in the future. Why, then, do we need the Kirznerian entrepreneur at all?[40] Even Kirzner

himself sometimes describes the Robbinsian economizers as "decision makers [that] are passive price-takers, simply optimizing against the background of *assumed* data."[41] Thus Robbinsian economizers do not behave as mechanically as Kirzner would have us believe them to be. At least they anticipate the future. They thus cannot be simple price-takers. Kirzner would surely retort that nothing in their behavior assures equilibration. However, as we have seen, nothing in his concept of an entrepreneur can assure this, either. Kirzner's argument, therefore, boils down to saying that "some assumptions about the future prove to be profitable whereas others do not; *therefore* the former are 'entrepreneurial discoveries' whereas the latter are the 'data' assumed by Robbinsian economizers." True enough, but this kind of wisdom would not require an economist.

Searching for Knowledge of the Future: the Road to Shackleanism

Kirzner's emphasis on discovery and equilibration is not necessary to give meaning to any sound economic doctrine. As we have already noted, in its attraction-theory version it merely leads to additional problems. Now we have to focus on another area of difficulty that inevitably follows from considering knowledge problems as the cornerstone of economics. For the talk of knowledge and sheer ignorance leads ultimately to what is erroneously called extreme or radical subjectivism (erroneously, because it is rather a spurious subjectivism). If knowledge can only be acquired after perception, then economics (and all other social sciences, too) can only be an empirical, *ex post* science of human action. Now, strictly speaking, *all* knowledge that we ever acquire is acquired *ex post*, i.e., after a perception.[42] We always have to advance additional reasons to argue for the more or less universal validity of a perception. Yet, the spurious subjectivists just claim (correctly) that there can be no present experience of future events. From this they infer that there can be no scientific statements about the future, either. For them, the future is kaleidoscopic, veiled and, in principle, unknowable.

Emphasis on discovery and equilibration cannot avoid these conclusions at all. It is vain to think that there is a kind of knowledge-producing mechanism called equilibration. Despite all claims to the contrary, this kind of a mechanism is the very core of Kirzner's comprehension of the market. One may discuss the

question whether it is really a mechanism that is at stake. But it is hardly possible of denying that Kirzner's theory of equilibration aims at and relies upon statements about the systematic nature of entrepreneurial discoveries. Call this systematic nature of discoveries a mechanism or call it something else—the crucial point is that there must be a constancy that links perceptible events and their perception, that is, their discoveries. Otherwise, one could not speak of a theory at all, for a theory always aims at the establishment of general rules. There cannot be such a rule without constancy.

Of course, neither Kirzner nor anybody else has succeeded in elaborating such a theory. However, we have to address the question of whether it is at least conceivable that such a theory can be constructed. For in this case, Kirzner's attempts could be considered to be a quite normal failure but not without some merit. Unfortunately this is not the case. The notion of a constant relationship between perceptible objects and their perception, which must be rejected. It is not a viable approach to economics at all. We know nothing about the precise reasons for perceptions.

This criticism has already been noted above. The only way to counter it is to claim that, in the course of time, acting man discovers more and more of the environment of his actions. Once we have discovered an object, we learn each day to deal a little bit better with it. As time goes by, we can better discern what kind of perceptions it does permit under what circumstances.

Even if this is true, let us note three points. First of all, it does not concern the lack of a viable perception theory. The proposition that, once we know something, we know it for all time does not answer the question of how we came to know it. Furthermore, this proposition ignores the fact that the conditions of action do not cease to change. Therefore, the knowledge that we acquired through an *ex post* evaluation of the past cannot simply be applied again in the future.[43] Yet most importantly, it merely refers to objects different from human action. But what about action itself? What about choice and perception? Can choice and its offspring, prices and price spreads, be studied with the same results as the dead matter around us? The answer to this question is no. Not only is it impossible to deduce choice from any other conditions of action, there also *can* be no theory featuring the causes of choice. Such a theory would have to assume that there was something like constancy in the thought of acting man. In other words, such a theory would have to

presuppose that man cannot learn; this, however, is self-defeating.[44]

To be sure, no entrepreneur can base his judgments on the sole analysis of conditions of action other than choice. He has to analyze choice as well. Yet, this he must do in the way of thymological understanding.[45] Thus, he can never arrive at any general conclusions. There is no possibility to say in a general manner under which conditions our discovered knowledge about price spreads will be valid.

The emphasis on knowledge and discovery cannot avoid the pitfalls of spurious subjectivism. However, the latter doctrine is definitely not the position Kirzner advocates. In *The Meaning of Market Process*, he emphatically refutes the case of spurious subjectivism. He tries to defend what Roger Garrison calls the Austrian middle ground.[46] However, on the basis of his own account of economic doctrine, this would be an impossible undertaking. If equilibrium analysis presupposes that all data are *known* to each market participant, one cannot counter the arguments of the spurious subjectivists. Yet, in his refutation of the latter, Kirzner does not try to show that they have given a wrong account of the allegedly-important problems of knowledge and sheer ignorance. Rather, he makes an excellent case for common sense, and this case he states without recourse to knowledge and ignorance, but with emphasis on action and choice. He says:

> The usual, layman's, perception of human decisions is that some of them are taken wisely, judiciously, successfully. These are the decisions which, in retrospect, one recognizes as having been crucial to the achievement of some desirable outcome. Other decisions, the usual perception has it, turn out to have been unsuccessful; in retrospect, at least, they are seen to have been mistakes. . . . Here we have the nub of our apparent disagreement with the radical subjectivists: is it or is it not meaningful to describe a decision as having been appropriate, in the light of subsequent events, or as having been inappropriate?[47]

What are these statements other than an implicit acknowledgement of the irrelevance of knowledge problems? In any case, they do not mark a new turn in Kirzner's thought on these problems. In a revealing passage from his *Competition and*

Entrepreneurship, he made the following remarks:

> My discussion of entrepreneurial alertness has deliberately avoided its speculative character. I have of course recognized that in a world of uncertainty every entrepreneurial decision, no matter how much alertness it reflects, must to some extent constitute a gamble. But it has been my purpose to point out that the entrepreneur's decision—despite its unavoidably speculative character—represents his judgment that an opportunity for profit *does* exist. All human action is speculative; my emphasis on the element of alertness in action has been intended to point out that, far from being numbed by the inescapable uncertainty of our world, men act *upon their judgments* of what opportunities have been left unexploited by others.[48]

This is the *common* ground of sound economics. However, with regard to Kirzner's theory of discovery and equilibration we are unconvinced. As will be seen in the next section, Kirzner's contributions are defective where one would least suspect them to be so, namely, in their account of the market process as it was conceived by Böhm-Bawerk and Mises.

The Case for Property and Calculation

Does Market Process Analysis Rely on Knowledge Problems?

In this section it will be argued that the problems of action that underlie the fashionable expressions of market process and knowledge can be entirely analyzed in terms of property and choice. Let us first take a look at the way in which prices for capital goods are formed on the market. This process has found its first statement in Böhm-Bawerk's *Positive Theory of Capital*[49]; Mises called it the market process.[50] The advocates of the alleged importance of knowledge problems claim that the market process is beneficial because it is a device to *diffuse and communicate* knowledge. However, this is not what a sober analysis reveals.

There are two steps that have to be distinguished in the market process, namely, the formation of prices for consumer

goods and the formation of prices for capital goods. The former depends entirely on the individual values of the consumers. The more they appreciate a product the more they will be ready to give in exchange for it. This has direct repercussions on the market for capital goods. The higher the proceeds of a product the more can be successfully given in exchange for its factors of production. Now, what is implied in the fact that each capital good will be exchanged against the highest price its owner can obtain? It means that only the supposedly most-value-productive enterprises can be realized. All other entrepreneurs simply cannot bring the needed capital goods into their possession. They cannot pay prices as high as their competitors.

What role does the knowledge of the market participants play in this analysis? In particular, is any communication or diffusion of knowledge necessary in order to bring the above result? The answer to the latter question clearly is in the negative. The competing entrepreneurs may know nothing at all about other possibilities to employ the factor of production they all want to buy. However, this does not alter in the least the conclusion that, as a consequence of the formation of market prices, only the supposedly most-value-productive enterprises are realized. Out of the available alternatives known to each partner in exchange, none is, at this moment, more beneficial than the exchange itself. This conclusion is a necessary implication of any exchange. Thus, even if every single market participant just knows how to realize his own project and rests ignorant about all other opportunities, the market process still leads to beneficial results.[51]

The distinguishing feature of the market process does not lay in the communication of knowledge. The formation of prices rather implies a *comparison* of projects in value terms. This comparison has nothing in common with a dissemination of knowledge. It is through action that the competing projects are compared. *Because* an entrepreneur pays higher prices for the factors of production, his project must realize higher (discounted) proceeds.

The market process is thus inextricably linked to choice and action. Knowledge and communication, on the other hand, are secondary.[52] This is the core of the analytical problems of Kirzner and his followers. To be sure, from each of Kirzner's articles we learn about another facet of market process. However, what we learn about is a Kirznerian market process the central idea of which is some mystical revelation through prices.

This revelation theory has nothing in common with Misesian market-process analysis. It is, therefore, nothing short of ironic when Kirzner regrets "a certain tendency, present in a number of recent expositions of Mises's work, to de-emphasize (or flatly to deny) the centrality of the idea of the market as a process in the Misesian system."[53] Indeed, nobody has probably done more harm to this idea than Kirzner himself.

It is one thing to note Kirzner's noble modesty in emphasizing that his own work is but an elaboration of Mises's writings. It is another question whether this "elaboration" does not, as a matter of fact, amount to negation of the theory. Kirzner claims that, in regard to market process analysis, there is no difference between Mises and Hayek whatever.[54] Nothing could be more contrary to truth, though. What Hayek and Kirzner have in mind is a learning process. Ultimately, this is a process leading to perfect knowledge, that is, to equilibrium. In other terms, Kirzner as well as Hayek try to explain *why and how* we learn about the truth and thus about true prices. They believe that such an explanation can be provided because this "process by which facts are hammered into human consciousness is not wholly ungoverned by the logic of human action; it fits naturally in the tendency for alert acting human beings to notice what is likely to be of service to them."[55] Kirzner's solution to this problem is that the necessary information is revealed through "wrong" actual prices. Mises, however, was not concerned about this problem at all. To Mises, the analysis of the market process was meant to uncover the implications of human action for the formation of prices on the market:

> In supplying the market with those consumers' goods in the sale of which the highest profits can be earned, they create a tendency toward a fall in their prices. In restricting the output of those consumers' goods the production of which does not offer chances for reaping profit, they bring about a tendency toward a rise in their prices. All these transformations go on ceaselessly and could stop only if the unrealizable conditions of the evenly rotating economy and of static equilibrium were to be attained.[56]

Mises makes no attempt to solve the problem that Hayek and Kirzner are eager to solve, namely, why equilibrium is likely to come about. Rather he does not bother about this question at

all. In Mises's eyes equilibrium is a necessary tool of *analysis*. Yet the validity of economic theorems does not depend at all on the question why and how equilibrium should ever be realized. It is precisely this point that is denied both explicitly (Hayek[57]) or implicitly (Kirzner) by all would-be market process theorists. Despite all their disdain for mathematical equilibrium theorists they are arguing on the very same grounds. They endlessly repeat the term "market process." Yet, they strongly believe that the reality of equilibrium has to be proven and explained.

All this is of no relevance for Mises's market process analysis. From the Misesian perspective there may be equilibrium and disequilibrium prices. One might even follow Kirzner and say that the market process consists in the continual "correction" of disequilibrium prices that occurs in the course of entrepreneurial competition.[58] Yet, it is important to see clearly what that means. The correction is in fact an implication of any successful action on the market. The point is that prices are always formed according to the best knowledge available to property owners. Hence, the sole fact that I sell my tomatoes to A and not to B implies that, *ex ante* at least, this use of my property, and thus the price being established on the market, is better than any other possible use of it (and thus any other price) that could have been realized otherwise. This holds true for disequilibrium and for equilibrium prices. There are no separate explanations for them. All prices are market prices, and as such they have to be explained.

It can hardly be emphasized enough that these different views of the market process have momentous implications. The most important one concerns the very dynamics of market process analysis. The word process means that this kind of analysis is supposed to explain the succession of events in time. This in turn presupposes that one is able to establish a causal link between the events that follow one another. Kirzner's basic error consists in his attempts to link discoveries (or true judgments) to former events. As no such links can, without inner contradiction, be claimed to be necessary, that is, generally and apodictically valid, Kirzner makes assertions of alleged empirical evidence to make his case at all. Thus, the theorems that he is able to derive must inevitably be empirical. It is for these reasons that Kirzner now considers economics to be based on empirical postulates or empirical facts. On the other hand, the Misesian view on the dynamics of the market process starts from the recognition of the universal fact of scarcity. This alone suffices to arrive at *a priori*

theorems about the succession of real events in time. Some examples are: if I consume more now I shall of necessity be unable to consume as much in the future as I would if I saved more; or: if I overestimate the quantity of means at my disposal I shall nevertheless be led to discover my error sooner or later in the future.

Hence, there doubtlessly is no approach to market-process analysis that is commonly shared by Böhm-Bawerk and Mises on the one hand and by Hayek and Kirzner on the other hand. Most importantly, however, only Mises's analysis is a viable option to build upon. It does not contain the fallacies of the Hayek—Kirzner approach that have been identified above.

Property and Knowledge

Above we have argued that the advocates of the pre-eminence of knowledge problems in economics cannot adequately deal with the fact that there can be no present experience of future events. However, there is still a more fundamental condition of action. This is the fact that knowledge as such is never scarce. Knowledge problems thus do have a place in economics only insofar as knowledge has to be selected for application. Yet the selection of knowledge depends entirely on the property of the acting person.

At each moment we dispose of a myriad of information, and we often know of many ways to achieve any given end. For example, if my apartment is cold, I could keep my body warm through gymnastics or additional sweaters. I could also burn parts of my furniture or simply turn on the heating and pay higher bills. I could also sit down in my armchair and invent a new technology permitting one to heat my apartment at half of the present cost.

To be sure, the latter alternative is the most elegant one. In any case, as conditions do not cease to change, we constantly have to acquire new knowledge if only to conserve our present standard of living. However, economic science does not have to deal with the factors conditioning the acquisition of knowledge. We may also leave the question open whether economics *can* deal with them. This is of no importance for the issue at hand. For the moment we are entirely unconcerned with the creation of knowledge, that is, of judgments that prove to be successful in action. We do not bother about the way we reduce our sheer ignorance. Rather we have to consider the principles that govern

the selection of the judgments that we actually apply in our actions.

Consider the problem of lighting your cigarette. Do you use a flamethrower, matches, heat your coke-oven until it is red-hot, or wait until the next lightning-flash strikes a piece of wood? Any solution could be most appropriate under certain conditions. Or, consider the myriad of technically-possible ways to get from Harlem to downtown Manhattan. You can take the subway, the express subway, a taxi, your car, rent a bus, rent a helicopter, buy an F-16 and two personal airports, etc. Of course, one would say that the latter alternative is absurd under *normal* conditions. It is always the conditions of action that we deem reasonable or absurd, not the action as such.

The quantities of means we can dispose of—our property—are always limited. Thus, choice implies that some of our ends must remain unfulfilled. We steadily run the danger of pursuing ends that are less important than the ends that could have been pursued. We have to choose the supposedly most important action, though what we choose is how we use our property. Action means to employ our property in the pursuit of what appears to be the most important ends.

In choosing the most important action we implicitly select some parts of our technological knowledge for application. In other terms, our choices imply a judgment upon the *importance* of our technological knowledge under the expected conditions of our action. This economic judgment is our only concern. Technological knowledge *as such* is immaterial for economics. Even if information on particular circumstances of time and place was communicated through prices this would be of secondary importance. Yet, without reference to our property we could not possibly select knowledge in terms of importance. Moreover, once we own property we then know which kind of knowledge could be useful. It is this property that directs our learning toward useful channels.

Property in this sense encompasses the disposition of goods. However, there is a more fundamental sense in which economic knowledge is linked to property, namely, to appropriation. This is because the creation of any good is more fundamental than the disposition of this good. Appropriation is at the core of property itself.[59] Thus, the question which kind of technology serves the supposedly most important end under prevailing conditions cannot be answered independently of the property regime. This is of utmost importance.

It is clear that in *all* property regimes the ultimate end of action is to enjoy the services of consumers' goods. And in *all* property regimes consumers' goods can only originate from human productivity, that is, from original appropriation, from production, and from exchange.

However, in capitalism there is but one way to enjoy the goods of our neighbors. One has to acquire them through exchange on the market, that is, one has to give to its owner some other good that he prefers to the one we desire. Yet this good must of necessity have been produced beforehand. Exchange thus implies mutual production of goods or values. It implies further that only value-productive actions prove to be successful. Therefore, only value-productive knowledge is selected and sought.

Of course there can be error and failure. Our technological judgments can be wrong. We can also discover after our action that we have not sought the most important ends under prevailing conditions. However, all this is irrelevant for the question at stake. Under private property, all of our judgments concern the production of goods. Producing goods is the unique occupation of all members of society. In this endeavor they select the knowledge they want to apply.

The case is different in a system featuring a coercive agency. Here, by definition, a knowledge different from value-productive knowledge is, at least sometimes, more important. (The extent of "sometimes" depends on the range of activities and on the permanence of the coercive agency.) There is, for example, the knowledge of how to reap the fruits of other persons' labor without provoking their resistance. There is also the knowledge of how to acquire control and ownership of the coercive agency. And there is the knowledge of how to persuade one's neighbors about the utility of this system, too.[60] One can add an infinite number of items to this list. The result, in general terms, remains the same: a violent agency necessarily affects the knowledge structure of the society upon which it is imposed.[61]

Property, Calculation, and the Structure of Production

Yet, this is not all that private property implies for the selection of knowledge. The greatest benefits accrue to those who participate in the division of labor. Most of our knowledge is valuable only because there is a market. As we have noted above, the market process is essentially a selection procedure. All

investment projects are compared in terms of value productivity, and only the most value-productive ones are selected (*ex ante*) for execution. On the market, *the totality of individual knowledge is continually compared in value terms*.

The value of the knowledge that the property owners venture to apply is compared through the anticipated exchanges on the market. A calculated profit means that one's knowledge is valuable under prevailing conditions. A calculated loss means that one's knowledge is not of value. Its application would take means away from more value-productive enterprises and thus prevent the application of more valuable knowledge.

To be sure, this comparison does not run in terms of freely-floating bits of knowledge that are detached from private property. Rather, each entrepreneur tries to use his property in the most value-productive way that is known to him. Through the pricing process, this value, productivity is compared to the value productivity that can be achieved by the action of other property owners. The entrepreneur makes an estimate of the proceeds that he will realize through his venture. Then, by means of calculation, the entrepreneur knows how much of his property he can give in exchange for a capital good. He cannot give more than the discounted marginal value product that the capital good will earn. And he can appropriate it only if no other entrepreneur knows of a way to realize a higher discounted marginal value product of this capital good. Thus, each single factor of production accrues to him who knows of the supposedly most value-productive way to use it. This knowledge is marginal value knowledge. It is the knowledge about the most value-productive employment of each of the exchanged goods which, at the time of the exchange, is known to their owners.

It might be objected that one could conceive of market participants who had more value-productive ideas than their fellows but who unfortunately lacked the capital to realize their endeavors. There is no use in discussing the probability of such an event. Indeed, the wealth of a man is often indicative of his expertise. Yet, for the sake of the argument, let us assume the above case to be given. The first thing that such persons could do is to try to convince some of their fellows to lend them the funds necessary for their projects. If they do get the capital, then everything is fine for them and the rest of mankind. However, what if they find nobody willing to support them? Would this not be to the great disadvantage of all the other market participants who are now deprived of the most value-productive investment?

Those who argue in this way fail to see that one cannot divide the market at will. A person's property is not only the fund out of which he buys capital goods; it is the fund for his consumption as well. The very fact that our would-be promoter does not obtain the necessary funds means that all other market participants do think other investments to be more value productive. One cannot separate property from the possibility of error; nobody can be free only to succeed. If one fails to use one's property in a value-productive manner, then one consumes it in one's errors.[62]

Let us recall that *ex ante* calculation does not consist of computation based on past market prices; it is a judgment in quantitative terms that relies on an expectation of future prices. However, and this is the important point, *calculation is the source of present market prices* as they are continually formed in the market process. Present prices are starting points for our estimates. We regard them as the products of all prevailing conditions of action. Considering the intervening changes of these conditions we form, by way of *Verstehen*, a judgment upon the prices of the future. Without the basis provided by present money prices, this procedure would be impossible.[63] It is indirectly that present prices permit calculation and thus the selection of the most value-productive technology under prevailing conditions. They can have no communicative function because they are only the, if indispensable, starting point for our understanding of the future. If any prices could have a communicative function it would be future prices, but tomorrow's prices can never be known today.

Moreover, since without private property there could be no successful calculation, marginal value knowledge could not be recognized, either. Property and calculation are clearly prior to the recognition of the knowledge that should be applied.[64] This fact illustrates the most important problem of socialist planning, namely, knowing what to do next. Even if it knew the ends that should be attained, it would be incapable of identifying marginal value knowledge. Hence, it would not know which actions were, at each point of time, most value productive in bringing those ends about. Private property is required to recognize these actions; without it, no capital structure can be built.

Conclusion

We now come back to the question of why "socialist planners

would be stymied by inability to perform calculations in the narrow arithmetic sense"[65] even if they possessed all the information conveyed by genuine market prices.

Only past market prices can be perceived and could thus convey any information at all. However, it is not past but future prices that are of any interest to the market participants. Furthermore, as there exists no general relationship between past and future prices one cannot deduce the latter from the former. Thus, it is not knowledge but entrepreneurial *judgment* that drives the market process.

Most importantly, all relevant information (in the economic sense) about technology is *not the cause but the outcome* of action. The market process is not a learning but essentially a selection process. The competition for the factors of production permits only the realization of those technological ideas which, under given circumstances, are supposedly most value productive. This competition, however, relies on calculations. Without them, the marginal value knowledge could not be identified.

Why is it that market prices are superior to the prices that central planners are dealing with? Hayek, Kirzner, and their followers believe that market prices are better because of *their junction*, namely, that of communicating information. Mises, in contrast, showed that the primary virtue of market prices is attributable to their *origin*. Genuine market prices originate from voluntary cooperation; they can never be simulated. *They can never be grasped by intellectual inquiries because their significance does not relate to truth or knowledge*. They can only be brought about by entrepreneurial *actions*. For only the unhampered use of private property assures a selection that is inspired by value productivity.

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[1] Cf., for example, Peter J. Boettke, *The Political Economy of Soviet Socialism* (Boston: Kluwer, 1990), pp. 23ff; Gerald P. O'Driscoll, *Economics as a Coordination Problem* (Lawrence: University of Kansas Press, 1977), pp. 16ff; Richard M. Ebeling,

"Economic Calculation Under Socialism: Ludwig von Mises and His Predecessors," in *The Meaning of Ludwig von Mises*, Jeffrey M. Herbener, ed. (Auburn, Ala.: Ludwig von Mises Institute, 1993), pp. 56ff; Jesús Huerta de Soto, "Entrepreneurship and the Economic Analysis of Socialism," in *New Perspectives on Austrian Economics*, Gerrit Meijer, ed. (London: Routledge, 1995), pp. 228ff; Israel M. Kirzner, *The Meaning of Market Process* (London: Routledge, 1992), pp. 51f, 100f; Don Lavoie, *Rivalry and Central Planning: The Socialist Calculation Debate Reconsidered* (New York: Cambridge University Press, 1985); Karen Vaughn, "Economic Calculation Under Socialism: The Austrian Contribution," *Economic Inquiry* 18 (1980); Leland B. Yeager, "Mises and Hayek on Calculation and Knowledge," *Review of Austrian Economics* 7, no. 2 (1994): 93–109.

[2] Cf., for example, Jeffrey M. Herbener, "Ludwig von Mises and the Austrian School of Economics," *Review of Austrian Economics* 5, no. 2 (1991): 33–50; idem, "Economic Calculation and the Question of Arithmetic," *Review of Austrian Economics* 9, no. 1 (1996); Hans-Hermann Hoppe, *A Theory of Socialism and Capitalism* (Boston: Kluwer, 1989); idem, "Socialism: A Property or Knowledge Problem?" *Review of Austrian Economics* 9, no. 1 (1996): 143–49; Murray N. Rothbard, "Ludwig von Mises and Economic Calculation Under Socialism," in *The Economics of Ludwig von Mises*, Lawrence Moss, ed. (Kansas City: Sheed and Ward, 1976); idem, *Man, Economy, and State*, 3rd. ed. (Auburn, Ala.: Ludwig von Mises Institute, 1993), esp. pp. 542ff, 825ff, 830ff; Joseph T. Salerno, "Ludwig von Mises as Social Rationalist," *Review of Austrian Economics* 4 (1990): 25–54; idem, "Mises and Hayek Dehomogenized," *Review of* Austrian *Economics* 6, no. 2 (1993): 113–46; idem, "Reply to Leland B. Yeager," *Review of Austrian Economics* 7, no. 2 (1994): 111–25.

[3] Commenting on Hayek's article "The Present State of the Debate" (in *Collectivist Economic Planning*, F. A. Hayek, ed. [London: Routledge, 1935], p. 211), Mises says: "Hayek has shown that the use of equilibrium for economic calculation presupposes knowledge of the future valuations of the consumers. However, he has seen in this merely a problem of the practical application of the equations, not a fundamental and unsurmountable obstacle for their practical use." I am indebted to Dan Cristian Comanescu for bringing this passage to my attention. Consider also the following statement from Mises: "We do not deal with the problem of whether or not the director will be able to anticipate future conditions. What we have in mind is

that the director cannot calculate from the point of view of his own present value judgments and his own present anticipation of future conditions, whatever they may be." Ludwig von Mises, *Human Action*, 3rd ed. (Chicago: Regnery, 1966), p. 700, my emphasis. Here Mises stresses the role of calculation, that is, of a method of thought. He explicitly denies the importance of knowledge for the issue under consideration.

[4] Hayek says: "The peculiar character of the problem of a rational economic order is determined precisely by the fact that the knowledge of the circumstances of which we must make use never exists in concentrated or integrated form but solely as the dispersed bits of incomplete and frequently contradictory knowledge which all the separate individuals possess." F.A. Hayek, "The Use of Knowledge in Society," in idem, *Individualism and Economic Order* (Chicago: University of Chicago Press, 1948), p. 77. Moreover, Hayek explicitly contended that economic calculation would be possible without private property: "It is the great contribution of the Pure Logic of Choice that it has demonstrated conclusively that even such a single mind could solve this kind of problem only by constructing and constantly using rates of equivalence (or 'values' or 'marginal rates of substitution'), that is, by attaching to each kind of resource a numerical index which cannot be derived from any property possessed by that particular thing, but which reflects, or in which is condensed, its significance in view of the whole means-end structure." (Ibid., p. 85).

[5] Ibid., p. 33.

[6] For a statement of some of my criticisms, see Jörg Guido Hülsmann, *Logik der Währungskonkurrenz* (Essen: Management Academie Verlag, 1996), pp. 13ff, 122ff.

[7] Kirzner, *The Meaning of Market Process*, p. 117. For a forerunner of Kirzner see Otto Conrad, *Der Mechanismus der Verkehrswirtschaft* (Jena, 1931), pp. 36ff. Conrad advocated what he called a "road sign" theory of prices. The first instance of an equilibration process is probably Spencer's law of adaptation. According to this law, "the ultimate development of the ideal man is logically certain." *Social Statics*, 1st ed. (reprint; New York: Robert Schalkenbach Foundation, 1970), p. 55–57. The driving force in the adaptation process is man's moral sense (see ibid., pp. 83ff).

[8] See Kirzner, *The Meaning of Market Process*, p. 151; and idem, *Competition and Entrepreneurship* (Chicago: University of Chicago Press, 1973), p. 10.

[9] See also Kirzner, *The Meaning of Market Process*, pp. 139ff; and idem, *Competition and Entrepreneurship*, p. 228.

[10] Hayek, *Individualism and Economic Order*, pp. 90f: "Only to a mind to which all these facts were simultaneously known would the answer necessarily follow from the facts given to it. The practical problem, however, arises precisely because these facts are never so given to a single mind, and because, in consequence, it is necessary that in the solution of the problem knowledge should be used that is dispersed among many people."

[11] "We cannot expect that this problem will be solved by first communicating all this knowledge to a central board which, after integrating all knowledge, issues its orders." Ibid., p. 84. On this point and its implications see in particular Hoppe, "Socialism: A Property or Knowledge Problem?"

[12] For a critique of coordination as a relevant criterion for economic theory, see also Stephen Shmanske, "On the Relevance of Policy to Kirznerian Entrepreneurship," *Advances in Austrian Economics* 1 (1994): 204ff.

[13] Ibid., pp. 85f.

[14] Kirzner, *The Meaning of Market Process*, p. 36. He also uses other expressions for this claim. Thus he says, for example, that "opportunities for pure profit [are] able to attract the attention of the most alert entrepreneurs," idem, *Perception, Opportunity, and Profit* (Chicago: University of Chicago Press, 1979), p. 151. See also Israel M. Kirzner, *Discovery and the Capitalist Process* (Chicago: University of Chicago Press, 1985), pp. 27ff, 96, 132. Kirzner also advances Hayek's claim that a mode of organization can generate learning, see, Perception, Opportunity, and Profit, p. 147; and Hayek, *Individualism and Economic Order*, p. 95. Esteban Thomson, a student of Kirzner's, puts forth the same argument: "Market prices . . . are not merely an efficient way of aggregating and transmitting information already known by someone but, more important, they are the stimulators of a discovery process." Esteban Thomson, *Prices and Knowledge* (London: Routledge, 1992), p. 37.

[15] Kirzner, *The Meaning of Market Process*, p. 26.

[16] This point is lucidly stated by Hans-Hermann Hoppe in "On Certainty and Uncertainty, Or: How Rational Can our Expectations Be?" *Review of Austrian Economics* 10, no. 1 (1997): 49–78.

[17] Kirzner, *The Meaning of Market Process*, p. 27.

[18] Ibid., p. 160.

[19] Ibid., p. 146, emphasis added.

[20] Israel M. Kirzner, *Discovery, Capitalism, and Distributive Justice* (Oxford: Basil Blackwell, 1989), p. 24; see also idem, *Discovery and the Capitalist Process*, p. 109.

[21] Ibid., p. 160.

[22] Kirzner did not always advocate an attraction theory, see *Competition and Entrepreneurship*, p. 227, and idem, *Perception, Opportunity, and Profit*, p. 130. Yet, he always believed that a theory of the market process has to rely on a way to determine choices by the physical environment of action. In his *Competition and Entrepreneurship*, he did not conceive of this determination as running through price spreads. Rather he stressed, in a more general way, that the "newly acquired information concerning the plans of others can be expected to generate, for the succeeding period of time, *a revised set of decisions*. The overambitious plans of one period will be replaced by more realistic ones; market opportunities overlooked in one period will be exploited in the next." Ibid., pp. 10 and 70ff; also see *The Meaning of Market Process*, pp. 48, 16, 129. To be sure, this is mere assertion as well. Nowhere does Kirzner give an argument as to *why* the plans will be revised and *why* they will be more realistic.

[23] Kirzner, *Discovery and the Capitalist Process*, p. 83.

[24] Kirzner, *Competition and Entrepreneurship*, p. 14.

[25] Kirzner, *Perception, Opportunity, and Profit*, pp. 24 and 33.

[26] Cf. also Eran Binenbaum, "Kirzner's Core Concepts," in *New Perspectives on Austrian Economics*, Meijer, ed., p. 146ff.

[27] Kirzner, *The Meaning of Market Process*, p. 35.

[28] Ibid., p. 43.

[29] "What the introduction of the pure entrepreneur means, however, is that for our analysis we create a decisionmaker who starts without any means whatsoever." Kirzner, *Competition and Entrepreneurship*, pp. 40, and 16, 22, 44, 47ff, 53f, 83.

[30] Even though Mises advocated a functional distinction between capitalists and entrepreneurs he emphasized that "it is impossible . . . to imagine an entrepreneur without any resources" and that entrepreneurial risks "are inseparable from the ownership of the material means of production" (my translation). "Les hypothèses de travail dans la science économique," in *Cournot, nella economiae nella filosofia*, Padora, ed. (Venice: Facoltà de economia e commercio, 1939), p. 118.

See also Shmanski, "The Relevance of Policy in Kirznerian Entrepreneurship," pp. 214–19.

[31] Cf. Murray N. Rothbard, "Professor Hébert on Entrepreneurship," *Journal of Libertarian Studies* 7, no. 2 (1985): 283ff. It is remarkable that nowhere does Kirzner address this critique.

[32] Cf., Kirzner's *Competition and Entrepreneurship*, pp. 33f and 71 ff; idem, *Perception, Opportunity, and Profit*, pp. 5ff and 167; idem, *Discovery and the Capitalist Process*, pp. 81f, 153ff; and idem, *The Meaning of Market Process*, pp. 124ff.

[33] Cf., Kirzner *Competition and Entrepreneurship*, pp. 29, 108, 118; idem, *Perception, Opportunity, and Profit*, pp. 14f; idem, *Discovery and the Capitalist Process*, p. 154; and idem, *The Meaning of Market Process*, p. 154f.

[34] Israel M. Kirzner, *The Economic Point of View* (New York: D. Van Nostrand, 1960), pp. 108ff.

[35] Lionel Robbins, *An Essay on the Nature and Significance of Economic* Science, 2nd ed. (London: Macmillan, 1935), pp. 24ff.

[36] Kirzner, *Discovery and the Capitalist Process*, p. 83.

[37] This is regularly pointed out by Kirzner's critics. See Jack High, "Alertness and Judgment Comment on Kirzner," in *Method, Process, and Austrian Economics*, Israel M. Kirzner, ed. (Lexington, Mass.: Lexington Books, 1982), p. 165; and Emile Wubben, "Austrian Economics and Uncertainty," in *New Perspectives on Austrian Economics*, Meijer, ed., p. 130f.

[38] This crucial fact has already been stated by Henry Hazlitt: "It is not enough that the entrepreneur be 'alert' and that he 'perceive' an opportunity; he must act on his alertness and perception. . . . By omitting this link [Kirzner] tends to overstress the entrepreneur's alertness and perception while under-emphasizing his courage in taking risks. . . . It is not always true that the entrepreneur perceives an opportunity. He thinks he perceives it He perceives an apparent opportunity. In fact, *he is betting on an assumed future condition*. What he acts on may not be a perception but a *guess*. . . . Every entrepreneur is pitting his own guess or 'perception' against the composite guess or perception of all the rest" Hazlitt, "Review of *Competition and Entrepreneurship*," *The Freeman* (December 1974): 759.

[39] Kirzner, *The Meaning of Market Process*, p. 146.

[40] Roger Garrison remarks perceptively that it is a "fundamental point of logic" that at "some points in the analysis . . . an entrepreneurial function lying outside the supply-and-

demand framework is necessary." "Equilibrium and Entrepreneurship," *Advances in Austrian Economics* 2 (1995): 68 and 76. However, it is not alertness that fulfills this function but action based on a judgment about the future.

[41] Kirzner, *Competition and Entrepreneurship*, p. 42, emphasis added. See also idem, *The Meaning of Market Process*, p. 129.

[42] This point is stressed by all subjectivists. Cf., for example, Ludwig Lachmann, *Expectations and the Meaning of Institutions*, Don Lavoie, ed. (London: Routledge, 1994), esp. chaps. 16 and 17; Brian J. Loasby, "Economics of Dispersed and Incomplete Information," in *Method, Process, and Austrian Economics*, Kirzner, ed., pp. 122f; G.L.S. Shackle, *Epistemics and Economics* (Cambridge, England: Cambridge University Press, 1972), p. 91.

[43] Cf. on this point Salerno, "Mises and Hayek Dehomogenized": 126f.

[44] Cf. Hans-Hermann Hoppe, *Kritik der kausalwissenschaftlichen Sozialforschung* (Opladen: Westdeutscher Verlag, 1983), and idem, *A Theory of Socialism and Capitalism* (Boston: Kluwer, 1989), chap. 6.

[45] Cf. Ludwig von Mises, *Theory and History* (Auburn, Ala.: Ludwig von Mises Institute, 1985).

[46] Cf. Roger W. Garrison, "Austrian Economics as the Middle Ground," in *Method, Process, and Austrian Economics*, Kirzner, ed., pp. 131ff.

[47] Kirzner, *The Meaning of Market Process*, pp. 23f.

[48] Kirzner, *Competition and Entrepreneurship*, pp. 86f.

[49] See in particular Eugen von Böhm-Bawerk, "The Law of Cost," in idem, *Capital and Interest*, vol. 2 (South Holland, Ill.: Libertarian Press, 1959), pp. 248–56.

[50] Cf. Mises, *Human Action*, pp. 333ff. He also uses the expression "pricing process" and "process which makes the prices of the factors of production spring from the prices of products." Ibid., p. 358.

[51] See Hayek's brilliant article on "The Meaning of Competition," in idem, *Individualism and Economic Order*, pp. 92ff.

[52] For an excellent exposition of the meaning of the market process see Salerno, "Mises and Hayek Dehomogenized": 124ff.

[53] Israel M. Kirzner, "Reflections on the Misesian Legacy in Economics," *Review of Austrian Economics* 9, no. 2 (1996):

144–45.

[54] Ibid.: 146–47.

[55] Kirzner, *Perception, Opportunity, and Profit*, p. 30.

[56] Mises, *Human Action*, p. 336. There are, of course, countless other statements on how Mises saw the market process. However, this quote has been given by Kirzner ("Reflections on the Misesian Legacy in Economics": 145) to show that Mises also had in mind a corrective learning process. However, no such interpretation can be inferred from it.

[57] Cf. Hayek, *Individualism and Economic Order*, p. 33.

[58] Kirzner, "Reflections on the Misesian Legacy in Economics": 144ff.

[59] "Appropriation is a natural phenomenon given by providence, essential to life; property is nothing but an appropriation that has become a right through labor." Frederic Bastiat, "Propriéte et loi," in *Les libéraux*, Pierre Manent, ed. (Paris: Hachette, 1986), p. 230.

[60] Murray N. Rothbard, *Man, Economy, and Stau*, p. 776: "In the market, the fittest are those most able to serve the consumers. In government, the fittest are either (1) those most able at wielding coercion or (2) if bureaucratic officials, those best fitted to curry favor with the leading politicians or (3) if politicians, those most adroit at appeals to the voting public." See also idem, *Power and Market*, 2nd ed. (Kansas City: Sheed Andrews and McMeel, 1970), pp. 18ff.

[61] Leonard E. Read has analyzed this effect under the heading of "unnatural specialization." See Leonard E. Read, "How Socialism Harms the Economy," in idem, *Anything That's Peaceful*, 2nd ed. (Irvington-on-Hudson, N.Y.: Foundation for Economic Education, 1992), pp. 78ff. With great clarity he states: "Take, for example, the moon project. . . putting aside personal prejudices against this multibillion dollar project, it is obvious that it would not, at this time, emerge from the free market. Now, consider the countless specializations that this single government project call into existence. Take only one of them: finding out how to cushion the landing of a TV set on the moon. . . . This project qualifies as an unnatural specialization." Ibid., p. 78. He adds: "the fact is that tens of millions of American citizens are now engaged and wholly dependent on *unmarketable* specializations [and] more and more millions are becoming dependent on such forced exchange of their unwanted specializations for those goods and services without which they cannot live." Ibid., p. 80. Cf. also the analogous remarks of Hans-

Hermann Hoppe on the effects of socialism on the character structure of society and the evolution of nonproductive personality types in his *A Theory of Socialism and Capitalism*, esp. chap. 3.

[62] For analogous reasoning see Murray N. Rothbard, "Toward a Reconstruction of Utility and Welfare Economics," in *On Freedom and Free Enterprise: Essays in Honor of Ludwig von Mises*, Mary Sennholz, ed. (Irvington-on-Hudson, N.Y.: Foundation for Economic Education, 1995).

[63] For the regression theorem see Mises, *Human Action*, pp. 408ff. Of course in the case of barter, Mises realized that past exchange ratios are not necessary to the forecasting of future ones. Ibid., p. 336. On economic calculation and the regression theorem, see also Hülsmann, *Logik der Währungskonkurrenz*, pp. 133ff, 166ff.

[64] It is therefore futile to claim that "the circumstance that in fact current market prices do reflect that corrective market process . . . should convince us that an appreciation of the role of market prices stated in terms of the 'Hayekian' knowledge problem is simply a somewhat differently articulated appreciation for the calculative properties Mises taught us to understand to exist in those market prices." Kirzner, "Reflections on the Misesian Legacy in Economics": 153–54.

[65] Leland B. Yeager, "Mises and Hayek on Calculation and Knowledge": 94.

On Certainty and Uncertainty, Or: How Rational Can Our Expectations Be?

Hans-Hermann Hoppe

> The honest historicist would have to say: Nothing can be asserted about the future.
>
> Ludwig von Mises[1]

> The future is to all of us unknowable.
>
> Ludwig Lachmann[2]

I

It is possible to imagine a world characterized by complete certainty. All future events and changes would be known in advance and could be predicted precisely. There would be no errors and no surprises. We would know all of our future actions and their exact outcomes. In such a world, nothing could be learned, and accordingly, nothing would be *worth knowing*. Indeed, the possession of consciousness and knowledge would be useless. For why would anyone want to know anything if all future actions and events were completely predetermined and it would not make any difference for the future course of events whether or not one possessed this or any knowledge? Our actions would be like those of an automaton—and an automaton has no need of any knowledge. Thus, rather than representing a state of perfect knowledge, complete certainty actually eliminates the value of all knowledge.

Obviously, we do not inhabit a world of complete certainty. We cannot predict all of our future actions and their outcome. There are in our world surprises. Our knowledge of future events and outcomes is less than perfect. We make errors, can distinguish between failure and success, and are capable of learning. Unlike for an automaton, for us knowledge is valuable. To know something or not makes a difference. Knowledge is not

of predetermined events and states of affairs, but knowledge of how to *interfere with* and *divert* the natural course of events so as to *improve* our *subjective well-being*. Knowledge does not help us predict an unalterable course of events but is a tool of purposefully *changing* and hopefully *bettering* future outcomes and events. Our actions, unlike the operations of an automaton, are not a series of predetermined events which the knower cannot influence and with respect to whose outcome he is indifferent. Rather, our actions are sequences of decisions (choices) of altering the predetermined course of events to our advantage. We are never neutral or indifferent toward the course of future events. Instead, we always *prefer* one course of events over another, and we use our knowledge to bring about our preferences. For us, knowledge is practical and effective, and while it is imperfect and subject to error, it is the only means of achieving human betterment.

II

From the recognition of the fact that perfect foresight eliminates the very need of knowing and knowers, and that such a need only arises if, as in our world, foresight is less than perfect, and insofar as knowledge is a means of bringing about preferences, it does not follow that everything is uncertain. Quite to the contrary. In a world where everything is certain, the idea of certainty would not even come into existence. The idea of certain knowledge requires, as its logical counterpart, the idea of uncertainty. Certainty is defined in contrast to uncertainty, and not everything can be certain. Likewise, uncertainty cannot be defined without reference to certainty, and not all knowledge can be uncertain. It is this latter part of one and the same conclusion which critics of the model of perfect foresight, such as Ludwig Lachmann, have failed to recognize. From the correct insight that we do not inhabit a world of perfect knowledge it does not follow that we live in a world of perfect uncertainty; i.e., in a world with no certainly at all, and from the fact that I cannot predict all of my and others' future actions it does not follow that I can say nothing at all about them. In fact, even if I do not know everything about my future actions, for instance, I do know something to be true about each and every one of them: that I will, as long as I act, employ my knowledge to interfere in the natural course of events so as to—hopefully—bring about a more preferable state of affairs.

Later on, more will be said about the importance of this insight. But it is worth emphasizing from the outset that the idea of perfect or radical uncertainty (or ignorance) is either openly contradictory insofar as it is meant to say "everything about the future is uncertain except that there will be uncertainty—about this we are certain," or it entails an implicit contradiction if it is meant to say "everything is uncertain and that there is nothing but uncertainty, is uncertain, too." (I do know such and such to be the case, and I do not know whether such and such is the case or not.) Only a middle-of-the-road position between the two extremes of perfect knowledge and perfect ignorance is consistently defensible[3]: There exists uncertainty but this we know for certain. Hence, also certainty exists, and the boundary between certain and uncertain knowledge is certain (based on certain knowledge).

III

Nothing about the external, physical world is or can be known with certainty—except for those rather abstract but universal and real things that are already implied in the certain knowledge of acting and action: that this must be a world of objects and object-qualities (predicates), of countable units, physical magnitudes, and quantitative determinateness (causality). Without objects and object-qualities there can be no such thing as propositions; without countable units there can be no arithmetic; and without quantitative determinateness—the fact that definite quantities of causes only bring about definite (limited) effects—there can be no ends and means (goods); i.e., no active interference in the course of external events with the purpose of bringing about a more highly-valued end (preferred effect). Apart from the laws of propositional logic, arithmetic, and causality, however, all other knowledge about the external world is uncertain (*a posteriori*). We do not and cannot know with certainty (*a priori*) what kinds of objects and object-qualities exist, how many units of what physical dimensions there are, and what quantitative cause-and-effect relationships exist (or do not exist) between various magnitudes of various objects. All of this must be learned from experience. Moreover, experience is invariably past experience, that of past events. It cannot reveal whether or not the facts and relationships of the past will also hold in the future. We cannot but assume that this will be the case, by and large. But it cannot be ruled out categorically that

we might be mistaken, and that the future will be so different from the past that all of our past knowledge will be entirely useless. It is possible that none of our instruments or machines will work anymore tomorrow, that our houses will collapse on top of us, that the earth will open up, and that all of us will perish. It is in this sense that our knowledge of the external physical world must be ultimately regarded as uncertain.

Notwithstanding this ultimate uncertainty of our knowledge concerning the external world, however, as a result of contingent circumstances, the relative stability and regularity in the concatenation of external objects and events, it has been possible for mankind to accumulate a vast and expanding body of practically certain knowledge. This knowledge does not render the future predictable, but it helps us predict the effects to be produced by definite actions. Even though we do not know *why* things work the way they do, and whether or not they *must* always work in this way, we do know with complete practical certitude *that* and *how* certain things will operate now and tomorrow. One would never know it from the writings of the apostles of radical uncertainty, but an innumerable and growing number of events (outcomes) can be produced literally at will and predicted with almost perfect exactitude. My toaster will toast, my key will open the door, my computer, telephone, and fax will work as they are supposed to, my house will protect me from the weather, cars will drive, airplanes will fly, cups will still hold water, hammers will still hammer, and nails will still nail. Much of our future is, practically speaking, perfectly certain. Every product, tool, instrument or machine represents a piece of practical certainty. To claim, instead, that we are faced with radical uncertainty and that the future is to all of us unknowable is not only self-contradictory but also appears to be a position devoid of common sense.

IV

Our practical certainty concerning future outcomes and events extends even further. There are many future events about whose outcome we are practically certain because we literally know how to *produce* them (the outcome is under our complete practical control). We can also predict with practical certainty a great and growing number of outcomes outside and beyond anyone's control. Sometimes my tools, machines, and products are defective. My toaster does not toast, my telephone is silent, a

hurricane or an earthquake has destroyed my house, my airplane crashes, or my cup is broken. I had no knowledge that this would happen to me here and now, and hence I could not have acted differently from the way I did. I am thus taken by surprise. But my surprise and my uncertainty must not be complete. For while I may know absolutely nothing about the single event—this cup will now break, this airplane will now crash, my house will be destroyed in an earthquake two years from now—and thus cannot possibly predict and alter any such event, I may know practically everything with respect to the whole class of events (broken cups, crashing airplanes, earthquakes) of which this single event is a member. I may know, based on the observation of long-run frequency distributions, that airplanes of a certain type crash every so often, that one in ten thousand cups produced is defective, that machines of such and such a type function on the average for ten years, and that an earthquake strikes a certain region on the average twice a year and destroys, in the long run, one percent of the existing housing stock per year. Then, although the single event still comes as a surprise, I do know with practical certainty that surprises such as these exist and how frequent they are. I am surprised neither by the type of surprise nor its long-run frequency. My surprise is only relative. I am surprised that such and such happens here and now rather than elsewhere or later. But I am not surprised that it happens at all, here, there, now, or later. In thus delineating the range and frequency of possible surprises, my uncertainty concerning the future, while not eliminated, is systematically reduced.

Cases of limited surprises or reduced uncertainty are, of course, what Frank Knight First classified as “risk” (as opposed to “uncertainty”), and what Ludwig von Mises, building on Knight and the work on the foundations of probability theory of his mathematician brother, Richard von Mises, would later define as “class probability” (as opposed to “case probability”)[4]; “Class probability means: We know or assume to know, with regard to the problem concerned, everything about the behavior of a whole class of events or phenomena; but about the actual singular events or phenomena we know nothing but that they are elements of this class.”[5] I know nothing about whether this or that cup will be broken, and I know nothing about whether my house or your house will be destroyed by a tornado within the next year, but I do know from the observation of long-run frequency distributions regarding cups and tornadoes, for

instance, that no more than one in ten thousand cups is defective and that of a thousand houses in a given territory, no more than one per year on the average will be destroyed. If, based on this knowledge, I adopted a strategy of always predicting that the next cup will not be broken, and that my house will not be destroyed next year, I would commit errors. But in the long run, the strategy would assure more successes than errors: my errors would be 'correct' errors. On the other hand, if I adopted the strategy of predicting always that the next cup will be broken and my house destroyed, I might well be correct. But in the long run this strategy would assuredly fail: I would be erroneously correct. Whenever the conditions of class probability are met and we do not know enough to avoid mistakes altogether but enough to make only correct mistakes, it is possible to take out insurance. As a producer of cups, for instance, I know that on the average I will have to produce 10,001 cups in order to have 10,000. I cannot avoid broken cups, but I can insure myself against the risk of broken cups by including it, as a regularly-occurring loss, in my cost-accounting, and by thus associating a correspondingly-higher cost with my production of cups. Similarly, I cannot avoid tornadoes, but I can insure myself against them. Because tornado losses are large and infrequent in relation to the size and operations of my household, it would be difficult (although not impossible) to provide insurance internally (within my household). But it is possible to pool my tornado risk with yours and that of other households or firms in a given region. Not one of us knows who will be affected by the risk in question, but based on the knowledge of the objective long-run frequency of tornadoes and tornado damage for the entire region, it is possible to calculate a premium against payment of which each one of us can be insured for this hazard.

It is not only the knowledge incorporated in our tools, instruments, and machines, then, which provides practical certain information about our future: in this case, knowledge of how we will generate various singular events. Also, the knowledge incorporated in any form of insurance, whether internally practiced or by method of pooling, represents practical certain knowledge: in this case, knowledge of how to be prepared for various classes of events whose individual occurrence is beyond anyone's control. To be sure, while the conditions of class probability and insurability can be stated exactly, with certainty, the question of whether or not there exist insurable events, which ones, and the various expenses of

insuring against them, cannot be answered with certainty. On the one hand, the knowledge of objective probability distributions must be acquired through observational experience, and as is the case for all knowledge based on such experience, we can never know whether or not past regularities will also hold in the future. We may have to make revisions. On the other hand, even in order to collect such information, it is necessary that various singular events be classified from the outset as falling into one and the same class (of events). This cup or tornado and that cup or tornado are both members of the same class of cup or tornado. Yet any such classification is tainted with uncertainty. The joint classification of a series of singular events is only correct (for the purpose of insurance) if it holds that I do not know more about any of the single class members than that each one of them is a member of the same class. If I learned, however, that one cup was made of clay A and another from clay B, for instance, and that this fact makes a difference for the long-run frequency of defects, my initial classification would become faulty. Similarly, I might learn from experience that tornado damage on the eastside of a given valley is systematically higher than on its western side. In this case, too, my original classification would have to be changed, new and revised classes and subclasses of insurable events would have to be formed, and new and different insurance premiums would have to be calculated. These uncertainties notwithstanding, however, it deserves to be pointed out that as a contingent fact of human life, the actual range of insurance, and hence of relatively certain information about future events and outcomes, is vast and growing: We know how many ships will likely sink, how many airplanes crash, how often it will rain or shine, how many people of a given age will die, how many hot water-boilers will explode, how many people will be struck by cancer, that more women than men will be affected by breast cancer, that smokers will die earlier than non-smokers, that Jews suffer more frequently from Tay-Sachs disease than Gentiles, and Blacks more from sickle cell anemia than Whites, that tornadoes, earthquakes, and floods occur here but not there, etc. Our future is most definitely *not* unknowable.

V

Little of this ever attracts the attention of theoreticians of radical uncertainty. The existence of a practical working technology and of a vast and flourishing insurance industry constitutes an

embarrassment for any theory of radical uncertainty. If pressed sufficiently hard, of course, Lachmann and his followers would probably admit the undeniable and, as if all of this did not matter, quickly move onto another problem. So far, it might be pointed out with some justification, attention has been directed almost exclusively either to the technological rather than the economic aspect of action—to accidents rather than to actions. The phenomenon of radical uncertainty, however, arises in a different arena. While it may be possible to predict the physical outcomes *if* such and such an action is taken, and while it may be possible also to predict the pattern of various physical events entirely outside of human control, matters are completely different when it comes to predicting our own future actions. I can predict that my toaster will toast if I employ it in a certain way, and I can predict that toasters generally do not work longer than ten years, but presumedly I cannot predict whether or not I will actually employ my toaster in the future, nor could I have predicted before it actually happened that I ever wanted—and constructed or bought—a toaster in the first place. It is here, in the arena of human choices and preferences, where supposedly radical uncertainty reigns.

Lachmann and his followers are correct in emphasizing that the problem of predicting my and others' future actions is categorically different from that of predicting the physical outcomes of *given* actions or of *natural* events. In fact, the destructive part of Lachmann's argument is largely correct even though it is hardly new (and entirely insufficient to establish his constructive thesis of radical uncertainty).[6] This is the proof that not only the idea of perfect foresight, underlying general equilibrium theory, is mistaken, but likewise the idea, advanced by rational expectations theorists, that all human uncertainty can be subsumed under the heading of insurable risks: that the uncertainty concerning our future actions in particular is no different from that regarding the future of natural events, such that we can, based on our observation of long-run frequency distributions, predict their general pattern in the same way as we can predict the pattern of earthquakes, tornadoes, cancer, or car accidents, for example.

As Lachmann points out, and as Frank Knight and Ludwig von Mises explained long before, the new theory of rational expectations suffers from essentially the same deficiency as the old general equilibrium model of perfect foresight: it cannot account for the phenomenon of learning and hence, of

knowledge and consciousness. Rational expectation theorists only replace the model of man as a never-failing automaton with that of a machine subject to random errors and breakdowns of known types and characteristics. Rather than possessing perfect knowledge of all singular (individual) actions, man is assumed to possess merely perfect knowledge of the probability distribution of all future classes of actions. He is assumed to commit forecasting errors, but his errors are always correct errors. False predictions never require a revision of a person's given stock of knowledge. There is no learning from success or failure and, hence, there is no change, or only predictable change, in the future pattern of human actions. Such a model of man, Knight, Mises, and Lachmann agree, is no less faulty than the one it is supposed to replace. It not only stands in manifest contradiction to the facts, but any proponent of this model is also inevitably caught up in logical contradictions.

First off, if our expectations (predictions) concerning our future actions were indeed as rational as rational expectation theorists believe them to be, this would imply that it would be possible to give an exhaustive classification of all possible actions (just as one could list all possible outcomes of a game of roulette or all possible locations of a physical body in space). For without a complete enumeration of all possible types of actions there can be no knowledge of their relative frequencies. Obviously, no such list of all possible human actions exists, however. We know of a great number of types of action performed then or now, but this list is always open and incomplete. Indeed, actions are designed to alter the natural course of events in order to bring about something as yet non-existent. They are the result of creative imagination. New and different actions are constantly added to the list, and old ones dropped. For instance, new or different products and services are constantly added to the pre-existing list of products and services, while others disappear from the list. However, something as yet non-existent—a new product—cannot appear on any list until after it has been imagined and produced by someone. Even the producer of a new product X does not know—and could not have predicted—anything regarding the relative frequency of actions such as the supply of or the demand for X before he had actually had the new idea of X—yet any new product idea and any new product must necessarily upset (alter) the entire pre-existing pattern of the relative frequency of various forms of action (and of relative prices).

Moreover, if we could indeed predict our future actions,

either perfectly or subject only to random errors, then it would have to be implicitly assumed as well that every actor must possess the same (identical) knowledge as everyone else. I must know what you know, and you must know what I know. Otherwise, if our knowledge were somehow different, it would be impossible that both our predictions could be equally correct or else equally correctly wrong. Instead, either my predictions would have to be correct and yours would have to be wrong, or vice versa, and either my predictions or yours then would have to be wrongly wrong. The error (mine or yours) would not be random but systematic, for it could have been avoided had I (or you) known what you (or I) knew. This precisely is the case, however: our knowledge is not identical. You and I may know some things in common, but I also know things (about myself, for instance) that you do not know, and vice versa. Our knowledge, and hence our predictions and expectations concerning future actions, are in fact different. Yet if different actors possess different knowledge, the likelihood (frequency) of their predicting correctly or incorrectly will be different as well. Hence, neither the success nor the failure of our predictions can be considered purely random but will have to be ascribed instead, at least partially, to a person's more-and-better or less-and-worse individual knowledge.

Most importantly, however, the rational expectations' model of man as a machine which is endowed with perfect knowledge of the relative frequency distribution of all of its possible future classes of actions (but that knows nothing about any particular action falling into any one of these classes except that it is a member of such and such a class and that this class of action has such and such a relative frequency) is fraught with inescapable internal contradictions. On the one hand, as far as the assumption that all actors possess identical knowledge is concerned, any proponent of this view is caught in a performative contradiction: his words are belied by the very fact of uttering them. For there would be no need to say what he is saying if everyone else already knew what he knows. Indeed, if everyone's knowledge were identical to everyone else's, no one would have to communicate at all. That men *do* communicate demonstrates that they must assume instead, contrary to the stated assumption, that their knowledge is not identical. Rational expectations theorists, too, by virtue of presenting their ideas to the reading public, must obviously assume that the public does not yet know what *they* already know, and hence, that the

public's predictions concerning the future course of actions—in contrast to their own predictions—will be systematically flawed until it has successfully absorbed the lesson of rational expectations.

Similarly, anyone proposing the assumption of a given list of all possible forms of human actions, with its implied denial of all learning, is caught up in contradictions. For one, if his knowledge was indeed given, this would imply assuming that he already knows everything that he will ever know (otherwise, if he could learn something tomorrow that is not already known today, his list of possible classes of actions could no longer be assumed to be complete). Yet if this were the case, then inevitably the question arises how he ever came to know *this*. If he cannot learn, it would appear that he also could not possibly have *learned* to know that there is no human learning. Rather, this knowledge must have always been there, as part of his initial natural endowment, like his hands and fingers. But this idea—that our knowledge is given as our hands and fingers are given—is absurd. Knowledge is always the knowledge *of* something: the knowledge of hands and fingers, for instance, and it cannot possibly be conceived of as anything but sequentially (in time) *acquired* knowledge (as something based upon and learned about some logically and temporarily prior facts). Moreover, the denial of the possibility of learning is again belied by the proponent's action. In proposing his thesis, he cannot but assume that others can understand and possibly learn from him something that they do not yet know. And in waiting for and listening to the response of others to his proposition—by engaging in any form of argumentation—he cannot but also assume that he himself can possibly learn from what others have to say. Otherwise, if he already knew what they would respond and how he would respond to their responses, and so on, there would simply be no purpose to the whole enterprise of communication and argumentation. Indeed, if he knew in advance all of his arguments (propositions) and all possible replies and counter replies (or at least their relative frequency distribution), it would also be senseless to even engage in any form of internal, intra-personal argumentation, because his knowledge would already be complete, and he would already possess the answers to all questions. Of course, the rational expectation theorists do engage in argumentation—and no one could argue that he cannot argue without thereby falling into a contradiction—and they do conduct research (which no one would do if he already knew

everything there is to know). Hence, they demonstrate through their own actions that their model of man must be considered systematically flawed, and that man must think of himself as capable of learning something as yet unknown (unpredictable).

VI

What are the consequences as regards the nature of the social sciences that follow from the recognition of man as a learning actor? It is in the answer to this question that Knight and Mises on the one hand, and Lachmann on the other, ultimately part company. They would agree only on one consequence: that there exists a categorical difference between the logic of the natural sciences and that of the social sciences. Indeed, it follows from the recognition of man as a learning actor that the (still) dominating positivist (or falsificationist) philosophy, which assumes that all (empirical) sciences follow the same method—a uniform logic of science—is self-contradictory.[7]

It is one thing to predict the physical outcomes resulting from a given action (technology) or to predict the future pattern of a given class of natural events outside an actor's physical control (insurance). It is an entirely different matter to predict what action an actor will actually perform or against which classes of natural events he will actually want to insure himself. As far as the former problem is concerned, there is no need to dispute what positivism has to say: An actor wants to produce a certain physical result and he has an idea about what type of interference of his is capable of bringing about such a change. His idea is a hypothetical one. The actor never can be ultimately certain that his action will lead to the desired result. He can only try and see what happens. If his action is successful and the anticipated outcome is achieved, his idea is confirmed. However, even then the actor cannot be sure that the same interference will always bring about the same result. All that a confirmation adds to his previous knowledge is the certitude that his hypothesis so far has not yet been shown to be faulty. On the other hand, if his action fails, his idea is falsified and a new, revised or amended hypothesis will have to be formed. Thus, even if certainty is out of human reach, it is still possible, through a process of trial and error, that an actor may continuously improve his technological know-how. Likewise, as regards natural events outside one's control, insofar as an actor is not indifferent (unconcerned) about such events but prefers the

presence of any such event over its absence, or vice versa, he may form an idea concerning the relative frequency distribution of the entire class of the particular event in question. This idea, based as it is on the joint classification of singular events and the observation of long-run frequencies, is hypothetical, too. In this case, however, the occurrence of a single favorable or unfavorable event does not constitute a confirmation or a falsification of one's hypothesis. Rather, because the hypothesis refers to an entire class of favorable or unfavorable events and does not state anything regarding any singular event except that it is a member of this class, the question whether or not the course of future events confirms or falsifies one's idea can only be decided based on the observation of a large number of cases. This fact, although seemingly less than completely satisfying, does not imply that the experiences of confirmation and falsification, of success and failure, and of scientific progress proceeding through trial and error are any less real, however. In this case, whether or not one's hypothesis is confirmed or falsified can be decided based on the 'hard' and objective fact that an insurer—whether a single individual who insures himself over time through personal savings or an agency that insures a class of individuals across time against payment of a premium—either has, or has not, saved or collected premiums sufficient to cover the cost resulting from the occurrence of each and all unfavorable singular events. If he has, his hypothesis is temporarily confirmed, and if he has not, his hypothesis is falsified, and he will either have to change his frequency estimate and increase his savings or premiums, or he will have to revise his classification of singular events and introduce a new, further differentiated-system of classes and subclasses. Thus, even if certainty is again unattainable, continuous scientific progress is possible also with respect to man's ability to forecast accidents (natural events outside of his control).

Granted that this is so, however, the question arises if it is also true, as positivists maintain, that man can be thought of as following the same logic—of hypothetical conjecture, confirmation or falsification, and of scientific progress proceeding through a process of trial and error—when it comes to the problem of predicting his own future actions. But this must be categorically denied. For in proceeding in the way he does regarding the world of physical events inside or outside his control, an actor must necessarily conceive of himself as capable of learning (otherwise, why conduct any research at all?). Yet if

man can learn and possibly improve his predictive mastery over nature, it must be assumed that he can not only alter his knowledge, and hence his actions, in the course of time, but also that these possible changes must be regarded by him as in principle unpredictable (such that any progress in his ability to predict these changes must be considered systematically impossible). Or putting things somewhat differently, if man proceeds, as positivists say he does, to interpret a predictive success as a confirmation of his hypothesis such that he would, given the same circumstance, employ the same knowledge in the future, and if he interprets a predictive failure as a falsification such that he would not employ the same but a different hypothesis in the future, he can only do so if he assumes—even if only implicitly—that the behavior of the objects under consideration does not change over the course of time. Otherwise, if their behavior were not assumed to be time-invariant—if the same objects were to behave sometimes this way and at other times in a different way—no conclusion as to what to make of a predictive success or failure would follow. A success would not imply that one's hypothesis had been temporarily confirmed, and hence, that the same knowledge should be employed again in the future. Nor would any predictive failure imply that one should *not* employ the same hypothesis again under the same circumstances. But this assumption—that the objects of one's research do not alter their behavior in the course of time—*cannot* be made with respect to the very subject engaging in research without thereby falling into a self-contradiction. For in interpreting his successful predictions as confirmations and his failed predictions as falsifications, the researcher must necessarily assume *himself* to be a learning subject—someone who can learn about the behavior of objects conceived by him as non-learning objects. Thus, even if everything else may be assumed to have a constant nature, the researcher cannot make the same assumption with respect to himself. *He* must be a different person after each confirmation or falsification than he was before, and it is then *his* nature to be able to change his personality over the course of time.[8]

But if the positivist-falsificationist view of a uniform logic of science is rejected and the logic of the social sciences considered categorically different from that applying to the natural sciences, as Knight, Mises, and Lachmann would agree, then what is the method appropriate for the study of human action? It is here that Knight and Mises would fundamentally disagree with Lachmann.

Knight and Mises argue—correctly, as will be seen—that it does not follow from the recognition of man as a learning actor that everything concerning the future of human actions must be considered unknowable—indeed, they would consider such a view self-contradictory—but rather only that one must admit the existence of two categorically-different branches within the social sciences: of *apodictic* (*aprioristic*) theory (economics) on the one hand and of history and entrepreneurship on the other.[9] Lachmann and his followers conclude precisely this: (1) that there can be no such thing as economic theory capable of prediction at all, that all of the social sciences are nothing but history and "economists must confine their generalizations to the knowable past"[10]; and (2), that all of our predictions concerning human actions, which we must venture day in and day out, are nothing but haphazard guesses, that "man in his true humanity," as Lachmann approvingly cites Shackle, "can neither predict nor be predicted."[11]

VII

Regarding the first of Lachmann's two contentions—the impossibility of economic theory—it should be noted from the outset that this thesis—contrary to Lachmann's own claim, and in particular the self-congratulatory attitude found among some of his younger disciples—is anything but new and original, but represents instead a return to Lachmann's intellectual beginnings as a student of Werner Sombart and the "historicist" teachings of the German *Kathedersozialisten* (and thus most definitely has nothing whatsoever to do with Austrian Economics).[12]

Ludwig von Mises, the twentieth century's foremost Austrian economist and life-long critic of historicism, has thus characterized its doctrine: "The fundamental thesis of historicism is the proposition that . . . there is no knowledge but that provided by history. . . . The honest historicist would have to say: Nothing can be asserted about the future. Nobody can know how a definite policy will work in the future. All we believe to know is how similar policies worked in the past. Provided all relevant conditions remain unchanged, we may expect that the future effects will not widely differ from those of the past. But we do not know whether or not these relevant conditions will remain unchanged. Hence we cannot make any prognostication about the—necessarily future—effects of any measure considered. We are dealing with the history of the past, not with

the history of the future."[13] That this is also an accurate description of Lachmann's position is made perfectly clear by Lachmann's following comment on the so-called Austrian theory of the trade cycle: "Here we have a body of analytical thought designed to meet the requirements set out above: to depict a recurrent pattern of events with booms and depressions following each other in ceaseless succession. But can we really believe that agents witnessing these events will learn nothing from them and act in successive cycles in identical fashion? Is it not more likely that their action in each cycle will be affected by the lessons they have learnt from its predecessors, even though, as always happens, different people learn different lessons from the same events? Once we admit that people learn from experience, the cycle cannot be reproduced time after time. These considerations suggest that it may be better to give up the doubtful quest for a model of *the* business cycle and to regard phenomena such as cyclical fluctuations in output and prices simply as phenomena of history in the explanation of which changes in human knowledge will naturally play a part, with the events of each successive cycle requiring different, although often enough similar, explanations."[14]

While in and of itself this does not yet prove Lachmann wrong, it is a first step in the direction of a rigorous refutation that the position taken by Lachmann involves nothing less than an all-out social relativism—indeed: nihilism—that cannot but immediately strike one as entirely counter-intuitive. The relativistic consequences of historicism are hinted at clearly in the just quoted passage from Mises, while they may appear somewhat obscured by Lachmann in restricting his remarks to but one theory, the theory of the trade cycle (incidentally without bothering to explain, even if only briefly, what the theory actually states). However, there can be no doubt whatsoever that the trade cycle theory is cited by Lachmann as an *example* and that he actually believes his argument to be equally applicable to all other economic theorems. In the same way and for the same reason that there can be no such thing as *the* theory of the trade cycle, according to Lachmann, there also can be no such thing as *the* theory of exchange, *the* theory of prices, *the* theory of money, *the* theory of interest, *the* theory of wages, *the* theory of socialism, *the* theory of taxation, *the* theory of wage and price controls, or *the* theory of interventionism. What holds for the phenomenon of cyclical fluctuations supposedly also holds for all other phenomena: that they must be

regarded as phenomena of history in the explanation of which changes in human knowledge will naturally play a part, with each successive exchange, price, use of money, interest, wage, socialism, tax, wage and price control, and government intervention requiring different, although often enough similar, explanations. But can we really believe *this*? Can we really believe, as Lachmann does, that we cannot say anything "applying equally to future and past" exchanges, prices, monies, or taxes? Can we really believe that, due to the possibility of learning, it may no longer be true in the future that every voluntary exchange will—*ex ante*—be beneficial to both exchangers, and that every coercive exchange such as a tax will benefit one (the taxman) at the expense of the other (the taxed)? Can we really believe that each successive socialist experiment requires a different explanation, and that it is impossible to say anything applicable to *each and every* form of socialism, so that as long as there exists no private ownership of the means of production, and hence no factor prices, economic calculation (cost-accounting) will be impossible and permanent misallocation (waste) will have to result? Can we really believe that, *as long as socialism is not actually abolished*, this proposition may no longer hold true, because agents can learn from experience and may no longer act in an identical fashion? Can we really believe that if a central bank were to double the paper money supply overnight, this would not, now and forever, lead to a drop in the purchasing power of money as well as a systematic income redistribution in favor of the central bank and the early receivers of the newly-created money at the expense of those receiving it later or not at all? Can we really believe that if the minimum wage were fixed today at one million dollars per hour and if this decree were strictly enforced and no increase in the money supply were to take place, this measure might not lead to mass unemployment and a breakdown of the division of labor because people can learn from experience? To be sure, *Lachmann* believes all of this, and it is easy to understand why some other people—taxmen, socialists, central bankers, and minimum wage legislators—would like us to believe as he does. But it is difficult to imagine how anyone but Lachmann—including even those who would personally benefit from us believing that the future effects of various policies can never be known in advance—can actually consider any of this seriously.

As already indicated in section II above, the fundamental logical error involved in Lachmann's reasoning consists in the

fact that it does not follow from the proposition that human actors face an uncertain future that everything regarding our future must be considered uncertain.[15] Nor does it follow from the fact that humans can learn, and hence their actions may change in the course of time, that everything concerning the future of human actions may possibly change in the course of time. Quite to the contrary. To draw these conclusions, as Lachmann does, is self-contradictory for evidently Lachmann claims to know for certain the unknowability of future knowledge and, by logical extension, of actions. Yet then he does know something about future knowledge and action. He must assume to know something about knowledge and action as such. Likewise, in claiming to know that humans are capable of learning and altering their actions in accordance with what they may learn, Lachmann must admit knowing something about man as such.

He must assume to know not only that man may change his future behavior, but also that these changes are the result of a process of *learning*; that is, that they are the result of man being able to distinguish between success and failure, between confirmation and falsification, and draw *conclusions* dependent upon such categorically distinct experiences; and hence, that all possible changes in the behavior of man, unpredictable as their specific content may be, follow a predictable pattern—a uniform and constant logic of human action and learning. To use a perfect analogy, while it is true that I am unable to predict *everything* that I will say or write in the future, this does not imply that I cannot predict *anything* about my future speaking and writing. I can predict, and indeed I can predict with perfect certainty, and regardless of whether I will speak or write in English or German, that, as long as I will speak or write at all, in any language whatsoever, all of my speaking and writing will have a constant and invariable logical (propositional) structure: that I must use identifying expressions, such as proper names, and predicators to assert or deny some specific property of the identified or named object, for instance.[16] In the same way it holds that even though I cannot predict what goals I may pursue in the future, what means I will deem appropriate to reach these goals, and what other conceivable courses of action I will choose to reject in order to do what I will actually do (my opportunity cost), I can still predict that as long as I act at all, there will be goals, means, choices, and costs; that is, I can predict the general, logical structure of each and every one of my actions,

whether past, present or future. And this is precisely what economic theory or, as Mises has termed it, *praxeology*, is all about: providing knowledge regarding actions as such and knowledge about the structure which any future knowledge and learning must have by virtue of the fact that it invariably must be the knowledge and learning of actors.

To be sure, the knowledge of the invariant logical structure of acting and learning is acquired knowledge, too, as is all human knowledge. Man is not endowed with it. However, once learned, the knowledge conveyed by praxeology as well as that conveyed by propositional logic can be recognized as necessarily true—*a priori* valid—knowledge, such that no future learning from experience could possibly falsify it. While all of my knowledge regarding the external world is, and forever will be tainted by uncertainty (it is not inconceivable that the law of gravitation may no longer hold in the future or that the sun will not rise tomorrow), my knowledge concerning the structure of my future action and learning is and forever will be non-hypothetically true: it is inconceivable that, as long as I am alive, I will not act and reach or not reach my goal and revise or not revise my knowledge depending on the outcome of my actions. Learning is the learning from success and failure, and there can be no learning of the fact that there is no success or failure. Thus, writes Mises, "man as he exists on this planet in the present period of cosmic history may one day disappear. But as long as there are beings of the species Homo sapiens there will be human action of the categorical kind praxeology deals with. In this restricted sense praxeology provides exact knowledge of future conditions. . . . The predictions of praxeology are, within their range of applicability, absolutely certain."[17]

How is it possible, then, especially in light of the fact that Lachmann was familiar with Mises and his writings, that he could have committed an elementary logical blunder such as not to recognize that it does not follow from the fact that we are capable of learning that *everything* about the future of human actions is unknowable? How could he not recognize that only those aspects of our actions which may actually be affected by learning can be considered unpredictable, while those aspects that are a necessary part of any action and learning and thus cannot be altered by future learning—the underlying logical structure of action and learning itself—cannot? The answer to this riddle lies in the fact that although he considered himself a staunch opponent of the positivist philosophy, Lachmann still fell

prey to one of its fundamental misconceptions. Like Friedrich A. Hayek, his second teacher, Lachmann, whether wittingly or not, accepted the view of Hayek's friend and protégé Karl R. Popper that all scientific knowledge must be such that, in principle, it is falsifiable by experience, and that all knowledge that is not falsifiable is not genuine knowledge at all but represents merely empirically empty tautologies, i.e., arbitrary definitions (formalisms). It is thus that Lachmann can write in response to the challenge posed to his thesis of an unknowable future by Mises and his idea of a logic of action that "precisely by virtue of the logical necessity inherent in it, it is impotent to engender empirical generalizations. Its truth is purely abstract and formal truth. The means and ends it connects are abstract entities. In the real world the concrete means used and ends sought are ever-changing as knowledge changes and what seemed worthwhile yesterday no longer seems so today. We appeal in vain to the logic of means and ends to provide us with support for empirical generalizations."[18]

But surely, as popular as this view of regarding all non-hypothetically true propositions—such as the laws of propositional logic, for instance—as empirically-empty formalisms has become in the wake of the rise of the positivist philosophy, it is completely fallacious.[19] In referring to highly-abstract entities such as objects and properties, rather than concrete ones such as my cactus and its red blossoms, I am still speaking about *real* phenomena. The term "tree" is more abstract than the term "pine tree," but the former has no less an empirical content than the latter. In the same vein, in saying something about ends, means, exchange, money, or interest—rather than about my desire to please my wife with flowers, a trade of two oranges against three apples, US dollars, or my exchange of two present socks for four socks three months hence—I am still stating something about real phenomena with an empirical content. Notes Mises, "if one accepts the terminology of logical positivism and especially also that of Popper, a theory or hypothesis is 'unscientific' if *in principle* it cannot be refuted by experience. Consequently, all *a priori* theories, including mathematics and praxeology, are 'unscientific.' This is merely a verbal quibble. No serious man wastes his time in discussing such a terminological question. Praxeology and economics will retain their paramount significance for human life and action however people may classify and describe them."[20]

In light of Lachmann's multiple logical errors, one can now

turn back to our rhetorical questions raised in response to his claim of the impossibility of any and all economic theory and prediction. The reason it appeared absurd that one should be unable to predict anything regarding each and every voluntary exchange, tax, socialism, money supply increase, and minimum wage law, is that while man may learn many things and alter his behavior in many ways, he is unable to experience and learn anything that is at variance with the laws of logic and the nature of man as an actor. I may not be able to predict that I will engage in voluntary exchanges, when, what it is that will be exchanged, or the exchange ratio at which the goods or services in question will be traded, etc., because all of this may indeed be affected by my and others' knowledge and change as this knowledge changes. But I can predict with perfect certitude that *if* a voluntary exchange takes place, regardless of where, when, what, and at what exchange ratio, both exchange partners must have had opposite preference orderings and must have expected to benefit from the exchange. No possible learning can ever change *this*. Likewise, I may not be able to predict that or when a socialist experiment will be undertaken or discontinued. Nor will I ever be able to predict such an experiment's many specific features. All of this may be affected by learning. But regardless of whatever people may learn and how their learning may shape the peculiar shape of socialism, I can still predict with absolute certainty that as long as one is in fact dealing with *socialism*, any and all economic calculation will be impossible and permanent misallocations of production factors must result because *this* consequence is already logically implied in what socialism *is*. Similarly, I may not be able to forecast that a money will actually come into existence, and it is certainly possible that mankind may one day revert back to barter. Nor can I predict with certainty what specific *kind* of money will be employed in the future. But I can predict with perfect certitude that if there is any money in use at all, an increase in its supply must lead to a reduction in its purchasing power below what it otherwise would have been. This follows simply from the definition of money as a *medium of exchange*. Lastly, Lachmann also errs regarding the example of the Austrian theory of the trade cycle. He claims that due to the fact that businessmen can learn—they may hear of or read about Mises's theory—they may possibly alter their future behavior in such a way that the effects predicted by the theory will no longer ensue.[21] But such a claim simply involves a misunderstanding of what the theory actually states. True

enough, people can learn from Mises, and this may actually prevent business cycles from occurring at all, just as people may learn from Mises never to engage in a socialist experiment in the first place. However, this is entirely beside the point, for the theory states that *if* a bank creates additional paper-money credit, above and beyond the credit made available by the public's voluntary savings, and *if* this additional credit is in fact placed into the hands of borrowers and the interest rate is thus lowered below what it otherwise would have been, i.e., the natural rate of interest, then, and only then, will there be first a boom—over-investment—and consequently a bust—the systematic liquidation of some of the investments as malinvestment. Whatever businessmen may learn after a credit expansion has actually taken place cannot possibly affect this predicted outcome in the slightest, because an intertemporal discoordination is already logically implied in the stated premises. And if the if-clause is not fulfilled, then the theory of the trade cycle is not refuted, of course. It simply does not apply. [22]

VIII

Having rejected Lachmann's first contention of the impossibility of economic theory applicable to past and future alike, and having argued the case of Knight's and in particular Mises's instead, not only of the possibility of such theory but, even more strongly, of *a priori* theory and *apodictic* (non-hypothetical) prediction, in this final section Lachmann's second contention—the "kaleidic" nature of the social world and the haphazardous character of entrepreneurial prediction—will have to be examined.

Even if the existence of a logic of action—praxeology—is admitted, as it must be, it does not follow that the knowledge provided by it can render our future certain. Praxeology allows us to predict with certainty *some* future events and aspects of the world of human actions, but its range of applicability is strictly limited. There are many events and aspects, and indeed far more of far greater practical significance, about which praxeology has nothing to say. As Mises explains, "there is, but for Robinson Crusoe before he met his man Friday, no action that could be planned or executed without paying full attention to what the actor's fellow men will do. Action implies understanding other men's reactions."[23] "The task with which acting man, that is,

everybody, is faced in all relations with his fellows does not refer to the past; it refers to the future. To know the future reactions of other people is the first task of acting man. . . . It is obvious that this knowledge which provides a man with the ability to anticipate to some degree other people's future attitudes is not *a priori* knowledge. The *a priori* discipline of human action, praxeology, does not deal with the actual content of value judgments; it deals only with the fact that men value and then act according to their valuations. What we know about the actual content of judgments of value can be derived only from experience."[24] Quite apart from whatever praxeology, technology, and insurance can possibly teach us about the future, then, Mises (as well as Knight) would agree with Lachmann that there remains as one of mankind's most pressing problems the need to predict our fellow men's concrete value judgments, the specific means they will choose to bring their valued ends about, and their evaluations once the results of their actions are in. And as has already been explained, they would also agree with Lachmann that because humans are capable of learning and their learning may affect their values, choices of means, and evaluations of outcomes, the positivist-falsificationist prescriptions of how to deal with this problem are logically inappropriate and impotent. But what else can we do? Or can nothing be done to deal with this aspect of uncertainty?

While it may appear that Lachmann's answer to these questions is similar to Mises's—both refer throughout their writings to the same group of philosophers of the *Geisteswissenschaften* and the social sciences, most notably Max Weber and Alfred Schuetz, and both mention the method of understanding (*Verstehen*)—this impression is mistaken (although due to Lachmann's generally less-than-clear writing and a considerable amount of hedging on his part, this issue is admittedly somewhat difficult to decide).[25] For whereas Mises's answer to the above questions is an unambiguous yes, there exists a method of dealing with the ineradicable uncertainty of future human choices, and even though this method is not, and never can be, perfect, by not availing ourselves of it we would rob ourselves of the very intellectual tool of successful action and encounter more frequent disappointments than otherwise would be the case. Lachmann seems to hold precisely this: that regardless of what we do, our successes or failures in predicting our fellow men's future actions are purely random.

As for Mises's position, it is essential to recognize that—and why—he rejects the view that the future of human actions may be considered random or haphazard. To entertain such a view can mean one of two things. It can mean that we know literally nothing. But this is clearly false, for we do know something: we know that the future events in question are human actions and will display the structure inherent in each and every action, and hence, that while our knowledge may be deficient, we are still in a position to say more than simply *ignoramus*.[26] Or it can mean that with regard to the problem of future human choices, we know everything about the behavior of the whole class of events, but we do not know anything about any singular choice except that it is an element of the entire class of human choices. The view that human actions may be regarded as instances of "class probability" has already been rejected above. We do not, and never will, know everything about the whole class of human actions. But from this it does not follow that we will have to confess complete ignorance regarding singular human choices (apart from the known fact that they are all choices). In fact, we do know something (more) about each singular event: we know that each singular event is the result of *individual* actors acting based on *individual* knowledge subject to changes by *individual* learning, such that each event as it unfolds in human history, past and future, must be conceived of as a *unique, and non-repeatable* event (with each event being in a class by itself); and we also know that in order to grasp the past or anticipate the future actions of our fellow men, we will have to pay attention and try to understand their individual knowledge, their individual values and personal know-how. It is thus that Mises characterizes the epistemological task faced by man in his dealings with his fellows as one of "case probability." "Case probability (or the specific understanding of the sciences of human action) . . . means: We know, with regard to a particular event, some of the factors which determine its outcome; but there are other determining factors about which we know nothing."[27] Categorically different as this situation of case probability is from that of class probability, it is hardly a situation in which the future is random or haphazard. Indeed, in some respect we are in a *better* (not worse) epistemological position in the field of human history, past and future, than we are in the field of natural events, of technology and insurance. For in the latter field we are categorically precluded from the possibility of understanding. Each singular event must be treated

as a member of a class of *homogeneous*, except for their class membership *indistinguishable* singular events. In contrast, in the field of past and future human history, we are capable of distinguishing between every singular event (each event can be treated as *heterogeneous*); and to improve our grasp of the past, and our anticipations of the future actions of our fellows, we know and are capable of learning something about the *individual* causes—the *personal* knowledge—uniquely affecting the outcome of each and every *singular* human event (with each event deserving of its own special attention).

While neither random nor haphazard, then, the task of anticipating our fellows' actions based on an understanding of their individuality is not without its inescapable difficulties and imperfections, for every understanding of an individual is always an understanding of his *past* values and knowledge. However, as Mises was quoted above, our first task in life is to know the *future* reactions of other people. "Knowledge of their past value judgments and actions, although indispensable, is only a means to this end."[28] Thus, in all of our attempts of anticipating the future, in addition to an understanding of the past actions of a given individual, we must also necessarily make a judgment regarding the relative stability or instability of the various parts of his system of values and knowledge as displayed in the past; that is, we must form an opinion about his *personality* or *character*. As Mises explains, we must "assume that, by and large, the future conduct of people will, other things being equal, not deviate without special reason from their past conduct, because we assume that what determined their past conduct will also determine their future conduct. However different we may know ourselves to be from other people, we try to guess how they will react to changes in their environment. Out of what we know about a man's past behavior, we construct a scheme about what we call his character. We assume that this character will not change if no special reasons interfere, and, going a step farther, we even try to foretell how definite changes in conditions will affect his reactions."[29] Likewise, if we are concerned about the future behavior of groups of individuals (rather than only a single one), we cannot but classify individuals according to the similarity or dissimilarity of their character or personality; that is, we cannot but form ideas of group characters—ideal types—and sort individuals according to their membership in such types. "If an ideal type refers to people," explains Mises, "it implies that in some respect these men are valuing and acting in a uniform or

similar way. When it refers to institutions, it implies that these institutions are products of uniform or similar ways of valuing and acting or that they influence valuing and acting in a uniform or similar way."[30]

Our anticipations, based on an understanding of the past, and the construction of character and ideal types and the classification of individuals and groups into such types, are necessarily hypothetical, or rather, tentative predictions. In ascribing a certain character to an actor, we attempt to reduce the uncertainty surrounding his future behavior. We form a tentative judgment concerning more or less stable parts of his personality and predict that the future changes in his behavior, whatever they may be, will be changes in line with his character, i.e., changes which follow a general—predictable—pattern. Our prediction may turn out to be successful or not. We may have misclassified the actor(s). Or, contrary to our judgment, the actor(s) may change their very character; and indeed, over the course of time some character types may die out and new ones may emerge, requiring the development of a different and changing system of classification. Or our character constructs may turn out too abstract or too specific; that is, even though they may yield correct predictions, we may find, in retrospect, that what they predict is of lesser importance than anticipated. The prediction may turn out to say too little of much importance, or too much of little importance, requiring further typological revisions. Moreover, whether we evaluate our predictions as successful or not, the meaning of success and failure is necessarily ambiguous. In the natural sciences, success means that so far your hypothesis has not been falsified; apply it again; and failure means that your hypothesis as it stands is wrong; change it. In our dealings with our fellow men, the implications are not, and never can be, as clear-cut. Maybe our prediction was wrong because some people, as can happen sometimes, acted out of character—in this case we would want to use our hypothesis again even though it had been apparently falsified. Or maybe our prediction was successful, but the individual in question has meanwhile undergone a change in his character—in this case we would not want to use our hypothesis again even though it had just been seemingly confirmed. Or maybe the actor in question knew our prediction and deliberately acted so as to confirm or falsify our hypothesis, in which case we might or might not want to change our future prediction. Every success and every failure, then, bears only inconclusive results and necessitates another

tentative judgment, a new and updated understanding of the actors concerned and a renewed assessment of their characters in light of their most recent actions, and so on. Thus, in contrast to the situation in the natural sciences, where success and failure have an unambiguous meaning, where we are allowed to conclude that what was false in the past will also be so in the future and what worked once will likely work again, and where we may thus successively acquire a growing stock of knowledge, in dealing with the problem of anticipating our fellow men's actions, we can never rest on our past laurels but must always start again fresh and judge the applicability of our past knowledge anew, we can never possess a stock of knowledge that we may blindly rely upon in the future.

Nothing in this—Mises's—view regarding the nature of human history, past and future, is likely to strike anyone as new or revolutionary. Indeed, if it were not for the fact of the very different positivistic view of the matter, it would appear almost trivial and a self-evident truism. As Mises notes, "the methods of scientific inquiry [in the social sciences] are categorically not different from the procedures applied by everybody in his daily mundane comportment. They are merely more refined and as far as possible purified of inconsistencies and contradictions. Understanding is not a method of procedure peculiar only to historians. It is practiced by infants as soon as they outgrow the merely vegetative stage of their first days and weeks. There is no conscious response of man to any stimuli that is not direct by understanding."[31] It is not entirely surprising, then, that Lachmann, too, while his methodological considerations (in distinct contrast to Mises's) are largely unsystematic and marred by an abundance of metaphorical expression and a lack of analytical rigor, should at times appear to be in essential agreement with this commonsensical view as embraced by Mises. Lachmann, too, makes frequent reference to understanding, ideal types, and institutions.[32] Yet despite such apparent similarities, Mises and Lachmann reach completely different conclusions as regards the nature of human—entrepreneurial—uncertainty. Whereas for Mises the result of the method of understanding is moderate uncertainty, for Lachmann it is radical uncertainty. How is this to be explained?

In putting the best possible—because it is the most consistent—face on Lachmann, the disagreement between his and Mises's position may be said to boil down to one regarding a contingent—empirical—fact. There is agreement on the method

to be employed; there is disagreement only on how successful this method actually is—remarkably so and most of the time, as Mises would contend, or insignificantly and only occasionally so, as would Lachmann. Instead of disagreeing on principle, on methodology, they only disagree on a matter of fact: whether the social world is, in fact, kaleidic or not. But what of the facts, then? Although the empirical question of whether we inhabit a kaleidic world or not may appear to be of rather minor importance, given the fact that we must deal with it in any case and we have nothing but understanding available to us to do so, and although questions of this nature may easily degenerate into idle semantic quibbles such as whether a glass of water is half empty or half full, empirical questions—disagreements on matters of fact—are accessible to empirical research and can, in principle, be decided upon based on the observation of the facts. In the bright light of empirical facts, however, Lachmann's theory of radical uncertainty fares no better than in the pale light of logic.

So as to generate a radically-uncertain world of kaleidic change, Lachmann must assume, as a matter of empirical fact, that individual actors do not possess any such thing as a character. Understanding, as has been explained, is always understanding of past actions. In order to be able to successfully predict future actions based on an understanding of past actions, it is necessary that one assume that the past and the future are somehow related—not in the sense that the past would determine the future, but rather in the sense that the past values and know-how of an individual (which determined his past actions) shape and constrain his future values and know-how (which determine his future actions). Indeed, if this were not assumed to be the case and an individual's past values and actions were viewed as completely unrelated to his future values and actions, the study of history would be entirely useless. We only study an individual's past because we believe that this knowledge is valuable in helping us anticipate something regarding his future conduct. Without this belief, the study of history must be regarded as a sheer waste of time. In Mises's view, the link connecting an individual's past with his future and the empirical reason for our concern for the study of history is the existence of individual characters and personalities. It is the existence of a person's character, changing though it may be over the course of time, that assures the continuity of change: patterned social change instead of kaleidic flux. Accordingly,

only if individual actors were assumed to be completely-disjointed personalities, such that my actions tomorrow were always entirely unrelated and unaffected by my actions today or yesterday, could Lachmann's scenario of radical uncertainty ever become reality. While this would indeed be a nightmare if it ever existed, it can safely be said that it has no resemblance whatsoever either to us or to the world we inhabit. Indeed, it is difficult to imagine how a world of disjointed personalities could be reconciled even with human *biology*. Solely on account of our physical bodily nature—which is a contingent fact, but as long as we are alive a relatively stable contingency—we cannot possibly be quite like Lachmann thinks we are, or else we would quickly die out.

As a matter of fact, actors, from the earliest stages of infancy on, display a personal character, they possess a personal identity and conceive of their past and future as forming a whole: their personal life history. We do not start building a house today and then, tomorrow, without any special reason, do something entirely unrelated. Rather, our past actions influence, circumscribe, and constrain our future actions. We do not always begin from scratch, but most of the time we continue what was already begun and planned as a part of a lengthy sequence of actions. And even if we abandon one such integrated plan, we typically adopt another one. Otherwise, if there were no such continuity in our actions, it would be impossible to explain one of the most striking features of human life—the existence and continued employment of a stock of capital goods. To produce a capital good is to begin something stretching into the future, and to employ an existing capital good is to continue something begun in the past. If the future were indeed unrelated to the past, it should be expected that capital goods, insofar as they come into existence at all, will just as quickly be abandoned in the future as they may have been adopted in the past. However, while there exist some ruins of abandoned capital goods, most of yesterday's capital goods are still employed today and tomorrow —which is empirical proof of the past's continuing influence on the future. As the author of a book on capital, Lachmann of all people should have been able to recognize this, and this alone should have given him reason enough to discard his thesis of kaleidic change and radical uncertainty.

Moreover, equally difficult for Lachmann to explain would be another fundamental feature of human history—the existence of enduring differences among various individuals in their ability

to forecast the future; that is, not only the fact that I may be better able to predict the actions of A, B, and C, while you may be better able to predict those of D, E, and F, but also the fact that you and I, confronted with one and the same group of individuals G, H, and J, may display lastingly-different forecasting abilities. From Mises's view these facts pose no problem. Different individuals do not, and cannot possibly know (understand) everyone's past equally well. They know different individuals differently well, and accordingly, their forecasting ability should be expected to be different dependent on whose actions need to be predicted. Likewise, assuming that different individuals are concerned with forecasting the actions of the same individual or group of individuals, it should be expected that there will be systematically—and hence enduringly—different success rates among these forecasters. For in Mises's view, every prediction requires not only an understanding of the past but also a tentative judgment, influenced but not determined by the knowledge of the past, as to the underlying character structure of the individual actors concerned. As an essentially cognitive task involving different and complex intellectual operations, nothing should be less surprising than the fact that different individuals, with strikingly-different talents in all other areas of intellectual endeavor, will also perform differently when it comes to predicting their fellow men. However, if an individual's past and future were indeed unrelated, as Lachmann believes is the case, then everyone should be expected to predict everyone else's behavior equally well (or badly). A person with an understanding of an individual's past actions should not be able to predict his future actions any more successfully than someone else not so acquainted with the individual in question. Because the past is unconnected to the future, not knowing it cannot make a difference in our forecasting abilities. And since without our knowledge of past actions there is nothing left to go on to form a character judgment, we are all equally ignorant and without a rudder; hence, there also should be no lasting difference in our rate of success or failure. Successes and failures should be expected to be randomly distributed among actors and personal fortunes to dissipate as quickly as they are found.

It is almost needless to say that none of this fits historical reality. Based on my long understanding of my wife, for instance, I can anticipate her actions and reactions in almost all foreseeable circumstances; and vice versa, she can predict me

almost to perfection. There are few if any surprises, and probably no one else could predict us better than we can predict each other. Likewise, I can predict, with great precision and better than almost everybody else, the behavior of my children, while they have (still) considerably more difficulty understanding me and my character. Similarly, I can anticipate better than almost anybody else the actions and reactions of many of my family and friends under a great variety of circumstances, and they, knowing me, can successfully predict many or even most of my reactions. There is nothing radical or kaleidic about the uncertainty involved. As well, I know quite a bit about the history of men and women, Germans, Austrians, Turks, Americans, Italians, Mexicans, Protestants, Catholics, Jews, Blacks, Asians, university professors, politicians, businessmen, private and public employees, and so on, and in many respects I can predict the behavior of the members of these groups very successfully, and certainly more successfully than the average person. Moreover, as far as predictions about the behavior of one and the same (group of) individual(s) by different predictors are concerned, even if all predictors have equal access to the record of past events and can base their prediction on an understanding of this past, they are most definitely not equally successful in their predictions. Most importantly, in the narrower field of capitalist-entrepreneurship, where forecasters must estimate their present and current production costs and form a judgment regarding future consumer demand in order to successfully complete an anticipated exchange of present money against future money, and where there exists a set of objective criteria for success—profit and loss, continued operation and bankruptcy, and growth, stagnation, or decline of capital values—the degree of success among different individuals is strikingly different. While many of those who try fail and drop from the rank of a capitalist-entrepreneur to become involved in less risky and intellectually-demanding tasks, many others succeed to stay in business year after year, and some have succeeded in accumulating great fortunes during their life, and even to bring up heirs capable of preserving or enhancing their fortune beyond their own lifetime. This empirical fact, too, stands in open contradiction to the idea of kaleidic change and rather confirms the great cognitive value of the method of understanding (even more so in light of the fact that the superior predictive capability of the capitalist-entrepreneurs simultaneously reduces the uncertainty facing all of their employees by providing them with

a present income even if they themselves could not have correctly anticipated the future demand for their own line of work).

Certainly all of this—the predictive power of the method of understanding as manifested in the empirical facts of capital formation and maintenance, of successful everyday-life entrepreneurship (forecasting of family, friends, colleagues, and acquaintances), and of enduring business successes—in conjunction with the *apodictic* certitude provided by praxeology and the wide-ranging practical certainty afforded by technology and insurance should be more than sufficient to dispel all talk about radical uncertainty and kaleidic social change as either contradictory and meaningless or patently false.

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[1] Ludwig von Mises, *Theory and History* (Auburn, Ala.: Ludwig von Mises Institute, 1985), p. 203.

[2] Ludwig Lachmann, "From Mises to Shackle: An Essay on Austrian Economics and the Kaleidic *Society*," *Journal of Economic Literature* 14 (1976): 55–59.

[3] See Oskar Morgenstern, "Perfect Foresight and Economic Equilibrium," in *Selected Economic Writings of Oskar Morgenstern*, A. Schotter, ed. (New York: New York University Press, 1976), esp. p. 175; Roger W. Garrison, "Austrian Economics as Middle Ground," in *Method, Process, and Austrian Economics*, Israel Kirzner, ed. (Lexington, Mass.: Lexington Books, 1982); idem, "From Lachmann to Lucas: On Institutions, Expectations, and Equilibrating Tendencies," in *Subjectivism, Intelligibility and Economic Understanding: Essays in Honor of Ludwig M. Lachmann* (New York: New York University Press, 1986).

[4] See Frank Knight, *Risk, Uncertainty, and Profit* (Chicago: University of Chicago Press, 1971), esp. chap. 7; Richard von Mises, *Probability, Statistics, and Truth* (London: George Allen and Unwin, 1957), esp. chaps. 1 and 3; Ludwig von Mises, *Human Action: A Treatise on Economics* (Chicago: Henry Regnery, 1966), esp. chap. 6.

[5] Ibid., p. 109.

[6] See Ludwig Lachmann, *The Market as an Economic*

Process (Oxford: Basil Blackwell, 1986), chap. 2, esp. pp. 27–29; also Gerald P. O'Driscoll, Jr., and Mario J. Rizzo, *The Economics of Time and Ignorance* (Oxford: Basil Blackwell, 1985), chap. 2, esp. pp. 24–26.

[7] See Hans-Hermann Hoppe, *Kritik der kausalwissenschaftlichen Sozialforschung* (Opladen: Westdeutscher Verlag, 1983); idem, *The Economics and Ethics of Private Property* (Boston: Kluwer, 1993), chap. 7.

[8] Likewise, it would be self-contradictory for me to state about my actions performed over the course of time what would have to be assumed if I wanted to consider them instances of insurable events (class probability): that I know nothing about any one of my actions except that they are *my* actions (in the same way as one may legitimately say, for instance, that I know nothing about any singular outcome of a game of roulette except that each one is the outcome of the same roulette). In fact, I do know more about each of them. I know that each action is influenced by my knowledge, and that my knowledge will be changed dependent on the outcome of each action, such that each action will be performed by a *different me* and must be considered a *unique* event (forming an entire class by itself).

[9] On the methodological views of Frank Knight in particular, see his *The Ethics of Competition and Other Essays* (New York: Harper Bros., 1935), and, idem, *On the History and Method of Economics* (Chicago: University of Chicago Press, 1956).

[10] Lachmann, *The Market as an Economic Process*, p. 32.

[11] Ibid., quoted in G.LS. Shackle, *Time in Economics* (Amsterdam: North Holland, 1958), p. 105.

[12] Austrians from Carl Menger onward considered the German historicists as anti-economists and their intellectual foes. The historicists, in particular their leader Gustav Schmoller and his successor Werner Sombart, amply reciprocated this animosity.

[13] Mises, *Theory and History*, pp. 199, 203–4.

[14] Lachmann, *The Market as an Economic Process*, pp. 30–31.

[15] See also Hoppe, *Kritik der kausalwissenschaftlichen Sozialforschung*, chap. 3, esp. p. 47.

[16] See Paul Lorenzen, *Normative Logic and Ethics* (Mannheim: Bibliographisches Institut, 1969), chap. 1. Lorenzen explains (p. 16): "I call a usage a convention if I know of another usage which I could accept instead. . . . However, I do not know of another behavior which could replace the use of elementary

sentences. If I did not accept proper names and predicators, I would not know how to speak at all. . . . Each proper name is a convention,. . . but to use proper names at all is not a convention: it is a unique pattern of linguistic behavior. Therefore, I am going to call it 'logical'. The same is true with predicators. Each predicator is a convention. This is shown by the existence of more than one natural language. But all languages use predicators." See also Wilhelm Kamlah and Paul Lorenzen, *Logische Propaedeutik* (Mannheim: Bibliographisches Institut, 1968), chap. 1.

[17] Ludwig von Mises, *The Ultimate Foundation of Economic Science* (Kansas City: Sheed Andrews and McMeel, 1978), pp. 84–85.

[18] Lachmann, *The Market as an Economic Process*, p. 31; for the similar views of Hayek see his "Economics and Knowledge," in Friedrich A. Hayek, *Individualism and Economic Order* (Chicago: University of Chicago Press, 1948).

[19] See Arthur Pap, *Semantics and Necessary Truth* (New Haven, Conn.: Yale University Press, 1958); Brand Blanshard, *Reason and Analysis* (LaSalle, Ill.: Open Court, 1962); Friedrich Kambartel, *Erfahrung und Struktur* (Frankfurt/M.: Suhrkamp, 1968); Hoppe, *The Economics and Ethics of Private Property*, chap. 6.

[20] Mises, *The Ultimate Foundation of Economic Science*, p. 70. Equally incomprehensible as the charge that praxeology is empirically empty because its propositions are non-falsifiable is the charge brought against Mises and Menger by O'Driscoll and Rizzo (*The Economics of Time and Ignorance*, p. 23), that the belief in the existence of "apodictic praxeological theorems" and "exact economic laws" implies the assumption of some sort of "rigid determinism!" And would one also have to give up the belief in the existence of universal and unchanging laws of logic if one were to adopt O'Driscoll's and Rizzo's indeterministic "dynamic subjectivism"?

[21] Ludwig Lachmann, "The Role of Expectations in Economics as a Social Science," in idem, *Capital, Expectations, and the Market Process* (Kansas City: Sheed Andrews and McMeel, 1977).

[22] See Ludwig von Mises, "'Elastic Expectations' and the Austrian Theory of the Trade Cycle," *Economica* 10 (1943): 251–52; also George Selgin, "Praxeology and Understanding," *Review of Austrian Economics* 2 (1988): 54.

[23] Mises, *The Ultimate Foundation of Economic Science*, p.

49.

[24] Mises, *Theory and History*, p. 311.

[25] For a similar assessment see Selgin, “Praxeology and Understanding.”

[26] See Mises, *Human Action*, p. 107.

[27] Mises, *Human Action*, pp. 107–10. Ibid., p. 59, Mises notes, that “historical events have one common feature: they are human action. History comprehends them as human actions; it conceives their meaning by the instrumentality cognition and understands their meaning in looking at their individual and unique features. What counts for history is always the meaning of the men concerned: the meaning that they attach to the state of affairs they want to alter, the meaning they attach to their actions, and the meaning they attach to the effects produced by the actions.”

[28] Mises, *Theory and History*, p. 311.

[29] Mises, *The Ultimate Foundation of Economic Science*, pp. 49–50; and he continues then to say: “Compared with the seemingly absolute certainty provided by some of the natural sciences, these assumptions and all the conclusions derived from them appear as rather shaky; the positivists may ridicule them as unscientific. Yet they are the only available approach to the problems concerned and indispensable for any action to be accomplished in a social environment.”

[30] Mises, *Theory and History*, p. 316.

[31] Mises, *The Ultimate Foundation of Economic Science*, p. 48.

[32] See Lachmann, *The Market as an Economic Process*, pp. 34–42.

The Pareto Rule and Welfare Economics

Jeffrey M. Herbener

> It is [my] contention . . . that the wake for all welfare economics is premature, and that welfare economics can be reconstructed with the aid of the concept of demonstrated preference. This reconstruction, however, will have no resemblance to either of the "old" or "new" edifices that preceded it. In fact . . . our proposed resurrection of the patient may be considered by many as more unfortunate than his demise.[1]

When Murray N. Rothbard published his seminal article, "Toward a Reconstruction of Utility and Welfare Economics," these were bold words indeed, considering the disarray into which welfare economics had fallen by 1956.[2] The Old Welfare economics had crashed to the ground decades before when Lionel Robbins, building on the subjective-value foundation laid by Ludwig von Mises, demonstrated that its underpinning—interpersonal utility comparisons—was an impossibility.[3] Being subjective, utility has no cardinal index and, thus, no common cardinal units could possibly exist for the purpose of comparing the utility of different individuals. Since individual ordinal rankings of utility cannot be compared, the argument advanced by Pigouvian welfare theorists, that redistribution of wealth from the rich to the poor would increase social welfare because of diminishing marginal utility of money, fails. To the chagrin of advocates of Old Welfare redistributionist policies, economists conceded that the subjective nature of utility renders cardinal measurement, a necessary requisite of interpersonal utility comparisons, impossible.[4] Moreover, they admitted that advocates of such policies were not value-free economists but ethicists advancing their own, usually egalitarian, ethical biases.[5]

Paul Samuelson, a major architect of New Welfare economics, characterized the egalitarian desire typical of Old Welfare economists to equalize income as "a fetish or shibboleth,

albeit a useful one, in that the means becomes the end, and the letter of the law takes precedence over the spirit." According to him, egalitarianism fails because "it is easy to show that the rule of equality of income . . . applied to individuals of different tastes . . . is actually inconsistent with any determinate, definite [social welfare] function"; a statement more revealing of the importance he placed on his social-welfare construct than of the genuine deficiencies of egalitarianism.[6] He also rejected Old Welfare economics for making the "essentially unnecessary assumption" that the social welfare function to be maximized was "the sum of the cardinal utilities experienced by each individual."[7]

Yet, Samuelson's cavalier attitude toward the demise of cardinal utility and consequent acceptance of ordinal utility did not result in a simple and quick solution to the problem of explaining the relationship between ordinal utility and the cardinal magnitudes in the social welfare function to be maximized. New Welfare economists struggled in vain for several decades to show how ordinal ranks relate to cardinal numbers and were useful for welfare analysis. One by one, they began to admit defeat and surrendered to the impossibility of interpersonal utility comparisons of ordinally-ranked utility.

Had they not been wedded to their mathematical formulations, perhaps they could have accepted the solution given by Mises. From his development of the concept of ordinal marginal utility in 1912 Mises went on to explain how *ordinal* utility can be the basis for socially-meaningful *cardinal* comparisons of value.[8] Money is a common denominator in which ordinal preferences can be expressed, by exchanges of private property for and against money, resulting in cardinal numbers, namely, money prices, which are in the same units, namely dollars, for all goods and factors traded on the market. The price for the existing stock of each consumer good reflects, but is not and cannot be equal to, the subjective value of its marginal unit, i.e., the unit with the least subjective value. The price for each factor is imputed to it by entrepreneurial demands to rent the factor, according to the objective value of the amount of the consumer good the factor produces at the margin, i.e., its marginal value product. This price will also reflect the subjective opportunity cost factor owners place on the marginal unit of the factor, including renting the factor into other production processes.[9]

As Mises showed, by transforming the ordinal preference ranks of different individuals, which are impossible to compare,

into a quantity of common, cardinal units, the monetary, private property, market system provides the basis for economic calculation. Entrepreneurs use money prices to make calculations of profit and loss, and in so doing compare, in objective value, different factors of production against each other and one set of factors against others in producing each consumer good and each factor or set of factors in producing different consumer goods. That money prices, only possible in a monetary private property market system, provide a common cardinal unit in which different factors can be compared in social value is an essential part of Mises's economic calculation argument.[10] Moreover, entrepreneurial calculations of profit allow for cardinal comparisons of the social value of the consumer good produced (the total revenue generated by consumer purchases) with the social value of factors used (the total cost generated by entrepreneurial purchases). Any time an entrepreneur earns profit, social wealth increases; any time he suffers a loss, social wealth decreases. It is within this general economic framework that Professor Rothbard developed Austrian welfare economics.[11]

By showing that the voluntary exchanges of private property using money transform ordinal ranks into cardinal numbers reflective of those ranks, Mises solved the theoretical problem that welfare theorists, both Old and New, would attempt, within their neoclassical framework, to solve in vain.[12]

Old Welfare theorists, such as Alfred Marshall, approached this problem in a superficially similar, but entirely unsatisfactory, manner. His consumer-surplus approach implicitly assumes that the marginal utility of a good equals a sum of money.[13] Thus, cardinal utility enters by the back door, the common cardinal unit for utility being a dollar. Writing of a consumer purchase, Marshall says, "the economic measure of . . . the *satisfaction* which he gets from its purchase" is "the excess of the price which he would be willing to pay rather than go without the thing, over that which he actually does pay."[14] Defining producer surplus in an analogous way (the excess of the price he receives over that which he would be willing to accept rather than forego the sale) allows one to add the money sums of consumer and producer surpluses, treating the aggregate, total surplus, as a measure of total utility. The total utility from the production and exchange of different goods can then be compared and policy directed toward the maximization of total surplus.

In addition to assuming cardinal utility this analysis makes the illegitimate assumption that the marginal utility of a dollar to everyone is the same since each dollar added into total surplus counts as one. It would seem, however, that if these objectionable features could be expunged, the analysis could be saved.[15]

Such a purification provides the theoretical justification for cost-benefit analysis. There is no need to assume anything about cardinal utility, proponents of this approach argue, if government officials can use the market in the same way that entrepreneurs do—as the basis for calculation of profit. When contemplating a government intervention, they can use existing market prices to project anticipated benefits and costs in sums of money. If the project renders net benefits then intervene, if not, social wealth would be greater without the intervention.

Cost-benefit analysis does not fail as a social-welfare technique for lack of a method for assessing the subject value of individuals in cardinal terms. It circumvents that problem by relying on the same market procedure that entrepreneurs do. Its fundamental error is in equating the *appraisal* that can be performed only by entrepreneurs in economic calculation with the superficially similar "paper" calculations made by government officials. Genuine appraisal of social values requires entrepreneurs to put their own wealth at risk in the process of production and exchange. Without this, there is no connection between existing market prices and the expectations of future prices upon which profit and loss will hinge. Government officials can only "play" market and, thus, cannot make genuine appraisals.[16]

Mises made this point in rebutting economists, in particular those following the approach of Enrico Barone, Oscar Lange, and Abba Lerner, who used the neoclassical apparatus of general equilibrium in attempted refutations of his economic calculation argument against socialism.[17] Barone and Lerner are cited as important forerunners of the New Welfare economics by its major architects, Abram Bergson and Paul Samuelson. Bergson's seminal article is dedicated to presenting "the value judgments required for the derivation of the conditions of maximum economic welfare which have been advanced in the studies of . . . Pareto and Barone, and Mr. Lerner."[18] Samuelson calls Barone's article on optimizing social welfare "masterly," claiming that "it is a tribute to this work that a third of a century after it was written there is no better statement of the problem in the

English language." Of Lerner, Samuelson says, "[He] developed the Paretian conditions which show that the marginal equivalences realized by perfect competition lead to an optimum of production and exchange."[19] Since the New Welfare economics emerged from the debate about economic calculation, it is not surprising to find Mises's arguments demonstrating the impossibility of economic calculation in socialism useful also in rebutting the New Welfare economics; nor is it surprising to find proponents of the New Welfare economics dedicated to demonstrating that the free market fails to maximize social welfare.[20]

It was left to Rothbard to reconstruct welfare economics upon Mises's foundation or, rather, within Misesian general economic theory. The crucial concept in that reconstruction is demonstrated preference, that, as he says, "a man's preferences . . . are deducible from what he has chosen in action."[21] That demonstrated preference is the operative concept in value-free, welfare economics is implied by the subjective nature of value. Because the value a person places on alternative ends is an intensive mental state, another person can say nothing about it unless it is revealed in action.[22] Moreover, modern price theories, both Austrian and neoclassical, presuppose demonstrated preference. In both theories, price is determined by the actions of buying and selling that are prompted by subjective evaluations. The imaginary constructs of consumer surplus (from Old Welfare economics) and general equilibrium (from New Welfare economics) are built from the assumption of demonstrated preference. Thus, when adherents of Old or New Welfare economics discuss improving or maximizing social welfare, they are not referring to more general concepts of social "well-being." To be value-free, this is a necessary restriction on welfare economics. It is no defect of Austrian Welfare economics that it fails to encompass a broader concept of social "well-being." Value-free economic theory cannot do so.[23]

Acceptance of the subjective nature of value required economists to reject cardinal utility in favor of ordinal utility. The inability to make cardinal comparisons of the gain in utility to some with the loss in utility to others from a social interaction, in turn, forced them to "reintroduce Pareto's Unanimity Rule into economics, and establish it as the iron gate where welfare economics must test its credentials," as Rothbard puts it.[24] To increase social welfare, according to the Rule, a social interaction must benefit at least one person while harming

no one. If so, the post-interaction state is called Pareto Superior to the pre-interaction state. Pareto Optimality exists when all Pareto-Superior changes have been exhausted.[25] Forced to accept the Pareto Rule and demonstrated preference, it would seem that economists could make pronouncements about the social welfare of voluntary exchanges, which necessarily demonstrably benefit each participant while doing no demonstrable harm to non-participants, but not involuntary exchanges (such as government intervention), which necessarily benefit some and harm others. Only a social system of unanimous consent can generate the greatest benefit for society; the free market is the "economic" component of such a social system.[26]

Non-socialist advocates of the New Welfare economics, far from being predisposed to provide a welfare justification for the free market, were anxious to demonstrate the welfare superiority of interventionism.[27] Thus, they set themselves to circumventing this stricture of the Pareto Rule. Two approaches were attempted: trivialize the Rule by subsuming it into a general equilibrium framework and transcend the Rule with the compensation principle. The first attempt led to the development of the social welfare function and the concept of market failure, the second to the concept of potential compensation and political rules for defining consent.

Bergson pioneered the social welfare function approach.[28] This technique trivializes the Pareto Rule by making it the criterion of attaining the set of optimal conditions for maximizing the social welfare function. The social welfare function approach uses the Pareto Optimality interpretation of the Pareto Rule, demonstrating that the Rule merely describes the static, end-state condition necessary, but not sufficient, for maximum welfare. As such it provides no barrier at all to advocacy of government intervention to increase social welfare by redistributing income and correcting for market failure.

There are three optimum conditions derived using the Pareto Rule in this way.[29] The Exchange Optimum requires every individual to consume so that the Marginal Rate of Substitution (MRS) for each pair of goods, which is equal to the ratio of the goods' marginal utilities, be equal. If violated, then goods can be exchanged between individuals moving at least one to a higher indifference curve without moving anyone else to a lower indifference curve. The Factor Use Optimum requires each good to be produced so that the Marginal Rate of Technical

Substitution (MRTS) for each pair of factors, which is equal to the ratio of the factors' marginal products, be equal. If not, factors could be rearranged to produce more of at least one good without reducing the production of any other good. The Production Optimum requires each good to be produced so that the Marginal Rate of Transformation (MRT) between each pair of goods be equal to the corresponding MRS. If unequal, production of the high-cost good could be reduced and that of the low-cost good increased; thereby moving at least one person to a higher indifference curve without moving any other to a lower indifference curve.

Achieving the Production Optimum ensures production along society's Production Possibilities Frontier (PPF), where any increase in production of one good necessarily reduces the production of another good. There are an infinite number of production combinations along the PPF. For each point on the PPF, the goods produced can be divided among individuals in an infinite variety of ways, each of which is Pareto optimal, i.e., no one can increase his utility without reducing the utility of someone else. Only one such consumption combination, however, has a MRS in consumption equal to the MRT in production. Thus, each of the infinite number of Pareto optimal production combinations along the PPF renders one Pareto optimal consumption combination. A Utility Possibility Frontier (UPF) can then be constructed showing the utility each individual acquires from each Pareto optimal consumption combination: along the UPF, any change in production or consumption that increases one person's utility must decrease another person's utility. To select the social-welfare maximum combination, a social welfare function having all the properties of an individual's utility function, e.g., smooth, continuous, convex indifference curves, is constructed. The socially-optimal point on the UPF is the one corresponding to the highest social-welfare indifference curve.

It would seem that a social welfare function, so constructed, must of necessity compare the utility of one person with that of another, which is precisely what the stricture laid down by the impossibility of interpersonal comparisons of utility prohibits. If so, the efforts of New Welfare economists to provide a complete, value-free, social welfare theory were in vain. Its proponents struggled mightily to avoid this conclusion. Samuelson made the most notable attempt by formulating a version of New Welfare economics based on his own interpretation of ordinal utility in

which he followed Bergson.[30] But the lack of a cardinal index for utility by which interpersonal utility comparisons could be made, which he treats in a cavalier fashion in criticizing the Old Welfare economics, brought up short his attempts.

Samuelson postulates a social welfare function dependent upon the welfare each individual obtains from the amounts of all goods and services he receives. He then asserts that such a social welfare function is "only ordinally determinable" but can be subject to all mathematical operations (e.g., aggregation of individual utilities and differentiation) by assigning arbitrary cardinal numbers to each ordinal rank.[31]

The construction of Samuelson's social welfare function is illegitimate. To be an ordinal function consisting of ordinal utility ranks of individuals, the social welfare function must make interpersonal comparisons of utility in every case where one person's utility rank increases while another's decreases. Its existence presupposes interpersonal comparisons of utility. This problem is not circumvented by asserting that the social welfare function has a reduced form that depends only on the amount of each good going to each individual. Then the social welfare function must either compare the utility of different individuals for different distributions of income or it must ignore the utility of individuals and impose upon them the preferences of a dictator.[32]

Moreover, Samuelson's construction of the social welfare function on the analogy of the standard treatment of individual utility as an indifference map fails on the crucial point. He is in error when he claims that the problem of interpersonal utility comparisons can be circumvented by a social welfare function that "need only be ordinally defined" and then having done so assign to each social indifference curve an arbitrary cardinal number.[33] The possibility of circumventing the problem of interpersonal utility comparisons in the construction of an individual's utility map by building with ordinal ranks alone and then assigning cardinal numbers to each indifference curve exists only because the items being subjectively evaluated by the individual are goods (the dimensions of the graph are the amounts of the different goods). The individual must be able to compare his own utility for different combinations of goods. But the social welfare function must be able to compare the utility of different individuals (the dimensions of the graph are the utilities of different individuals) in order to construct the social indifference curves. To construct social indifference curves, one

must presuppose cardinal utility and infinitesimal units of cardinal utility.

Additionally, whether individual or social, indifference curves either imply cardinal utility or forbid utility functions. Drawing a set of indifference curves with cardinal numbers assigned to them is mathematically equivalent to having a differentiable utility function. But any function that can be differentiated must be defined cardinally. One cannot differentiate a function of ordinal rankings. Thus, drawing a set of indifference curves without assigning cardinal numbers to them forbids a corresponding utility function. It is precisely the absence of such cardinal numbers that gives indifference curve analysis the appearance of being consistent with ordinal utility. That Samuelson knows this point full well is revealed by his attempt to claim the efficacy of arbitrary assignment of cardinal numbers instead of stating that cardinal numbers are simply not necessary for his theory. It does no good to claim to replace cardinal marginal utility with ordinal marginal rates of substitution if the analytic devise to do so, i.e., the utility function, mathematically implies the equivalence of the marginal rate of substitution of one good for another with the ratio of their marginal utilities. Yet, this is precisely what any utility function, individual or social, does. In the hands of its practitioners, indifference curve analysis is not a means of expunging cardinal utility from economic theory; it is a way of disguising its use.

The comment of Joseph Schumpeter on the measurability of utility, that “there is in fact no compelling necessity of insisting upon measurability so long as we are interested only in a maximum problem: there are means of telling whether or not we are on the top of a hill without measuring the elevation of the place where we stand,” illustrates the fundamental misunderstanding of the problem posed to the social welfare function by ordinal utility.[34] If utility is ordinal, there is no hill; to construct the hill one must assume cardinal utility and a social welfare function that is continuous and differentiable. What would a “hill” of ordinal ranks look like? The reason the assertion works for a real hill is that it is continuous and differentiable; therefore it is possible to assign cardinal numbers, which one could plausibly maintain are arbitrary since there is no absolute unit of altitude, to the various elevations on the hill. While one could construct a “stair-step” from ordinal ranks of an individual from which one could plausibly find a maximum position, i.e., a highest rank, to do so for a social welfare

function presupposes interpersonal utility comparisons.

Samuelson clearly understood that an ordinal social welfare function was useless within his mathematical framework since without cardinal numbers it could not be maximized in the standard calculus manner. Furthermore, he implied that his method of specifying arbitrary cardinal numbers to the social-welfare indifference curves both avoids assuming cardinal utility and renders a useful social welfare function. This claim, however, is patently false. Any set of indifference curves, either for individuals or society, with cardinal numbers arbitrarily assigned to them, implies cardinal utility. As they emanate from the origin of the diagram, the numbers must increase in magnitude to reflect the fact the curves farther from the origin are preferred to those closer to it because, by assumption, more goods are preferred to less. But the very assignment of cardinal numbers means that the differences in ordinal rank between combinations of goods are cardinally measurable. For example, if an individual's indifference curve with 2 units of X and 3 units of Y is assigned the number 12 and his indifference curve with 2 units of X and 4 units of Y has the number 15, the difference in rank is 3. The extra utility of having the fourth unit of Y is 3, i.e., its marginal utility is cardinal.

Thus, despite his thinly-veiled hostility toward "Robbins's dicta concerning the inadmissibility of welfare economics," his solution is a mathematically-dressed up version of the one posed by Robbins himself.[35] Although Robbins denied that cardinal numbers are thereby implied, he did assert that one can assess the differences in ordinal rankings, a condition which is "accepted doctrine" as a requisite for measurement of the preference rank. As Rothbard makes clear, the preference rank can only be revealed in action; "only pure rankings are revealed by acts of choice" while "differences in rank are not so revealed and are therefore . . . irrelevant to economics."[36]

Furthermore, if differences in rank cannot be demonstrated in action, neither can "indifference." Instead, both indifference and intensity of preference are psychological concepts and, thus, using them in utility analysis is impermissible.[37] While this argument is widely accepted for "differences in rank," it is widely rejected for indifference. Yet, if preference can only be demonstrated in action, economic theory can say nothing about either differences in rank or indifference.[38]

Finally, to construct indifference curves one must presuppose infinitesimal units: for individual indifference curves,

units of the goods; for social indifference curves, units of the utility of individuals. Yet, human action cannot be predicated upon infinitesimal differences. Such differences are imperceptible so a person could not establish a preference between the imperceptibly-different options; thus, he could not demonstrate a preference by action on the basis of the imperceptible difference. [39] Demonstrated preference precludes the existence of smooth, continuous utility functions and the use of calculus in utility and welfare economics.

It was not these criticisms, made by Rothbard, that convinced New Welfare economists to surrender their attempts, but the demonstration by Kenneth Arrow that, given reasonable preconditions, it is impossible to construct a consistent social welfare function.[40] This demonstration destroyed the previous work of Tibor Scitovszky in constructing social indifference curves by proving that they intersect, i.e., they have intransitive preferences.[41] In his response, Samuelson failed to grasp the destructive power of Arrow's theorem. Samuelson used the analogy of family welfare to explain how the social welfare function evaluates the utility of different individuals in a consistent way.[42] Assuming that society consists of at least two members, each one has utility dependent on the consumption of his own set of goods which is independent of the consumption of other members. The "ethical worth" of each person's consumption is accounted for by a social welfare function that constrains society to act "as if it were maximizing their [sic] welfare function." The constraint is the distribution of social income across all members which must be distributed by "lump-sum transfers . . . that ensure ending up with equal social marginal utilities."[43]

While these conditions do result in a consistent social welfare function, they still fail to circumvent Arrow's theorem. Arrow did not contend that it was impossible to construct a consistent social welfare function, but that if it was consistent it would violate at least one of his "reasonable" preconditions, as Samuelson's function did. Samuelson's exercise was in vain.[44] Social welfare theory of the New Welfare economics, therefore, lay in ruin by the mid-1950s.[45]

The market-failure approach has had a much longer and more pernicious life. It takes note of the fact that actual market systems never achieve perfectly-competitive, general equilibrium; and thus, they are never Pareto Optimal, let alone at the bliss point of social-welfare maximization. Thus, various

types and degrees of government intervention can be justified as movements toward Pareto Optimality, i.e., increases in social welfare.

Given certain preconditions, a perfectly-competitive market system can be shown to achieve a point on the Utility Possibilities Frontier, i.e., it satisfies all three Pareto Optimality conditions. If consumers maximize utility, they will purchase each pair of goods so that its MRS is equal to its corresponding ratio of prices. Under perfect competition, prices for all goods, and therefore price ratios for all pairs of goods, are the same for all consumers. By equating his MRS to the common price ratio, each consumer (unwittingly) equates his MRS to that of every other consumer, satisfying the Pareto Optimal condition for consumption. If producers maximize profit, they will hire factors so that the MRTS between any two equals the corresponding price ratio between them. Perfect competition ensures that all producers face the same prices for all factors; thus, their maximizing behavior leads to the satisfaction of the Pareto Optimal condition for factor use. The Pareto Optimal production condition requires the MRT for each good to equal its MRS. Since, for each pair of goods the MRT is identical to the ratio of its marginal costs, perfect competition satisfies this condition because profit maximization occurs only when the price of each good equals its marginal cost.

Within this framework, the theory of market failure proceeds from the observation that real world market systems neither satisfy the preconditions for nor exhibit the outcomes of perfect competition. Consumers and producers pursue non-economic goals instead of maximizing utility and profit Prices diverge from marginal costs because of “monopoly” elements. Real markets do not always equate the prices paid by different consumers for the same good. Costs borne by private producers may not include all those born by society at large because of externalities.[46]

This approach turns the Pareto Rule on its head; instead of being a barrier to intervention, it guarantees high levels of government activity. Real world markets cannot be perfectly competitive; a perfectly-competitive situation assumes conditions that cannot be achieved in the real world.[47] Demand curves in the real world always slope downward to the right, ensuring, within the neoclassical framework, that prices will always exceed their corresponding marginal costs. Thus, government can be kept busy intervening with anti-trust laws to make actual markets more like perfectly-competitive ones, regulation to force

actual firms to act like perfectly-competitive ones, and taxes and subsidies to equate actual private costs to social costs.

These problems of market failure are chimeras—illusions created by the artificial construct of perfectly-competitive, general equilibrium.[48] They pose no difficulty for Rothbard's welfare theory because it is not constructed within such a framework. As he puts it, "the theorem of maximum social utility applies not to any type of 'perfect' or 'pure' competition, or even to 'competition' as against 'monopoly.' It applies simply to any voluntary exchange."[49] Moreover, general equilibrium is inconsistent with the principle of demonstrated preference upon which both the New Welfare and Austrian Welfare economics are built. Preference can only be demonstrated in actions taken by participants in actual exchanges given actual situations. Pareto Optimality or Efficiency as developed within the general-equilibrium framework fails to describe actual situations or allow for actual exchanges; in fact, action itself is inconsistent with general equilibrium. New Welfare economics utterly fails to provide a useful criterion of even the necessary condition of social welfare maximization.

Moreover, the use of a general-equilibrium method to define Pareto Optimality makes this technique unable to provide a framework for price *determination*, but the conditions of Pareto Optimality are defined in terms of perfectly-competitive, general-equilibrium prices. Demand and supply curves are actions based upon, and demonstrations of, people's ordinal preferences, *given the existing conditions under which the actions are taken*. Since the conditions of actions in general equilibrium cannot exist in the real world, the prices of general equilibrium cannot exist either. Yet, the definition of efficiency, e.g., price must equal marginal cost (or the conditions of Pareto Optimality, e.g., price ratios must equal marginal cost ratios) are defined by these prices, i.e., in terms of the conditions of general equilibrium.

The existence of general equilibrium prices is inconsistent with the principle of demonstrated preference upon which any theory of price determination rests. It is impossible for a person to be in a situation of acting as described by general equilibrium; therefore, he cannot demonstrate a preference under such conditions, since preferences can only be demonstrated in actual situations and postulated about in conceptually-possible situations. Even if one accepts the existence of such prices, the market failures developed in this framework are fictitious since they compare two general-equilibrium states, both impossible to

attain in the real world. When asserting market failure, New Welfare economists are not comparing an idealized, perfectly-competitive, general-equilibrium market system with an actual market system, they are comparing an idealized, perfectly-competitive, general-equilibrium market system with an idealized, imperfectly-competitive, general-equilibrium market system. That the latter is inferior to the former is wholly irrelevant to any actual market system and, thus, to genuine welfare theory.

In contrast, Austrian price theory has as its goal the explanation of actual market prices. It demonstrates that the actual price of the existing stock of each good is determined solely by the subjective value placed on it. Each individual acts in accordance with his preferences: buying to add to his stock, selling to diminish his stock, or holding to retain his stock. The price that exists at any moment in time results from these actions. These actual prices are unrelated to those of general equilibrium; but being real prices determined by real actions, they are based on demonstrated preferences and, thus, are relevant for welfare theory. This is the foundation of Mises's demonstration of profit and loss as the correct objective test of social-wealth changes discussed above. Moreover, the voluntary exchanges by which actual prices are determined in real markets involve a set of Pareto-Superior moves as each participant demonstrates his preference by his action. Since nothing can be or need be said about the end-state of these interactions, Pareto Optimality, as an end-state condition, is irrelevant to Austrian welfare theory.

Rothbard recognized that by rejecting the neoclassical penchant for analyzing the real world solely with the imaginary construct of general equilibrium, one must dispense with the use of the Pareto-Optimal version of the Pareto Rule as well, since it is a "static," end-state principle. To reconstruct welfare economics, it must be made consistent with Austrian general economic theories of real markets. Doing so requires using the Pareto-Superior version of the Pareto Rule, which is a "dynamic," step-by-step principle. As he says, "Since we cannot discover people's utilities over time . . . the free market *at any time* will maximize social utility . . . . Thus, in Period 1 the free market will maximize social utility. Then, suppose some producers voluntarily form a cartel in an industry. This cartel makes its exchanges in Period 2. Social utility is again maximized, for again no one's exchanges are being altered by coercion."[50]

Proponents of the New Welfare economics attempted a superficially similar but fundamentally flawed approach to integrating the Pareto-Superior criterion into the general-equilibrium framework. The Kaldor—Hicks compensation principle attempts to circumvent the static, end-state character of the Bergson—Samuelson framework by employing a Pareto-Superior version of the Pareto Rule to judge movements toward the satisfaction of the optimal conditions. Yet it debases the Rule in a more damaging way than Bergson and Samuelson did by formulating it in potential terms, i.e., a change is Pareto Superior if those who gain benefit enough so that they could compensate those who lose in such a way that no one is worse off.

Nicholas Kaldor demonstrates the ability of the compensation principle to transcend the stricture of the Pareto Rule using the example of repeal of the corn laws in nineteenth-century England. Because this policy would increase the real income of society, though reducing that of landlords, the economist has made his case for it, he claims, "since in all such cases it is *possible* to make everybody better off than before, or at any rate to make some people better off without making anybody worse off."[51] As Rothbard points out, this argument suffers from a grave defect.[52] By transcending the Pareto Rule (some can be worse off after a change and yet the change increases social welfare), it contradicts the very foundation of all welfare theory: social welfare must be based on the welfare of individuals that make up society, which can only be demonstrated in action. Unless the compensation is actually made, it is impossible to tell from the fact that real income has risen whether or not the reduction in *utility* of those who lose can be more than offset by *monetary* compensation. Thus, potential compensation does not eliminate interpersonal utility comparisons; it merely camouflages them in money terms. The Pareto Rule cannot be transcended with a social-welfare calculation that strictly adheres to individual, ordinal utility.

Moreover, the compensation principle, being an extension of the Bergson—Samuelson approach, suffers from the defects of general equilibrium. It is impossible to pronounce on the economic consequences, including welfare, of changing from one actual social state to another with the apparatus of general equilibrium, since neither state can be compared to general equilibrium. One cannot tell which actual social state is closer to general equilibrium. One must first develop an economic theory of actual markets that can establish criteria for comparing actual

social states; only then is it possible to build a useful welfare theory.[53] One must first develop an economic theory of actual markets; from it, a theory of the determination of actual prices can be built, and criteria for comparing the social welfare of actual social states can be developed.

Finally, the Kaldor—Hicks argument fails as a value-free justification for government intervention, even if one accepts the dubious concept of potential compensation, since it misconstrues the nature of free-market exchange and government intervention and, by so doing, establishes the status quo as the appropriate benchmark for judging social change.[54] In fact, Kaldor invented the compensation principle in response to an error of Robbins, who said, "the statement that social wealth was increased [by free trade] itself involved an arbitrary element—that the proposition should run, if equal capacity for satisfaction on the part of the economic subjects be assumed, then social wealth can be said to be increased. Objective analysis of the effects of the repeal of duties only showed that consumers gained and landlords lost. That such an arbitrary element was involved was plain."[55]

The error in this assertion is defining consumer gain and landlord loss in terms of the previous state of affairs, i.e., the status quo, which is no longer a social alternative. Each time the duty was levied on exporters of grain, they had their utility demonstrably reduced. Given this state of affairs, they entered into contracts to purchase grain, demonstrably benefiting themselves and the farmers who sold to them. They, and other retailers, entered into contracts with consumers, demonstrably benefiting all participants. Landlords, and other factor owners, entered into mutually-beneficial rental contracts with farmers. In each of these contracts, the prices agreed to by both parties were mutually beneficial. When the duty was no longer levied on exporters, then the demonstrable harm no longer existed. This new state of affairs led to new contracts among the various groups at new prices, lower for grain and land. Acceptance of these new contracts, however, demonstrated the preferences of all parties; they all gain. Only from a fundamental misconception of the nature of voluntary exchange or demonstrated preference could one conclude that landlords lose when they agree to the terms of the new contract. Each party to a voluntary exchange demonstrates that he prefers its terms to whatever alternative actually exists at that point in time. On demonstrated-preference grounds, one cannot tell if the landlords lose in comparing the

terms of the new contract with those of the old contract, because no one in the market is now offering the old terms. The old higher price is not a social option and, thus, landlords cannot demonstrate a preference for it once the new terms are offered. The genuine alternatives are only those being offered given the new social situation, the old (status quo) situation is now irrelevant. Comparisons of the ordinal rank an individual places on an alternative at one point in time with the ordinal rank he places on a different alternative at a different point in time are impossible. Since an individual cannot demonstrate a preference between them, such judgments involve illegitimate inter-temporal comparisons of utility.[56]

The logic of Kaldor's compensation-principle solution to Robbins's error was worked out fully by J.R. Hicks.[57] After replicating the Pareto-Optimality conditions of the New Welfare economics, discussed above in somewhat different form, he applies the analysis "as a means of criticizing or testing the efficiency of production by private enterprise," by asserting that, "under private enterprise, any ordinary change in economic policy involves a change in the price-system, and any change in prices benefits those on one side of the market, and damages those on the other. Thus no simple economic reform can be a permitted reorganization in our sense, because it always inflicts a loss of some sort upon some people." In other words, Hicks asserts that market activity itself, and not just the removal of government intervention, creates losses for some participants whenever such activity has effects on prices, i.e., as long as the economy is not in a general equilibrium.[58] While this would seem to prevent welfare analysis of almost all market activity, Hicks claims that "this does not prevent us from applying our [social welfare] criteria to the case of private enterprise, because we can always suppose that special measures are taken through the public revenue to compensate those people who are damaged."[59]

By transcending the Pareto Rule and following the compensation principle to its logical end, Hicks winds up in absurdity. Voluntary exchange, instead of being mutually beneficial, "inflicts a loss of some sort upon some people." Yet, social-welfare judgments of "private enterprise" are still possible because "we can suppose" that losers in exchange are compensated "through the public revenue." But what kind of private-enterprise system is it that requires, for a demonstration of welfare enhancement, an all-encompassing government

program of income distribution? If Hicks means that the compensation is only potential, and must not actually take place, then why is it necessary to suppose "special measures are taken" to compensate losers? And if he means that the compensation is only potential but the gain to winners exceeds the loss to losers because enough additional income is generated by the change to compensate all losers so that everyone is better off, then he is confusing income with utility and making assertions about preferences apart from people's actions.

Instead of correcting the deficiencies of the New Welfare economics, the compensation principle adds to them. Every actual market activity, not identical to the status quo, is *a priori* suspect on welfare grounds, since one can identify "losers" according to the compensation-principle. Thus, a vast new field is available for government intervention, especially in the form of income distribution. Ignoring these new possibilities, Hicks examines the situations of market failure within his framework, finding them to be the same as those of the social welfare function approach. He then concludes in the same way that economists of the social welfare function variety do: economic theory can delineate the conditions for Pareto Optimality, what Hicks calls efficiency, but not interpersonal utility comparisons, what Hicks calls distributive justice.[60]

For both the social welfare function and the compensation approaches, if income distribution could be specified by economic theory, then they would have a complete welfare theory. In fact, the social welfare function technique could do this *ex ante*. The social welfare function is necessary to decide among points on the Utility Possibilities Frontier because the framework does not specify an initial income distribution among individuals. If it did start with such a specification, or specified initial factor ownership among individuals, then market exchange would lead to a single point on the UPF, which by construction would maximize social welfare.

Since Austrian Welfare economics is based on Pareto Superiority (a step-by-step analysis), not Pareto Optimality (an end-state analysis), the importance of a starting point is all the more manifest. The solution provided by Professor Rothbard rests on two value-free propositions: demonstrated preference and self-ownership. That each individual owns, i.e., controls the use of his mind and body is self-evidently true.[61] As Mises showed, the entire corpus of economic theory is axiomatic-deductive: the logical implications of the primordial fact that

individuals engage in human action.[62] Yet, action itself, being done only by individuals, presupposes self-ownership. One can no more refute the proposition that individuals are self-owners than the proposition that individuals act, since any attempt presupposes the proposition in either case.

Moreover, the fact of self-ownership is not accepted by just Austrian economists but is a presupposition of the neoclassical school as well. Both schools build price theory from the foundation of individuals who buy and sell in accordance with their own subjective evaluations. In fact, the central problem of welfare economics—interpersonal utility comparisons—disappears as soon as the presupposition of self-ownership is dropped. Without individuals, each making their own evaluations and decisions and actions based upon them, welfare theory could directly postulate a "collective welfare" separate from the individuals that make up society. This fallacy is one even New Welfare economists refused to embrace. Instead, they failed to accept the logical implication of the presupposition of methodological individualism for welfare economics while accepting its implications for price theory.

For welfare economics, the implication is that self-ownership is the proper starting point of analysis. New Welfare economists are led into a contradiction, perhaps by their desire to employ general equilibrium (and thus, mathematical techniques) when they accept self-ownership in price theory, i.e., allowing individual utility and buying and selling to determine prices, and then deny its implications in claiming that income distribution is indeterminate within the nexus of these market exchanges. They recognize the necessity of private ownership of property as a prerequisite of voluntary exchange and market prices, but fail to recognize either that self-ownership of labor is also a prerequisite of these phenomena or the logical connections between self-ownership of labor and individual ownership of other property.

Professor Rothbard avoids these contradictions by accepting self-ownership as the appropriate starting point of welfare economics and then proceeding step-by-step according to the Pareto-Superior version of the Pareto Rule.[63] Each person owns his labor. When anyone employs his labor in an act of acquisition over some item previously unowned, he owns, i.e., controls in action the use of, the item. His action demonstrates a gain in utility, while the failure of others to acquire the item demonstrates their preference not to acquire it. Thus, each such act of acquisition is Pareto Superior. When the owners of means

acquired in this way make a voluntary exchange, such an act is Pareto Superior—demonstrably benefiting the participants while doing no demonstrable harm to non-participants. The totality of these acts of acquisition and voluntary exchange, whether of factors or consumer goods, constitute the free market; since each of them is Pareto Superior, the free market creates the greatest satisfaction of individuals' preferences at every point in time.[64]

This conclusion about the free market can be further clarified by examining charges recently made against Professor Rothbard's welfare economics. Roy Cordato claims that one "fundamental problem" with it is that it "ignores the fact that preferences are expressed sequentially through time, as part of a general set of goal-oriented activities. The actor in Rothbard's framework is operating in a static world where actions are undertaken in isolation from one another."[65] But the conclusion about the free market's welfare properties is not "static" in this sense; to the contrary, it is genuinely "dynamic." It properly accounts for social welfare at each successive point in time *when a social interaction takes place*. Thereby, it properly accounts for any possible changes in circumstances during a sequence of actions that influence a person's "goal-oriented activities," including his own preferences and the preferences of others. For private actions, involving no demonstrable preferences of non-participants, which may be part of the sequence of actions a person undertakes to achieve a goal, welfare theory, *per se*, does not apply.

To clarify this point, consider the following illustration. Suppose a man agrees to a one-year contract in which he trades a particular labor skill for some particular compensation, and furthermore, that he does so as part of a sequence of actions which he expects to culminate in the acquisition of a capital gain, for which he has a preference, from trading shares of stock of a particular company. He benefits, as does his employer, at the time he makes the labor contract. At that point in time, the free market has created the greatest satisfaction of individuals' preferences, *given the actual situation they find themselves in at that time*.[66] Having accepted the contract, his situation of acting is changed, including perhaps his own preferences; thus, some actions he might contemplate taking will now have a different opportunity cost to him. Over time he accumulates sufficient savings from his wages to buy shares of the firm's stock. We know, by the principle of demonstrated preference, that both he and the seller benefit at the time of the exchange. At that point

in time, the free market has created the greatest satisfaction of individuals' preferences, *given the actual situation they find themselves in at that time*. But suppose after his purchase of the stock its price falls, so that he regrets having bought it. Or suppose that he comes to regret having agreed to his labor contract before it expires. These circumstances do not represent a failure of the free market to create the greatest satisfaction of individual preferences. To the contrary, if he continues to possess the stock, instead of selling it to someone in the market, he demonstrates his preference for retaining ownership *compared to the actual social opportunities now available to him*; if he fulfills the duration of his contract, he demonstrates his preference for the terms of the contract *compared to the actual social opportunities now available to him*. If he sells the stock and suffers a capital loss he demonstrates his preference for the money received at the time of the sale, or if he resigns his job, he demonstrates his preference for his perceived alternative. In each case, participating in the free market increases his utility. The (assumed) subjective loss he experiences from the capital loss, when viewing the sequence of events in its totality, is not caused by his participation in the free market, but by his lack of entrepreneurial insight into the future state of affairs before he started the series of actions. It is properly assigned to the period in the sequence of his actions when he was acting privately, by retaining ownership of the stock as its share price fell, and not to those moments when he participated in the free market. That such losses occur in no measure diminishes the conclusion that the free market renders the greatest satisfaction of individual preferences *compared to any other institutional arrangement for social interactions*.[67]

The entrepreneurial success or failure of each individual's actions when viewed in sequence is parallel to the success or failure of the specialized entrepreneur in the market. After formulating his expectations of the future profitability of various courses of action, he contracts with factor owners to rent their factor services, and thereby, incurs monetary costs. In each of these contracts, both he and each factor owner gain. Since he owns the goods produced by combining the factors, he earns the monetary profit or suffers the monetary loss when they are sold. In each of the sales, both he and each consumer gain. If these sales generate revenues in excess of his costs, he earns profit; if his revenues fail to cover his costs, he suffers loss. His profit or loss is independent of the fact that he acquires, without

exception, subjective benefit in each of his voluntary exchanges. The extent of profit or loss is determined by his entrepreneurial insight, that is, how accurately he anticipated the outcome of the sequence of actions. The welfare enhancing character of the free market is not impugned by entrepreneurial losses, whether they are monetary or subjective.

Far from having an "emphasis on static, unconnected action," Professor Rothbard's welfare economics correctly delineates between actions (including social interactions) which demonstrably increase the utility of each participant at the time they are undertaken given the actual situation in which they are taken, and entrepreneurial insights about the future consequences of the actions. The former can never reduce utility; the latter are the source of either profit or loss from the sequence of actions over time.[68] This delineation also defuses another of Cordato's criticisms: that "by focusing strictly on demonstrated preferences and *ex ante* evaluations, he rules out all consideration of costs and therefore the possibility of utility loss."[69] But acceptance of the principle of demonstrated preference logically requires restrictions on statements about utility to those referring to points in time when action is taken. To make an *ex post* statement about *utility* requires an impermissible inter-temporal utility comparison.[70] Moreover, far from ignoring costs, Professor Rothbard's welfare economics correctly accounts for opportunity costs. Opportunity cost exists only for each action and only at the time the action is taken; it is the subjective value of the most-valuable alternative to the action actually undertaken. Cordato's claim, that "by definition, costs cannot be demonstrated," is irrelevant for welfare theory; what is demonstrated in action is that the subjective value of the action taken exceeds the subjective value of the best alternative.[71] Neither the subjective benefit nor the subjective cost of an action is demonstrated when an action is taken; preference is demonstrated, and demonstrated preference is a sufficient foundation for welfare economics.

Value-free welfare economics must be based on the principle of demonstrated preference, acceptance of which precludes inter-temporal utility comparisons, since an individual cannot demonstrate a preference in action between two different situations at two different points in time. Welfare economics can say nothing about *ex post* utility; instead, it must be content to describe utility *ex ante* or at the time of action when the individual actually demonstrates a preference between two

relevant alternatives. As Professor Rothbard has correctly pointed out, however, general economic theory shows a greater tendency for correspondence between ex *ante* anticipations of gains from a sequence of actions and *ex post* realization of such gains in a free market *vis-à-vis* an interventionist system.[72] Specialized entrepreneurs on the market appeal to the test of profit and loss to determine whether or not they have arranged production to best satisfy consumer preferences while consumers themselves appeal to trial and error to determine which of the various consumer goods best satisfies their ends. By distorting economic calculation and interfering with consumer choice, interventionism retards this tendency to match *ex ante* and *ex post* utility.

Instead of being a weakness of Professor Rothbard's welfare theory, the fact that "by definition, though, people always expect to benefit, relative to the alternatives, from every action that is undertaken," as Cordato claims, is true, and therefore, a great strength of it. Cordato misconstrues how Austrian Welfare economics judges social interactions, namely with the Pareto-Superior version of the Pareto Rule, when he concludes that, "this is true under any institutional arrangement," including "action taken at the point of a gun."[73] The relevant question for social welfare in such a situation is whether or not this interaction *itself* increases the utility of at least one person without decreasing that of another *at the time it occurs*. Since the victim of violence would not have voluntarily undertaken the interaction in the absence of aggression, one can *infer* that such an involuntary social interaction, unlike a voluntary one, forces him to accept a less-preferable alternative. It is by this inference, and not his action under duress (i.e., after the aggression has begun), that the Pareto-Inferior nature of involuntary interactions is seen.[74] There is no inconsistency between the Pareto-Inferior nature of involuntary interactions at the moment aggression begins and the achievement by the victim of his highest preference by adjusting his actions during the time under duress.

Professor Rothbard's welfare economics is constructed from Misesian general economics. It is the only welfare economics that is completely consistent with the principles deduced from the axiom of action. Each person owns his labor, i.e., his mind and body. Employing his labor, man acts by evaluating the possible ends he can attempt to attain by the combination of means he owns. The scarcity of means requires him to choose from among

the possible ends; to be purposeful his choice must be according to his evaluations. When he acts, one can infer that he has established a preference between the course of action taken and the course of action not taken; he chooses to do what he prefers more and sets aside what he prefers less. From the axiom of action, one can deduce only an ordinal ranking of preference; quantitative comparisons of subjective value are impossible for lack of a cardinal index and a common unit of subjective value. Only his concrete action can demonstrate his preferences.

Welfare economics examines the consequences of social interactions in terms of the demonstrated preferences or utility of individuals. Social interactions can be either voluntary or involuntary; the former is done without, and the latter with, the use or threat of invasive violence. The subjective nature of value implies the impossibility of comparing either the utility of different individuals from a social interaction or the utility of any individual at different points in time. The impossibility of interpersonal comparisons of utility restricts welfare economics to conclusions about interactions that benefit some without harming any one. Such an interaction is called Pareto Superior. The impossibility of inter-temporal comparisons of utility restricts welfare economics to conclusions about interactions at the time they occur. Any voluntary interaction demonstrably benefits each participant at the time it occurs, while doing no demonstrable harm to any non-participant. An interaction that benefits at least one person while doing no harm to anyone else increases social utility, i.e., either improves or leaves unchanged the preference rank obtained by every individual. Any involuntary interaction demonstrably benefits some participants at the time it occurs, while demonstrably harming others. An interaction that harms at least one person is called Pareto Inferior, and cannot increase social utility.

Every social interaction presupposes ownership of the means used by each participant and every demonstration of preference, upon which rests the welfare criterion of changes in social utility, and presupposes self-ownership of labor. Welfare economics is incomplete without an analysis of the acquisition of the items traded in voluntary exchanges, and is inconsistent if such an analysis contradicts the principle of self-ownership of labor.

Welfare economics begins with each person owning his labor. With his labor, he acquires unowned items existing in nature. Each such act of acquisition demonstrably benefits the person engaged in the act at the time it occurs, while

demonstrably harming no one. Their abstention from acquisition or transformation of the item demonstrates the preferences of non-participants for devoting their means to other ends. Each such act of acquisition is Pareto Superior. Once the item is owned by the first-user, others no longer have the option of being its first-user; thus, their preferences at that point in time have no bearing on the Pareto-Superior nature of the acquisition by the first-user. For a person to obtain ownership of the item from the first-user in a Pareto-Superior interaction, the person must induce the owner to either voluntarily exchange it or voluntarily give it away.

With his labor and homesteaded means, each action a person takes benefits him at the time of the action. This is true for private actions, such as reading a book in one's home, and for social interactions, such as contracting to sell one's labor or to buy consumer goods. Non-participants in these actions demonstrate their preferences for allowing these actions and interactions by devoting their means to other actions and interactions. Each private action and voluntary social interaction is Pareto Superior. Once the actions or interactions take place, non-participants no longer have the alternative of acting toward them in a participatory way. Whatever actions non-participants take after the action or interaction of others are irrelevant to the Pareto-Superior nature of the action or interaction. In fact, non-participants must now establish a preference for the new alternatives actually available to them. When they act upon these new preferences in light of the new circumstances, they benefit.

The same principle applies to each person's preferences inter-temporally. When someone buys a consumer good, he benefits at that time. If after the purchase, he reevaluates the good, placing it lower on his preference rank, then he will act according to his new preferences. His new action will again benefit him. As economists, we cannot compare his utility inter-temporally, since he cannot demonstrate a preference between these two states of affairs. It is not the new action or interaction that reduces his utility; rather, it is his failure to correctly anticipate future conditions, including his own preferences, i.e., it is his failure as an entrepreneur. This assessment of the sequence of actions of the individual is the analogue to the assessment of the sequence of interactions directed by the specialized entrepreneurs in social production and exchange.

The free market consists of all acts of acquisition and interactions that are voluntary, and is brought about by a legal

system that defends these property tides and contracts. The free market consists entirely of Pareto-Superior movements. Thus, it achieves the highest degree of utility possible for each person, given the conditions of action and interaction, including the different preferences of different people. It is in this sense that the free market can be said to maximize social utility; it is not the utility that is social but the actions—the free market gives the greatest possible utility to every individual in their interactions.[75]

Interventionism consists of the mixture of voluntary and involuntary acts of acquisition and interactions. Each involuntary act of acquisition or interaction is Pareto Inferior. Thus, interventionism fails to achieve a degree of all individual utility as great as that of the free market.

Professor Rothbard correctly concludes that the free market achieves the greatest social utility possible of any economic system. His achievement is no less than a rigorous proof of the long-standing conviction among economists that the free market, without qualification, maximizes social welfare.

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[1] Murray N. Rothbard, "Toward a Reconstruction of Utility and Welfare Economics," in Mary Sennholz, ed., *On Freedom and Free Enterprise: Essays in Honor of Ludwig von Mises* (Princeton, N.J.: D. Van Nostrand, 1956), p. 249.

[2] The importance of this article as a contribution to the Austrian literature can be seen in the assessment of Israel M. Kirzner, who said, "[I] can personally attest to the excitement engendered by the lucid manner in which this paper deployed Austrian insights to illuminate fundamental theoretical issues (concerning which contemporary economics was floundering), and by the characteristic erudition which Rothbard poured into that single essay." See Kirzner, "Welfare Economics: A Modern Austrian Perspective," in *Man, Economy, and Liberty: Essays in Honor of Murray N. Rothbard*, Walter Block and Llewellyn H. Rockwell, eds. (Auburn, Ala.: Ludwig von Mises Institute, 1988), p. 77.

[3] For the original contribution of Ludwig von Mises on the ordinal nature of utility, see Mises, *Theory of Money and Credit*

(Indianapolis: Liberty Classics, [1912] 1980), pp. 51ff. For the blow delivered by Lionel Robbins to Old Welfare economics, see Robbins, An *Essay on the Nature and Significance of Economic Science*, 3rd ed. (New York: New York University Press, [1932] 1984), pp. 137–41.

[4] In addition to cardinal units for each individual's utility, interpersonal utility comparisons require a *common* cardinal unit in which the utility units of different individuals could be expressed. Those familiar with Ludwig von Mises's argument that socialism is impossible because of the inability of central planners to make economic calculations will recognize a parallel between that argument and the impossibility of interpersonal utility comparisons. The impossibility of economic calculation in socialism rests on the absence of a common, cardinal unit in which different types of factors of production can be reckoned. See Mises, *Human Action: A Treatise on Economics*, 3rd rev. ed. (Chicago: Henry Regnery, [1949] 1966), pp. 206–9.

[5] Pigouvian Welfare Theory is developed in Arthur C. Pigou, *The Economics of Welfare* (London: Macmillan, 1920). For a discussion of the necessity of having ethical judgments taken from disciplines outside economic theory as the foundation of Old Welfare economics, see Lionel Robbins, "Interpersonal Comparisons of Utility: A Comment," *Economic Journal* 48 (December 1938): 635–41.

[6] Paul Samuelson, *Foundations of Economic Analysis* (Cambridge, Mass.: Harvard University Press, 1947), p. 225. He added analytic rigor to this line of argument in idem, "Social Indifference Curves," *Quarterly Journal of Economics* 70, no. 1 (February 1956): 8–14. He had less sympathy with "the bourgeois penchant for laissez-faire," which he claimed was "the only case on record where a substantial number of individuals have made idols of partial derivatives, i.e., imputed marginal productivities." That Samuelson rejected "the belief that the individual should rightfully receive his imputed productivities," because "[it] is not consistent with a [social welfare] function having properties" which he deems important reflects more on his own ethical biases than on a genuine ethical assessment of laissez faire. See, Samuelson, *Foundations*, p. 225. Oscar Lange, a New Welfare economist sympathetic to the egalitarian leanings of the Old Welfare school, demonstrated that the Pigouvian analysis can be recast in the New Welfare framework. See idem, "The Foundations of Welfare Economics," *Econometrica* 10 (1942): 221–23.

[7] Samuelson, *Foundations*, p. 226.

[8] On ordinal marginal utility see Mises, *Theory of Money and Credit*, pp. 59–61. His discussion of the relationship between ordinal utility and cardinal value is in *Economic Calculation in the Socialist Commonwealth* (Auburn, Ala.: Ludwig von Mises Institute, [1920] 1990), pp. 11–13, 23, and 48–49.

[9] On the pricing process, see Mises, *Human Action*, pp. 327–50.

[10] Ibid., pp. 206–9.

[11] The connection between Misesian general economics and Rothbardian welfare economics will be explored below.

[12] This is an excellent illustration of the inferiority of a mathematical method vis-à-vis a verbal method in economic reasoning. Mathematics is inherently incapable of solving this basic economic problem which is easily handled using literary means. On mathematics and pricing, see Mises, *Human Action*, pp. 350–57, 701–3, 710–15.

[13] Marshall's discussion of consumer surplus is in *Principles of Economics* (New York: Macmillan, [1890] 1948), pp. 92–101, 124–37, and 831–32.

[14] Ibid., p. 124. Emphasis added.

[15] J.R. Hicks attempted to expunge cardinal utility from the surplus approach in a manner consistent with the New Welfare economics. See Hicks, "The Rehabilitation of Consumers' Surplus," *Review of Economic Studies* 8, no. 2 (1941): 108–16; idem, "Consumers' Surplus and Index Numbers," *Review of Economic Studies* 9, no. 2 (1942): 126–37; idem, "The Four Consumers' Surpluses," *Review of Economic Studies* 11, no. 1 (1943): 31–41; idem, and "The Generalized Theory of Consumers' Surplus," *Review of Economic Studies* 13, no. 2 (1945–46): 68–74.

[16] On this point, see Mises, *Human Action*, pp. 705–10. Moreover, both bureaucratic cost-benefit calculations and entrepreneurial appraisals require formulating expectations of the future. Bureaucratic expectations are categorically different than entrepreneurial ones because government officials do not place their own wealth at risk on the accuracy of their forecasts. And for those government projects for which there will be no future market, bureaucrats have less basis than entrepreneurs for formulating any type of expectations. On the differences between bureaucratic and entrepreneurial management, see Ludwig von Mises, *Bureaucracy* (Cedar Falls, Iowa.: Center for Futures Education, [1944] 1983).

[17] What came to be called the Lange-Lerner rule states that central planners can maximize social welfare by solving the perfectly-competitive, general-equilibrium equations to obtain "shadow" prices of all inputs and outputs, then make this list of prices known to the relevant consumers and producers, and finally instruct them to behave as if they were maximizing utility and profit in a perfectly-competitive economy. Enrico Barone, "The Ministry of Production in the Collectivist State," in *Collectivist Economic Planning*, F.A. Hayek, ed. (Clifton, N.J.: Augustus M. Kelley, [1935] 1975), pp. 245–90; this article was first published in Italian in 1908. Oscar Lange, "Mr. Lerner's Note on Socialist Economics," *Review of Economic Studies* 4 (October 1936): 143–44; and idem, "The Foundations of Welfare Economics," *Econometrica* (1942): 215–28. Abba Lerner, "Economic Theory and Socialist Economy," *Review of Economic Studies* 2 (October 1934): 51–61; and idem, "Theory and Practice in Socialist Economies," *Review of Economic Studies* 6, no. 1 (1938): 71–75. In refuting this approach, Mises specifically identifies Barone as failing to "penetrate to the core of the problem," *Human Action*, p. 701.

[18] Abram (Burk) Bergson, "A Reformulation of Certain Aspects of Welfare Economics," *Quarterly Journal of Economics* 70, no. 2 (February 1938): 310.

[19] Samuelson, *Foundations*, pp. 214–17.

[20] What is surprising is Samuelson's befuddlement that "Barone satisfies himself with deriving optimal *production* conditions" without bothering to extend his analysis to consumption conditions. He claims that this "oversight resulted from his wish to avoid the use of indifference curves and utility." Samuelson, *Foundations*, p. 217, emphasis in original. The absence of consumption optima, however, is no oversight at all for managing a *collectivist* regime of production. As Mises argued, socialism solves the problem of determining what consumer goods to produce by having the central planners use their own preferences. Mises, "Economic Calculation," pp. 23–24. Since Barone developed his framework of welfare theory to explain how to manage production in a collectivist state, it is not at all surprising that consumption optima were absent from his set of optimum conditions.

[21] Rothbard, "Toward a Reconstruction," p. 225. On the early development of the concept of demonstrated preference by Mises, see *Theory of Money and Credit*, p. 60; and idem, *Human Action*, pp. 94–96.

[22] To remain value-free economists, i.e., to abstain from injecting into economic theory ethical propositions, adherents of cardinal utility among the Old and New Welfare economists had to agree with the ordinalists that actions are necessary to demonstrate utility, e.g., consumer surplus is a monetary calculation of utility using a demand curve, which is the result of the actions of buyers in the market. Those cardinal-utility advocates who did not develop value-free theories were not bound by the demonstrated-preference principle, e.g., the Pigouvian prescription, driven by egalitarian ethical notions, of increasing social welfare by equalizing monetary incomes is founded on the undemonstrable principle that each person has a capacity for utility satisfaction identical to that of every other person.

[23] On this limitation of welfare theory, see David Gordon, "Toward a Deconstruction of Utility and Welfare Economics," *Review of Austrian Economics* 6, no. 2 (1993): 103–4. Gordon makes this point in response to a criticism of Professor Rothbard's welfare theory made by Roy Cordato, who argues that, "demonstrated preference . . . does not allow for any consideration of harm that is not demonstrated," which rules out "the welfare effects of envy, trauma, etc." Thus, voluntary exchanges "may have negative psychic effects on others," which negates the claim that such activity renders an "unambiguous increase in 'social utility.'" Cordato, *Welfare Economics and Externalities in an Open Ended Universe* (Boston: Kluwer Academic Publishers, 1992), pp. 42–43.

[24] Rothbard, "Toward a Reconstruction," p. 244.

[25] Vilfredo Pareto, *Manual of Political Economy* (New York: Augustus M. Kelley, [1927] 1971).

[26] Given the strictures of value-free economics, consent can only be inferred from voluntarily-undertaken actions by which preferences are demonstrated.

[27] The socialist proponents of the technique used by New Welfare economists were anxious to show by mathematical proof that central planning could operate a division of labor as efficiently as the market by solving the system of perfectly-competitive, general-equilibrium equations. For Mises's criticism of their attempts, see *Human Action*, pp. 701–3.

[28] Bergson, "A Reformulation of Certain Aspects of Welfare Economics": 310–34.

[29] Bergson's list of optimum conditions differs from the one presented here. For our purposes, the differences between

this list, as developed and synthesized by later authors, and Bergson's is inconsequential. For a presentation of how the perfectly-competitive market achieves the optimum conditions, see Francis Bator, "The Simple Analytics of Welfare Maximization," *American Economic Review* 47, no. 1 (March 1957): 22–59.

[30] Samuelson calls Bergson "the first who understands the contributions of all previous contributors, and . . . the first to develop explicitly the notion of an *ordinal* social welfare function in terms of which all the various schools of thought can be interpreted" and claims that "there is only one all-inclusive welfare economics, which reaches its most complete formulation in the writings of Bergson." Samuelson, *Foundations*, pp. 219 and 249. Emphasis added.

[31] Ibid., pp. 228–29.

[32] The latter possibility is examined in Samuelson, "Social Indifference Curves": 14–18.

[33] Samuelson, *Foundations*, p. 221.

[34] Joseph Schumpeter, *History of Economic Analysis* (New York: Oxford University Press, 1954), p. 1062.

[35] Samuelson, *Foundations*, p. 249. Contra Samuelson, Robbins did not think that the impossibility of interpersonal comparisons of ordinal utility ranks prohibited welfare economics. He argued that it prohibited the Old Welfare economics based on the assumption of cardinal utility. This was the major theme offered in Robbins, "Interpersonal Comparisons of Utility."

[36] Robbins's discussion is in Robbins, "Robertson on Utility and Scope," *Economica* (May 1953): 104. Professor Rothbard's comment is in idem, "Toward a Reconstruction," p. 235.

[37] It makes utility and welfare theory branches of psychology instead of strictly praxeological disciplines.

[38] On indifference, see Rothbard, "Toward a Reconstruction," pp. 236–38.

[39] Ibid.

[40] Kenneth Arrow, *Social Choice and Individual Values*, 2nd ed. (New York: John Wiley and Sons, [1951] 1963).

[41] Tibor Scitovszky, "A Note on Welfare Propositions in Economics," *Review of Economic Studies* 9 (1941): 77–88.

[42] Samuelson's thinly-veiled contempt for Arrow's work is illustrated in his comment about how "conventional theory" can be saved on the analogy of "family consensus." He says, "Perhaps

Arrow will produce a proof that such a consensus is impossible." Samuelson, "Social Indifference Curves": 9.

[43] Ibid.: 10 and 13. The condition of "equal social marginal utilities" cannot be met by a social welfare function of ordinal ranks; only if cardinal numbers are attached to the social indifference curves is such a condition definable, let alone achievable. But assigning cardinal numbers implies cardinal utility whose marginal social values can be made equal. Ordinal ranks cannot make the "social (ordinal) utility of every person's last dollar equal," as Samuelson claims. Ibid.: 15.

[44] Arrow, *Social Choice*, pp. 96–103.

[45] On the concession of defeat, see Abram Bergson, "On the Concept of Social Welfare," *Quarterly Journal of Economics* (May 1954): 249; and Paul Samuelson, "Welfare Economics: Comment," in *A* Survey *of Contemporary Economics*, B.F. Haley ed., vol. 2 (Homewood, Ill.: Irwin, 1952), p. 37.

[46] On the theory of market failure, see Francis Bator, "The Anatomy of Market Failure," *Quarterly Journal of Economics* 72 (1958): 351–79.

[47] Not the least of these assumptions is perfect information. After listing the standard set of assumptions, F. A. Hayek comments on the meaning of perfect information. "I shall here," he says, "not go into the familiar paradox of the paralyzing effect really perfect knowledge and foresight would have on all action." See Hayek, "The Meaning of Competition," in *Individualism and Economic Order* (Chicago: University of Chicago Press, 1948), p. 95.

[48] F.A. Hayek says, "It is difficult to defend economists against the charge that for some 40 to 50 years they have been discussing competition on assumptions that, *if* they were true of the real world, would make it wholly uninteresting and useless." See Hayek, "Competition as a Discovery Procedure," in *New Studies* in *Philosophy, Politics, Economics and the History of Ideas* (Chicago: University of Chicago Press, 1978), p. 179. Emphasis in original.

[49] Rothbard, "Toward a Reconstruction," p. 255.

[50] Ibid., p. 255.

[51] Nicholas Kaldor, "Welfare Propositions of Economics and Interpersonal Comparisons of Utility," *Economic Journal* 49, no. 195 (1939): 550. Emphasis original.

[52] Rothbard, "Toward a Reconstruction," pp. 246–47.

[53] Some neoclassical economists recognized this defect of the general equilibrium approach in their development of the

theory of second best. They demonstrated that if a market system is not in general equilibrium, then one cannot discern the correct government policy toward a market failure in any one market using the general equilibrium framework. The seminal article on the theory of second best is Kelvin Lancaster and Richard Lipsey, "The General Theory of Second Best," *Review of Economic Studies* 24 (1956): 11–32.

[54] On the compensation principle as a defense of the status quo, see Murray N. Rothbard, *The Ethics of Liberty* (Atlantic Highlands, N.J.: Humanities Press, 1982), pp. 203–5.

[55] Robbins, "Interpersonal Comparisons of Utility": 638. Quoted in Kaldor, "Welfare Propositions": 549–50. Kaldor rightly criticizes Robbins, saying, "It can be demonstrated . . . that in the classical argument for free trade no such arbitrary element is involved at all." Ibid.: 550. It is not on the basis of the compensation principle, however, that such an argument can be sustained; but on the principle of mutual benefit in voluntary exchange, as Professor Rothbard demonstrates.

[56] As Professor Rothbard puts it, "It is not possible. . . for an observer scientifically to compare the social utilities of results on the free market from one period of time to the next." Rothbard, "Toward a Reconstruction," p. 255.

[57] J.R. Hicks, "The Foundations of Welfare Economics," *Economic Journal* 49, no. 196 (December 1939): 696–712.

[58] To illustrate conditions under which the free market would not maximize social welfare (specifically imperfect competition), Hicks uses the example of a firm closing down. He says, "The loss involved in its cessation is measured by the compensation which would have to be given to consumers to make up for their loss of the opportunity to consume the missing product, plus the compensation which would have to be given to producers to make up for the excess of their earnings in this use over what they could earn in other uses." Ibid.: 709–10. Clearly, this "economic reform" involves no government intervention, but is a purely private affair of voluntary "reorganization" of factor usage.

[59] Ibid.: 706.

[60] Ibid.: 712.

[61] We are not here dealing with the right of self-ownership but with the fact of self-ownership. While moral ownership cannot be established merely by the fact of ownership, economic ownership can. For a natural-law argument for the right to self-ownership, see Murray N. Rothbard, *For a*

New Liberty, rev ed. (New York: Macmillan, [1973] 1978), pp. 26–37; and idem, *Ethics of Liberty*, pp. 29–34. For an axiomatic argument for the right to self-ownership, see Hans-Hermann Hoppe, *The Economics and Ethics of Private Property* (Boston: Kluwer Academic, 1993), pp. 195–201.

[62] See Ludwig von Mises, *The Ultimate Foundation of Economic Science*, 2nd ed. (Kansas City: Sheed Andrews and McMeel, [1962] 1978), pp. 1–9.

[63] On this process, see Hans-Hermann Hoppe, "Book Review of *Man, Economy, and Liberty*," *Review of Austrian Economics* 4 (1990): 257–58.

[64] Hoppe, *The Economics and Ethics of Private Property*, pp. 232–33.

[65] Cordato, *Welfare Economics*, p. 44.

[66] That these circumstances of action at any point in time depend on past action is clear; but this fact does not result in an infinite regress or indeterminacy since the starting point of the free market is self-ownership.

[67] Cordato's charge, that "Rothbard's conclusions [about the welfare properties of the free market] would only hold in an error-free world of perfect knowledge, where expectations necessarily coincide with results," is entirely unfounded. Cordato, *Welfare Economics*, p. 43. This charge is more suitably made against the New Welfare economics.

[68] Ibid., p. 44. Professor Rothbard's discussion of entrepreneurship is in *Man, Economy, and State* (Auburn, Ala.: Ludwig von Mises Institute, [1962] 1994), pp. 5–6, 55–56, and 463–69.

[69] Cordato, *Welfare Economics*, p. 43.

[70] Cordato himself criticizes the New Welfare economics for requiring both interpersonal and inter-temporal utility comparisons to implement Pareto Optimality. Cordato, *Welfare Economics*, pp. 6–7. Also, discussing his own concept of demonstrated preference, he says, "preferences that are revealed at one point in time cannot be assumed to remain constant over time." Ibid., p. 59. While it is impossible to say anything on demonstrated preference grounds about the *ex post*, subjective profit or loss of a sequence of actions, it is possible to calculate the monetary profit or loss of the specialized entrepreneur *ex post*, as shown above. Even in the case where a specialized entrepreneur earns profit (loss) from a sequence of actions, however, it is not possible to say that his *ex post utility* is greater (less) than that *ex ante*. Cordato makes this error in his example

of an individual who expends resources in a free market pursuing a goal, yet fails to reach it, when he concludes, “clearly he would have experienced a loss in utility.” Ibid., p. 43. Such a statement presupposes the ability to make inter-temporal utility comparisons.

[71] Ibid.: 43. On this criticism of Cordato, see Gordon, “Toward a Deconstruction,” p. 105.

[72] Murray Rothbard, *Power and Market* (Kansas City: Sheed Andrews and McMeel, 1970), pp. 18–20. David Gordon also makes this point in “Toward a Deconstruction,” p. 105.

[73] Cordato, *Welfare Economics*, p. 43.

[74] Consider the analogy of government taxing a person’s income. At the time the tax is paid, under duress, the person is made worse off than otherwise. After the tax is paid, he will adjust his action to the new circumstances, including this aggression, in the way he finds most preferable. That he does so is no refutation of the Pareto-Inferior nature of the interaction between the tax-man and himself.

[75] This is analogous to the distinction Professor Rothbard makes when discussing the difference between individual utility and total utility, as the aggregation of the marginal utilities of units of a stock, and the marginal utility of different-sized units. Total utility is an illegitimate, cardinal concept which must be rejected. As he points out, what is marginal, in cardinal terms, is the unit of the stock, not the utility obtained by its possession. See Rothbard, “Toward a Reconstruction,” pp. 234–35. Perhaps this definition of social welfare will satisfy those who have asked explicitly for one. See, Gary North, “Why Rothbard Will Never Win the Nobel Prize,” in *Man, Economy, and Liberty*, Block and Rockwell, eds., p. 105.

The Recession of 1990: An Austrian Explanation

Arthur Middleton Hughes

> In the misdirection of labor and the distortion of the structure of production during past business cycles, it was fairly easy to point to the places where the excessive expansion had occurred because it was, on the whole, confined to the capital goods industries . . .
>
> In contrast, the present expansion of money, which has been brought about partly by means of bank credit expansion and partly through budget deficits, has been the result of a deliberate policy and has gone through somewhat different channels . . .
>
> I do not doubt that in a sense we have today the same kind of phenomenon, but the over-expansion, the undue increase of labor employed in particular occupations, is not confined to a single, clearly defined block such as the capital-goods industries. It is now spread much more widely, and the distribution is much more difficult to describe. It is a field I would wish some statistically minded economist would investigate in order to show how the process operated in particular countries.
>
> Friedrich A. Hayek[1]

Why do we have booms and recessions? The conventional Keynesian view is that recessions are a failure of consumer demand. Keynesians, however, are not entirely clear on why consumers periodically act in unison to reduce their consumption. A more logical answer to the question is the Mises—Hayek theory of the business cycle. The ideas of Ludwig von Mises and Friedrich A. Hayek, central to the Austrian school of economics, suggest an entirely different approach to the business cycle from what has become the conventional wisdom for the last 40 years. It is the purpose of this paper to explore the

Austrian explanation of the business cycle, sometimes called the Austrian business cycle theory (ABCT), and to apply that theory to the recession of 1990–1992.

The Structure of Production

The Austrian view of the economy differs substantially from that of Keynesians or monetarists in their treatment of capital. Keynesians tend to lump the capital accumulated by various industries throughout the country into an amorphous and *given* "stock of capital."[2] Investment by business is treated in GNP analysis as a single variable, regardless of the type of business in which the investment takes place. Both Keynesians and Monetarists tend to deal with aggregates in explaining business cycle theory whereas, as pointed out by James Clark and James Keeler, "macroeconomic aggregates are not considered meaningful concepts by the Austrians who are more concerned with relative changes among the components of the aggregates."[3] In fact, the whole concept of the Gross National Product, as defined in conventional economics today, leaves out of the analysis more than 40 percent of the industrial activity going on every year—the activities in the higher stages of production.[4]

Austrian economists see the industry of any developed economy as a progression of activities from the most basic extraction of materials from the earth (by means of mining, forestry, fishing, or farming), through the production of semi-finished goods (such as lumber, steel, chemicals, and machinery), down to the production and sale of final goods and services to consumers.[5]

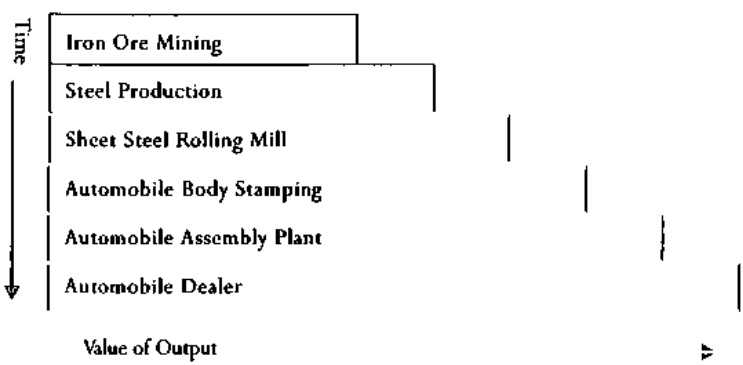

Figure 1. The Structure of Production

One big difference between the companies in different levels in the structure of production is the time that must elapse before their investments return a profit: see figure 1. A retailer may add a distribution warehouse, and begin to make a profit from it right away, in terms of having more stock on hand, fewer back orders, or greater ability to satisfy the consumer.

A higher-stage firm, such as a coal mine or primary metal producer, often has a much longer lead time. It may take five or ten years before a new plant can be built, equipped with proper machinery, staffed with trained workers, and put into full operation such that the profits from operations will begin to amortize the original investment.

Austrian economists add to this another reason for the different impact of interest rates on different levels of the structure of production. In the absence of governmental interference, interest rates in the market are determined by the interactions of the differing time preferences of borrowers and lenders of money. Interest rates send valuable and important signals to market participants. These signals have different meanings to industries depending on where they are on the structure of production. Higher-stage industries are far removed in time from the ultimate consumers. They must, as a result, use prices and interest rates as important messages about the state of the market. Lower-stage industries do not need these messages as much, since they meet daily with the consumers and can judge demand directly. It usually takes a long time for goods and services produced in higher stages to reach the ultimate consumer. A bar of iron, for example, may go through dozens of stages before it emerges as a rotor on a fan in someone's personal computer. Someone has to pay the interest charges on that piece of iron while it waits, in factory after factory, to be transformed, finally, into something that a consumer would want to buy. Higher-stage producers, therefore, without realizing it, must carry the burden of subsequent interest charges which, if the interest rates increase too much, will affect the sales of the consumer products made out of their output. Lower-stage producers, who are closer to the consumer in time, do not have to carry the same interest burden, and so are less affected by changes in rates.

Because of these dissimilarities, changes in the cost of capital result in very different investment patterns. For a lower-stage industry (such as a retailer, wholesaler, or food producer), the cost of capital is not as important, because the interest

charges do not have to be carried very long before the payout begins. For a higher-stage industry, increases in the cost of capital often mean the difference between undertaking a new project or not doing it at all.

Why Industries Differ in Capital Needs

To illustrate the difference, consider two different industries: a food retailer and a primary metals manufacturer.

The food retailer is selling a perishable commodity. He has few warehouses. Most of his capital is tied up in goods on display in his stores. Movement of stock is brisk. If he were to add a new store, a warehouse, or additional trucks, he would expect to build or buy them rapidly, and have them earning income within a year or so of the purchase decision. If the interest rate is 8 percent, or 12 percent—it does not matter very much. At 12 percent, he may hesitate to build a new store but he will still add to his truck fleet.

The primary-metal manufacturer has a very different attitude. Modern metal extraction and production involves environmental questions, very elaborate and expensive capital equipment, and many years of planning. A new steel, copper, or aluminum plant may cost many hundreds of millions of dollars, and take 10 years from site purchase to full production. Here, the interest rate is everything.

Suppose that the cost of a new plant is $200 million, and that it will pay a return of $40 million per year when it is completed. At a market rate of interest of 12 percent, such a plant would be worth $333 million. Time is money. How long would it be before the cost of interest payments would drive the original investment of $200 million up over $333 million? In other words, how much time does the firm have to build the plant before the investment is no longer profitable? The formula for the long term value (V) of an investment which yields Y amount per year when the market rate of interest is (r) is:

$$= Y/r$$
$$V = \$40/.12$$
$$V = \$333$$

The formula for the cost (C) including interest of an investment (I) for n years at (r) rate is:

$$C = 1(1 + r)^n$$

Solving for n, the formula becomes:

$$n = \text{Log}(C/I) / \text{Log}(1 + r)$$

The maximum time that an investor can afford to wait for his return is thus based both on the rate of interest, and the value of the expected yield in relation to his investment. His maximum time is when C = V If we substitute the value of the investment (Y/r) for C in the above formula, it becomes:

$$n = \text{Log}(Y/(I * r))/\text{Log}(1 + r)$$

If the interest rate is 12 percent, the plant must be up and running in four-and-a-half years, or the cost will exceed its market value.

$$n = \text{Log}(40/(200 * 0.12)) / \text{Log}(1.12)$$
$$n = 4.5 \text{ years.}$$

On the other hand, if the market rate of interest is 8 percent, the value of the same plant that returns $40 million per year is $500 million. At 8 percent per year, how long will it be before interest payments have forced an original investment of $200 million up to $500 million?

$$n = \text{Log}(Y/(I * r)) / \text{Log}(1 + r)$$
$$n = (\log(40/(200 * 0.08))/ \text{Log}(1.08)$$
$$n = 11.9 \text{ years}$$

So, at 8 percent they can afford to take a maximum of 11.9 years to build the plant before it is no longer profitable. Most higher-stage investments take longer than four-and-a-half years before they begin to pay dividends. Most lower-stage investments take much less time than that.

What this tells us is that the market rate of interest means different things to different segments of the structure of production. When rates go down, a great many higher stage projects that were uneconomic at high interest rates become at once feasible. When rates go up, many higher-stage long-term projects have to be scrapped. These simple rules do not apply to lower-stages of production, simply because their payoff times are much shorter. They don't have to pay as much interest on their typical project. A lower stage producer is less likely to embark on an investment project.

Why the Money Supply is Expanded

Western governments since the 1940s, following Keynesian principles, have increased their money supplies every year, thus leading to constantly-rising prices *believing that it was good for their economies*. They have also found that inflation is a good way to finance their governmental-spending programs without the need to increase taxes—the increased spending also being a Keynesian prescription for achieving full employment. How much increase in the money supply is the desirable goal? Keynesians and many monetarists would favor an annual increase of 5 to 6 percent per year.[6]

> A laissez faire system is doomed to wasteful ups and downs of the business cycle and perhaps to long fits of stagnation. . . . Simple capitalism has been replaced virtually everywhere by the mixed economy (a "welfare and managed economy"). Everywhere in the Western world, governments and central banks have shown they can win the battle of the lasting slump if people want them to . . . Just as we no longer meekly accept disease, we no longer need accept mass unemployment.[7]

The core of the Austrian macroeconomic theory is that government "fine tuning of the economy," through government-orchestrated expansions and contractions of the money supply, are actually the *cause* of business cycles because of the differing impact of the resulting interest rate changes on different stages in the structure of production. Roger Garrison has pointed out that Mises and subsequent Austrian theorists, influenced by Knut Wicksell, see a "distinction between the natural rate of interest and the bank rate of interest" and recognize "that the bank rate can diverge from the natural rate. . . The institutional setting in which the interest rate reflects both the intertemporal preferences of market participants and the actions of policy makers, then, figures importantly in the Austrian account of the artificial boom and inevitable bust. Fritz Machlup accurately summarized the Austrian view with the statement that '*monetary* factors *cause* the cycle but real phenomena *constitute* it'. . . . The focus of the Austrian theory is on the actual market process that translates the monetary cause into the real phenomena and hence on the institutional setting in which this process plays

itself out."[8] Here is the way it works.

The Austrian Explanation of the Business Cycle

When the money supply is expanded, the cost of capital comes down. Industries in higher stages find that many of their long-term projects are now feasible. They begin to build new productive facilities which have long-term payouts. To build these plants, they have to hire more workers which they pay with borrowed money. The hiring of workers, and the competition for capital equipment and resources, bids up the prices of goods and the wages of the workers, and increases interest rates. The rising rates put more pressure on the government to ease up credit by further increases in the money supply.

The increased money supply affects mainly the higher stages of production, not the lower stages, because it is higher stages that depend on long-term external capital infusion to undertake their development projects. Eventually, of course, the expansion also affects the lower stages, as highly-paid workers spend their wages on more consumer goods. A boom is in the making.

As long as the government keeps feeding the boom with more and more money, the good times roll. Higher-stage industries undertake more and more costly projects, and more and more workers move to those sectors. Their spending fuels the activities in other sectors, and their absence raises the wages of those still remaining in these sectors. Now all levels of production are competing for loanable funds. The game is up when the monetary authorities finally become alarmed at the level of price increases, and muster the courage to reverse their expansionary course, usually by raising the discount rate or selling bonds on the open market.[9] At this point, the good times come to an end. The expanded spending by consumers tends to force the interest rates back up.

The Coming of the Recession

The inflating economy is like a giant pyramid scheme. As long as the government keeps pouring money in, the system will keep going. Once the government stops, a recession is inevitable.

The first to go will be the long-term capital projects. As interest rates go up, new projects not yet started will be canceled. But many of those which are only half finished will

also have to be abandoned. One reason is that capital financing is often obtained on a pay-as-you-go basis. As industries compute the payoff for a project started when interest rates were 8 percent, which now must compete for funds at 12 percent, they realize that the project is a loser. They cut their losses, and abandon the enterprise. The workers are laid off, and often, much of the project is a total loss. The reason? Because most capital goods (semifinished goods and facilities) are specific to an industry, and have little general usefulness. It becomes apparent that much of the expansion undertaken in prior years was really false expansion, based not on a truly-growing economy, but on the government inflation of the money supply. As workers are laid off in higher-stage industries, they reduce their spending for consumer goods. The recession spreads.

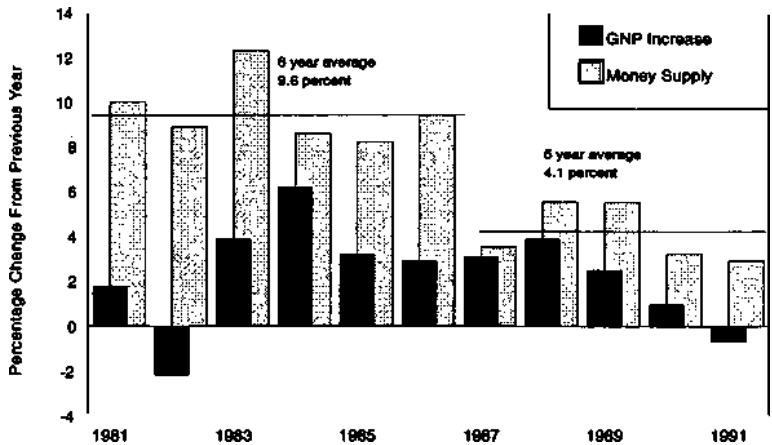

Figure 2. Money Supply Increase versus GNP Increase 1981–1991
Source: *Economic Report of the President 1992* M = M2

The Recession of 1990

The process just described took place during the years from 1981 to 1992. From 1981 to 1986 (and earlier), the Federal Reserve embarked on a massive increase in the money supply which averaged 9.6 percent per year while the GNP in real terms expanded by only 2.6 percent. From 1987 to 1991, the money supply increased by an average of only 4.1 percent per year while, the GNP increased by about 2 percent.[10] The dramatic drop in government money supply expansion is shown by Figure 2.

The money supply expansion from 1981 to 1986 resulted in

expanded bank loans to higher-stage industries, while lower stage industries, at first, were unaffected. As more workers were hired by these expanding industries, and others received pay increases and began to spend their pay on increased consumer goods, the lower-stage-industry bank borrowing increased. Lower-stage capital expansion is based more on anticipated consumer demand than upon the availability of capital. The precipitous drop in government money supply expansion after 1986 ended the boom in the higher-stage industries. This was the beginning of the recession—although it did not show up for four more years.

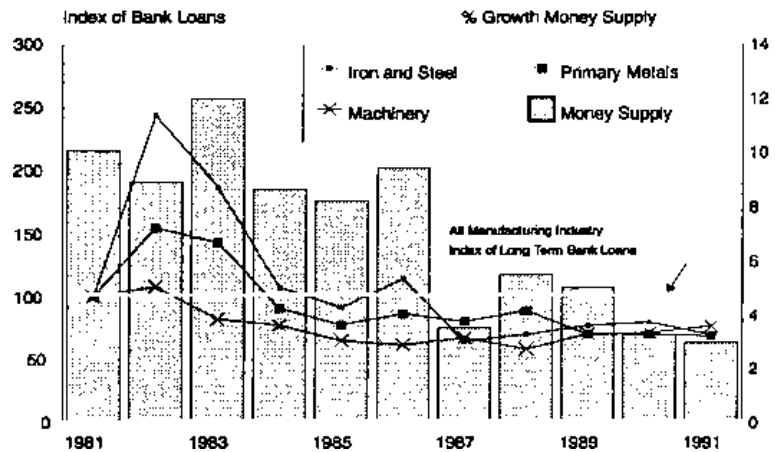

Figure 3. Long-Term Bank Loans by Higher-Stage Industries
1981–1991 All Manufacturing Bank Loans = 100
Source: *Quarterly Financial Report*, Census Bureau and Federal Reserve

Figure 3 depicts long-term bank loans to higher-stage industries (represented by iron and steel, primary metals, and machinery) relative to total-long-term bank loans to all manufacturing industries, superimposed on the annual growth of the M2 money supply. Notice how two of these industries increased their loans, in relation to all manufacturing loans, dramatically during 1982 and 1983. The increase was 250 percent in iron and steel and 150 percent for primary metals. Machinery industries—much lower in the structure of production than primary metals—increased their borrowing only slightly during the expansionary period and were generally below industry averages thereafter.[11]

The fact that the increases in higher stage borrowing from 1981 to 1985 were based on the increased availability of capital

funding rather than directly anticipated demand for increased output is shown by the statistics on industrial production during this period. The level of production in the iron and steel industry at the time was far below capacity (estimated at about 63.5 percent from 1981 to 1985)[12] due to the low level of orders. Lower-stage industries, closer to the consumer, showed no such increased borrowing levels during this period of massive money supply increases.

With the benefit of hindsight, we know today that net shipments of steel mill products would never regain their 1981 levels during the following decade. Why did they expand their production? All that industry participants knew at the time was that funding for expansion was available. Iron-ore production, much closer to its direct customers than the iron and steel industry, did not invest in expansion during the period, and, in fact, closed down several of its operating mines.[13]

When the massive money-supply increases came to an end in 1986, the iron and steel industry collapsed. Prices of their product dropped every year as the higher-capacity and more-efficient new facilities competed with the older plants for what was essentially a disappointing demand.

For the copper industry 1981–1985 were turbulent years. They were years of bankruptcies, shut down mines, laid off workers. But financing was available. Despite massive losses in the industry, Standard Oil of Ohio invested $400 million to modernize Kennecott's Utah Copper Division early in the period. After serious losses, the plant was shut down entirely in 1985.[14]

In looking at these figures, it is important to recognize that these numbers are industry averages only. Inside each number are dozens, or hundreds or thousands, of individual firms—some of which were borrowing heavily, others of which may have been doing nothing in the way of external financing. When the figures for an entire industry are shown to be at 270 percent of their previous level, this must mean that some individual firms had really increased their bank borrowing by a major amount. For primary metals, for example, bank loans in the first quarter of 1981 were listed at $4,010 million. By the first quarter of 1982, their level was $7,597 million. Iron and steel had a similar increase: from $1,832 million to $5,453 million. Machinery bank loans increased from $7,898 in 1981 to $10,428 millions by 1982.

But for iron and steel, and primary metals, the borrowing

surge stopped after 1984. Thereafter, their bank borrowing was less, proportionately, than the level of all manufacturing. The impact that money-supply increases produce on higher-stage investments is well illustrated by the activities of these two industries.

Lower-Stage Industry Long-Term Borrowing

Contrast this higher-stage borrowing and capital spending with the bank borrowing of lower-stage industries during the same period (1981–1991). Food, rubber, and textiles are industries that are much closer to consumers than are iron and steel and primary metals. We could have also looked at petroleum, drugs and motor vehicles as representative of lower-stage industries, but for special demand reasons, one could argue that the 1980s were not typical years for these groups.

Drugs were affected by the growth of the Medicare and Medicaid programs which began to be important during this period. American motor vehicles were competing heavily, for the first time, with the Japanese. Petroleum is a vertically-integrated multi-national industry with high capital investments in higher-order (drilling) and lower-order (refineries and gas stations) goods.[15]

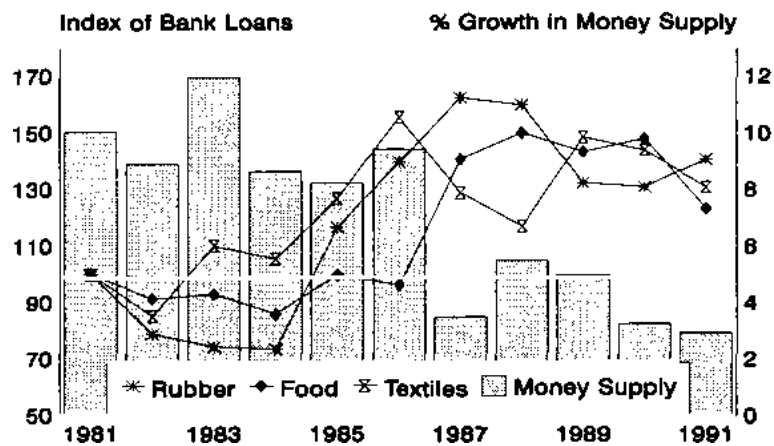

Figure 4. Long-Term Bank Loans by Lower-Order Industries, 1981–1991 All Manufacturing Bank Loans = 100

Source: *Quarterly Financial Reports 1962–1992*, Census Bureau, and Federal Reserve.

Figure 4 depicts the long-term bank borrowing of three lower-stage industries during 1981–1991 as contrasted with total

long-term bank lending to manufacturing industries during the period and the growth in the money supply. Our three lower-stage industries illustrate the Mises—Hayek theory. During the period of money supply expansion from 1981 to 1984, they generally maintained their bank loans virtually unaffected by the expansion of loanable funds. Towards the end of the expansion period, textile and rubber industries began to undertake long-term projects that pushed them up to 170 percent and 200 percent of industry averages by 1986. By 1987 consumer spending had driven even food industries to compete for bank-loan funds at a very high rate.

Notice that the peak borrowing for food and rubber came after 1986—at a time when the money-supply growth rate was being drastically curtailed. Why was that? The previous expansion in higher-stage industries produced an increase in consumer spending which pushed lower-stage manufacturers to borrow to expand their facilities to meet it.[16]

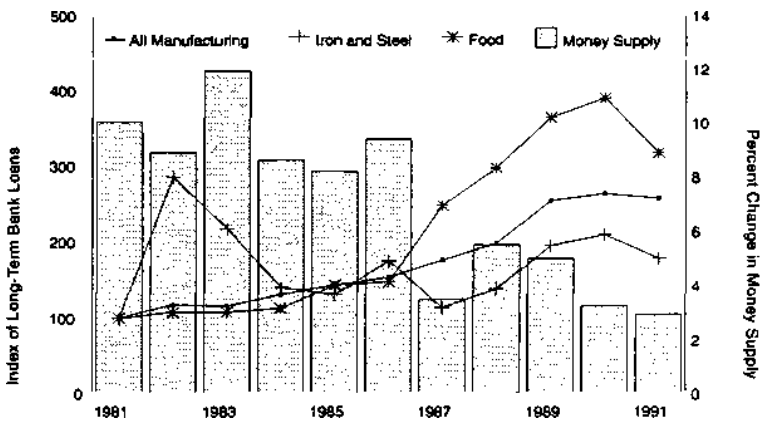

Figure 5. Long-Term Bank Loans to Industry 1981–1991
Source: *Quarterly Financial Report 1982–1992* and Federal Reserve 1981 = 100.

Figure S puts the entire period into perspective. It shows total dollar borrowing by all manufacturing industries adjusted for inflation—the producer's price index. As you can see, long-term bank borrowing by manufacturing industries increased steadily from 1981 to 1991.[17] The dramatic reduction in money supply increases in 1987 did not affect the total borrowing level at all—in fact the average annual increase in borrowing after 1986 was higher than before 1986. What did change was the distribution of that borrowing. Before 1986, most of the increase was led by higher-stage industrial borrowers,

represented here by iron and steel. After 1986, the increase in total borrowing was fueled by lower-stage industries, represented here by food.

Most traditional economists looked on the years from 1986 through 1988 as being boom years. They overlooked what was happening in higher-stage industries. What was going on in iron and steel, for example was this: LTV Corp., Wheeling-Pittsburgh Steel Corp. and Sharon Steel Corp., were all forced to file for bankruptcy following the collapse of steel demand in 1985 and 1986. This collapse accelerated the reduction of U.S. steel-making capacity, and triggered a major restructuring of the iron ore and steel industries on both sides of the U.S.-Canadian border.[18]

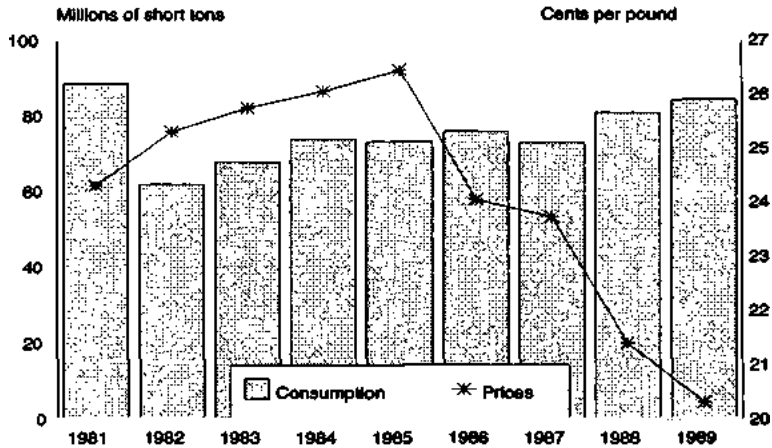

Figure 6. Iron and Steel Consumption and Prices
Source: *Minerals Yearbook 1989*

Figure 6 shows what happened to steel prices after the Federal Reserve stopped inflating the money supply. Consumption of steel failed to regain its 1981 levels in the subsequent decade.

The situation in copper was quite different, but illustrative of the same basic problems. Coinciding with the United States money-supply increases which began in 1981, the U.S. copper industry began a major inventory increase to 275 percent of 1979 levels by 1983. Beginning in 1984, inventories began to fall drastically every year until 1988, until they reached an average of about 14 percent of 1981 levels by 1989.[19]

In figure 7, we contrast long-term borrowing of all manufacturing, retailing, and wholesale firms. Retail borrowing

took a nosedive from 1981 to 1982—recession years—and stayed down all during the period when the Federal Reserve was inflating the money supply. Retail borrowing only accelerated in 1987—after the inflation of the money supply was over! Why? Because retail firms borrow to meet immediate customer demand. Higher-order firms borrow when financing is available on attractive terms.

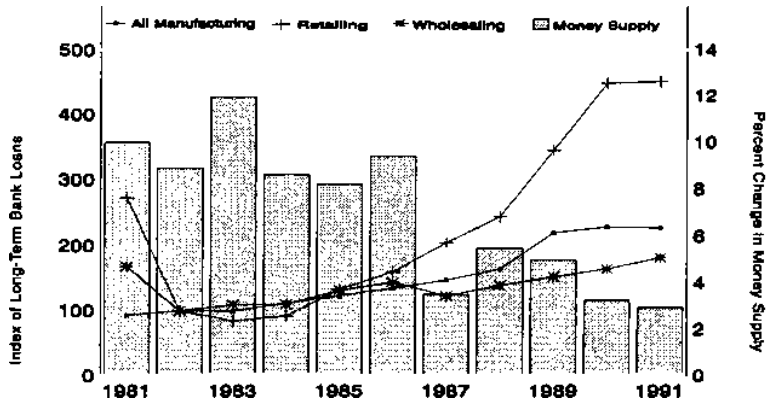

Figure 7. Bank Loans to Manufacturing, Retailing, and Wholesaling

Source: *Quarterly* Financial *Report* 1982–1992 and Federal Reserve 1982 = 100, adjusted for Producers Price Index

In the later stages of the boom, consumer spending competes with and overtakes all other types of activity. It is at this point that unused higher-stage capacity materializes because, as Hayek says, "We are unable to use the fixed plant to the full extent because the current demand for consumer's goods is too urgent to permit us to invest in current productive services in the long processes for which (in consequence of 'misdirections of capital') the necessary durable equipment is available."[20] In the last part of the decade, retail use of loan funds, secured to meet expanding consumer spending, dwarfed the growth rates of manufacturing and wholesaling borrowing activities. In a contest, lower stages always win.

The data assembled here provide an illustration of the working of Austrian business cycle theory,[21] namely, that business cycles are caused by government inflation of the money supply, leading to excessive borrowing by higher-stage industries. This borrowing produces a boom which must come to an end when the inflationary activities stop—as they must, when the government can no longer continue to stoke the monetary

fires with more and more monetary expansion. The end of the boom leads to a crack-up and a recession.

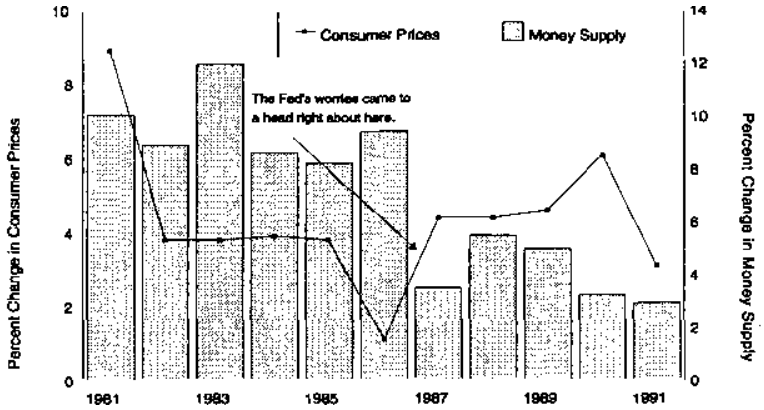

Figure 8. The Fed Loses Its Nerve
Source: Bureau of Labor Statistics and Federal Reserve

The recession did not begin until 1990, but the seeds were planted in 1981–1986, with the money supply expansion. The recession was triggered in 1987 when the Federal Reserve lost its nerve to continue the inflationary spiral. What caused the Federal Reserve to alter its policy so drastically in 1987?

1987: The Fed Lost Its Nerve

Why the Federal Reserve alters its policies is always a matter for speculation. It is seldom one single thing that is crucial. The Fed worries about inflation, deficits, the money supply, interest rates, and unemployment. But certainly a key concern in the past 20 years has been the value of money, as represented by the consumer price index.

Figure 8 shows one key variable—the consumer price index—against the annual growth rate of M2. The Fed pursued a high inflation policy for 6 years. During all of these years, prices were flat or falling. Then, in 1986, prices began to climb. Eight years previously, in the fall of 1979, the Federal Reserve changed its policies dramatically when it decided to clamp down on double-digit inflation. Its actions produced the recession of 1982, and a halt in the inflationary spiral. Price increases from 1982 through 1985 were held to a flat 3.8 percent per year. The shift was welcome news for the public and for businessmen generally. When price increases in 1986 dropped to a low of only 1.1 percent, there was rejoicing in all quarters. But while the Fed

leaders were happy about the price levels, there was real concern about the growth of the money supply. Even the non-Austrian Fed economists realized that the country would have to pay for the excessive growth in money at some point. The year 1987 looked like that point.

Consumer price increases, led by medical costs due to Medicare and Medicaid, began to zoom up. When the 1987 rise passed the 3.8 ceiling and kept on rising, the Fed lost its nerve. It put the brakes on money supply increases in a drastic way, and kept them on for the next 5 years. Some would point to this decision and say that the recession of 1990–92 was caused by Fed actions in 1987. That may be true. But Austrians know that that is not the whole story. The actions which led to the recession really took place from 1981–86. Once the money supply was inflated during this period, the actions of 1987–1991 were inevitable, and so was the recession.

During the time between 1987 and 1990, the public was unaware of the time bomb ticking away. Life went on as usual. New businesses were formed at an expanding rate, and business failures were on the decline. Corporate profits from 1987 to 1989 rose by 31 percent. Consumer prices rose by 4.4 to 6.1 percent. Mortgage debt rose by 48 percent from 1986 to 1990, and consumer credit rose by 22 percent in the same period.[22] None of the standard signals showed to Keynesian economists any sign of the impending recession, for one very simple reason: *they were looking in the wrong place*.

Conclusion

Deficit spending and money-supply expansion do not eliminate recessions. They *cause* recessions. This fact will never be understood unless economists and government policymakers stop trying to micro-manage the economy, and start studying what their actions are doing to the structure of production. Heavy inflation of the money supply followed by sharp cutbacks change the rules right in the middle of the game for millions of businesses in the economy.

For the last 40 years, government expansionary policies have stimulated industries to create false and untenable investments. These policies are followed by government corrective actions that destroy those same projects—waste the billions of dollars invested in them, and throw millions out of work. Business cycles are not an essential feature of market capitalism. They are the

result of government interference with the market.

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[1] Friedrich A. Hayek, *New Studies in Philosophy, Politics, Economics and the History of Ideas* (Chicago: University of Chicago Press 1978), p. 212–13.

[2] John Maynard Keynes, *The General Theory of Employment, Interest, and Money* (New York: Harcourt Brace, 1936), p. 245. "This does not mean that we assume these factors [including capital] to be constant; but merely that, in this place and context, we are not considering or taking into account the effects and consequences of changes in them."

[3] James Clark and James Keeler, "Misconceptions about Austrian Business Cycle Theory: A Comment," *Review of Austrian Economics* 4 (1990): 208–11.

[4] In 1986, according to the Department of Commerce study "The Interindustry Structure of the United States," 43.8 percent of the output of all business units was of "intermediate goods" (or capital goods requiring further work before they are ready for the ultimate consumer). The remaining 56.2 percent were final goods, for purchase by individuals, governments, and other businesses. This 43.8 percent representing intermediate goods does not show up in the Gross National Product accounts at all, which treats capital as consisting only of the final goods purchased by businesses.

	Millions of Dollars	**Percent**
Gross Intermediate Products	$3,297,977	43.8
Gross National Product	$4,235,116	56.2
Gross National Output	$7,533,093	100.0

[5] Friedrich A. Hayek, *The Pure Theory of Capital* (Chicago: University of Chicago Press, [1941] 1975), chaps. 5 and 6.

[6] Paul Samuelson, *Economics*, 10th ed. (New York: McGraw-Hill, 1976), p. 332.

[7] Ibid., p. 345.

[8] Roger W. Garrison, "New Classical and Old Austrian Economics: Equilibrium Business Cycle Theory in Perspective," *Review of Austrian Economics* 5, no. 1 (1991): 91–103.

[9] Mark Skousen, *The Structure of Production* (New York: New York University Press, 1990), pp. 300–1.

[10] *Economic Report of the President 1992* (Washington, D.C.: U.S. Government Printing Office, 1992), pp. 300 and 373.

[11] *The Quarterly Financial Report Program* (*QFR*) of the Bureau of the Census publishes aggregate statistics on the financial results and position of U.S. corporations based on an extensive sample survey. The series began in 1947 and is issued in a 145-page book every quarter. Data are extracted from IRS Form 1120 reports. Use of statistics such as these, which were gathered for another purpose entirely, is bound to result in certain inaccuracies for analytical purposes. Most corporations produce a product mix that does not easily fit into standard SIC (Standard Industrial Classification) codes. The series is used as a basis for the analysis in this paper because it is, basically, the only game in town. The categories covered by the data into which corporations are divided include the following (these are a sample). The column headed "Long-Term Loans" represents long-term loans (due in more than 1 year) from banks in the first quarter 1982 as stated in millions of dollars.

	Long-Term Loans		**Long-Term Loans**
All Manufacturing	74,129		
All Durable	39,198	All Non-Durable	34,931
Stone, Clay	2,431	Food	7,364
Primary Metals	7,597	Textile Mill	1,824
Iron Steel	5,453	Paper	2,222
Non Ferrous	2,144	Printing & Publ	3,656
Fabricated Metals	4,575	Chemicals	5,238
Machinery	10,428	Indus Chem	2,346
Electrical	3,870	Drugs	352
Transport	4,627	Petroleum & Coal	6,919
Motor Vehicles	1,211	Rubber	1,737
Aircraft	1,802	Other Non-Durable	2,158
Instruments	1,296		

Other Durable 4,373

Note: The figures do not add up to the total because they are a selection from a large government survey. The selection of industries to illustrate this paper was a subjective one. The statistics in the survey were not collected based on the stage of production. Every industry grouping for which statistics exist is a combination of different heterogeneous companies making different products. I picked the groupings (iron and steel, primary metals, food, textiles, rubber, wholesaling, and retailing) because they seemed to, in general, represent examples of higher-order and lower-order industries. They help to illustrate the Mises-Hayek trade-cycle theory. These examples do not *prove* the validity of the theory, which is an apriori statement which does not require empirical verification.

[12] *Minerals Yearbook 1985*, United States Department of the Interior, p. 577. In 1982—the year of the greatest long-term capital borrowing in the industry—capacity utilization in raw steel was only 48.4 percent.

[13] *Minerals Yearbook 1985*, p. 555–56, reports the following: From 1981 to 1985 US Steel invested $300 million over four years to modernize its Pittsburg, California mill. Timken invested $500 million in a new plant at Canton, Ohio. Tuscaloosa Steel built a new $75 million rolling mill in Alabama. Great Lakes Steel spent $200 million to modernize its plant in Michigan. Wheeling-Pittsburgh, in bankruptcy, began construction on a $50 million plant in West Virginia.

[14] *Minerals Yearbook 1985*, p. 320–26. Newmont Mining closed their Superior Mine in 1985, taking a $40 million loss. Despite this, they planned to invest $71 million to open a new San Manuel Mine. In 1985, the Burro Chief Copper Company completed a $15 million program to double their operations. Phelps Dodge planned on a $90 million investment at their Morenci Mine in 1985.

[15] It is easier to describe the concept of higher-stage and lower-stage industries than to obtain statistics on them. Logging obviously comes before sawmills which come before drying kilns. Most businesses are involved in many different activities in which the stages overlap. Statistics are not collected based on the structure of production.

The best government source which provides a breakdown relevant to the structure of production is a survey done every 5 years by the Department of Commerce, called the “Interindustry

Structure of the United States," based on work by Wassily E. Leontief, whose first tables were prepared for 1919, 1929, and 1939. It provides a rough guide to understanding the position of the industries in the QFR, although not a definitive one.

[16] From 1981 to 1986, real consumption spending in 1987 dollars increased by 19.7 percent, whereas real GNP increased only 15.7 percent in the same period. Consumers were trying to restore their spending patterns after the recession of 1982.

[17] From $60.5 billion in 1981 to $197.2 billion in 1991, in current dollars. *Quarterly Financial Report of the Bureau of the Census*, 1982–1992.

[18] *Minerals Yearbook 1989* (Washington, D.C.: United States Department of the Interior Bureau of Mine's, 1989), vol. 1, pp. 523–24. U.S. consumption of iron ore from 1980 through 1986 tells the story (p. 554):

Thousands of Metric Tons	
1980	91,983
1981	97,903
1982	57,203
1983	63,050
1984	68,450
1985	66,049
1986	57,513

[19] *Minerals Yearbook 1989*, p. 359. Despite this buildup of inventory from 1980–83, world consumption of copper was almost flat from 1980 to 1989. The buildup, therefore, cannot be ascribed to increased demand (p 352).

[20] F. A. Hayek, *Prices and Production* 2nd ed. (New York; Augustus M. Kelley [1935] 1967), p. 96.

[21] As Friedrich Hayek said in *Monetary Theory and the Trade Cycle* (New York: Augustus M. Kelley, [1933] 1966). "The corroboration of statistical evidence provides, in itself, no proof of correctness. *A priori* we cannot expect from statistics anything than the stimulus provided by the indication of new problems. In thus emphasizing the fact that trade cycle theory, while it may serve as a basis for statistical research, can never itself be established by the latter, it is by no means desired to deprecate the value of the empirical method. On the contrary there can be no doubt that trade cycle theory can only gain full practical importance through exact measurement of the actual course of the phenomena which it describes." pp. 31–32.

[22] *Economic Report of the President* 1993, pp. 411, 433,

434, 447.

Notes and Replies

How Different Were Röpke and Mises?

Ivan Pongracic

In *The Wilhelm Röpke Review*, founder and editor Ralph E. Ancil seeks to draw a sharp distinction between the views of Wilhelm Röpke and Ludwig von Mises.[1] Ancil complains that Röpke has been "co-opted into the more or less libertarian thinkers whose position is further enhanced by whatever weight or prestige his name may give." Somehow, Ancil says, libertarians and Austrians presume that Röpke and Mises "are in agreement on all important issues." But, insists Ancil, "nothing could be more incorrect."

Since "nothing" is a strong word, the claim needs to be considered carefully.[2] A good place to begin is with these very Misesian statements by Röpke:

> The conviction that true creative power can prosper only in liberty and not in the graveyard silence of prescribed opinions, that without intellectual individuality society and the state must eventually wither, that man has a right to protection against arbitrary power and the abuse of power, that the crushing of every divergence of opinion and of any individual cast of mind must eventually lead to a boredom in which the nation's intellectual life is stilled, which lacks the happiness of laughter, every sign of humor, and the spice of life, and in which nothing flourishes but the brutish earnestness of the fanatic—that conviction, and nothing else, constitutes the liberal's much-maligned and much-misunderstood *individualism*. Most illiberals take it for an expression of smug materialism.[3]
>
> [O]ur often so reckless anti-capitalists would do well to get thoroughly acquainted with the voluminous literature on economics, which

demonstrates that in practice socialism must founder on the impossibility of economic calculation in a socialist community.[4]

[T]he welfare state's compulsory aid paralyzes people's willingness to take care of their own needs and its financial burden considerably weakens people's ability to do so, while on the other hand, this limitation of self-provision makes people more and more dependent upon compulsory public aid and increases their claim on it.[5]

In spite of its alluring name, the welfare state stands or falls by compulsion. It is compulsion imposed upon us with the state's power to punish noncompliance. Once this is clear, it is equally clear that the welfare state is an evil the same as each and every restriction of freedom.[6]

[E]conomics as a science has its origin in rational criticism of the naively unscientific government practices of mercantilism.[7]

Political anarchy leads invariably to chaos. But anarchy in economics, strangely, produces an opposite result: an orderly cosmos. Our economic system may be anarchic but is not chaotic. He who does not find this a wondrous phenomenon and thereby deserving of the most patient study cannot be expected to take much or an interest in economics.[8]

[T]he "capitalistic" economic process can be compared to a continuing plebiscite in which each piece of currency represents a ballot and in which the consumers, via their demand, are constantly voting to decide what types and amounts of goods shall be produced.[9]

Mises's social philosophy is immediately recognizable. Should Mr. Ancil really be so anxious to disprove the fact that Mises and Röpke are "in agreement on all important matters?" Röpke himself never expressed any disagreement with Mises, and cited Mises frequently on a range of issues from monetary theory to method. Röpke spent his life defending the same cause as Mises—a free society—and using the tools provided by the Austrian tradition to bolster his case.

Nevertheless, from the beginning, *The Röpke Review* has been

more interested in refuting “laissez-faire” ideology and its “latent nihilism” than in celebrating the common cause of Röpke and the broader Austrian tradition. While preparing the ground for an anti-Misesian onslaught, Mr. Ancil wanted to convince his readers that Röpke and Mises represent two totally different social philosophies. Mises, according to Mr. Ancil, believed in “no enduring values, no permanent things, no absolute truths.”

On the one side there is a defender of “a free and truly humane society,” who, according to Mr. Ancil, believed that “there is more to life and the economy than technical economics comprehends.” On the other side a dogmatic pragmatist, who, although a “staunch defender of freedom and free markets,” was too “technical” and “rather short-sighted,” about “legitimate government action.”

As such, Röpke and Mises differed in three vital areas: first, they had different solutions to the (“false”) dilemma of “either socialism or capitalism.” Second, they disagreed about the nature of market intervention. Third, they “differ[ed] in their judgments on the sufficiency and character of the competitive system.” After analyzing all three, Mr. Ancil concludes that Röpke, although agreeing with Mises “on technical economics,” understood better “the broader field of political economy and the important questions of how man should live.”

Now, Mr. Ancil is free to believe whatever he wants, and make it public in his journal, but what should worry both Röpkeans and Misesians together is Wilhelm Röpke’s reputation among those readers that are not so cognizant of his writings. If we let Röpke speak for himself on these precise points, a different picture emerges.

Wilhelm Röpke was an economist who had a historic opportunity, in 1948, to put Austrian economics to the test and to prove its practical viability. He did it by influencing, from his voluntary exile in Switzerland, his student Ludwig Erhard, the German economics minister.

The result was, of course, an economic miracle. (Röpke himself was constantly emphasizing in his writings that there was nothing miraculous in this. It was simply the application of sound economic principles: “Its success was on the contrary precisely what its architects had expected.”[10]) Röpke did express one regret about the reform: it did not go far enough. The post-war reform was imperfect: “residues of collectivism, such as rent control, were scattered about the market economy like unexploded mines, and they proved to be exceedingly

difficult to dispose of through normal democratic procedures."[11]

Later, Röpke realized that Germany was turning away from the principles of the free society, and he tried to stop the socialization of the German economy by describing repeatedly what a free-market economy is all about. Röpke insists that "instead of trying to acquire the facile reputation of a 'social-minded' man by vague demands for a 'just wage,' by railing against 'interest slavery' and 'profiteering,' by emotional outpourings over 'gluttonous landlords,' and real estate 'speculators,' and instead of shoving aside as 'liberalistic' the objections of those who understand something of these matters, one would serve his country better by applying himself to an unprejudiced study of the complex interrelationships of the economy."[12]

He wanted every German to understand that "our economic system stands or fails with competition, since only competition can tame the torrent of private interests and transform them into a force of good. It is competition which sees to it that the high road to profit is entered only by the rendering of an equivalent service (business principle). To restrict competition, then, is to jeopardize the principle of economic reciprocity."[13]

Unfortunately for the Germans, they soon responded to the siren song of a "third way." Their destiny was sealed when Socialist Willy Brandt became the Chancellor; with him, the free-market experiment was finished. Röpke foresaw all this and, like Mises, tried to prevent it. "The history of German economic policy since 1948," Röpke wrote, "has proved that economic freedom is like any other freedom: it must, as Goethe says, be conquered anew each day."[14]

"It cannot be too strongly emphasized that as far as the task of ordering economic life is concerned, we have only this exclusive choice between market economy and command economy," he warned. Then, in a passage which Mr. Ancil apparently overlooked, he made it clear that "[w]e cannot take refuge in some third alternative, in cooperatives, trade unions, . . . or any other form of 'ersatz' socialism. We must choose between price or state command, between the market and the authorities, between economic freedom or bureaucracy. . . . He who chooses the market economy must, however, also choose: free formation of prices, competition, risk of loss and chance for gain, individual responsibility, free enterprise, private property."[15]

Because Germans and other West Europeans refused to

listen, “ersatz” socialism is now keeping most Western European countries in deep recession. The European “third road” turned out to be neither “more realistic” nor “more humane,” as Mr. Ancil would have us believe. Yet, Germany is currently undergoing its greatest economic difficulties since World War II, a result not of integration with East Germany as such, but of welfarism, unsustainable social insurance, inflexible regulations, an investment environment unfriendly to entrepreneurship, an overgrown bureaucracy, and a dependent middle class—all the sins of the “third way.” Germany’s welfare state (and Sweden’s and Finland’s and all others, for that matter) may eventually come to an end with a bang not smaller than the one produced by the end of Communism.

Ancil, who repeatedly states in his writing that market is not everything (as if Mises ever stated that it was), forgets that both Mises and Röpke understood that the market is the only efficient way of coordinating the actions of producers and consumers. “The market economy has the ability to use the motive power of individual self-interest for turning the turbines of production,” writes Röpke, adding that “if the collectivist economy is to function, it needs heroes or saints, and since there are none, it leads straight to the police state.” “Nothing could more strikingly demonstrate the positive value of self-interested action than that its denial destroys civilization and enslaves men.”[16]

Röpke nails down his message from the “Preface” to *A Humane Economy* (that the book was going to anger, among others, “pure moralists and romantics, who may perhaps cite me as proof of how a pure soul can be corrupted by political economy”[17]), with this conclusion: “Any attempt to base an economic order on a morality considerably higher than the common man’s must end up in compulsion and the organized intoxication of the masses through propaganda.”[18]

For those who refused to understand this fact, Röpke had little patience: “What overweening arrogance there is in the disparagement of things economic, what ignorant neglect of the sum of work, sacrifice, devotion, pioneering spirit, common decency, and conscientiousness upon which depends the bare life of the world’s enormous and ever growing population! The sum of all these humble things supports the whole edifice of our civilization, and without them there could be neither freedom nor justice, the masses would not have a life fit for human beings, and no helping hand would be extended to anyone. . . . Romanticizing and moralistic contempt of the economy,

including contempt of the impulses which move the market economy and the institutions that support it, must be as far from our minds as economism, materialism, and utilitarianism."[19]

Röpke's "third road" is thus not about saving us from the market economy (in which "anything goes," according to Mr. Ancil), but about solving our political, social, legal, and moral problems without which the free market cannot exist. Despite Ancil's opinion that, for Röpke, the market "cannot serve its own foundation; it is not self-sufficient; it is not a source of community; and it is not a cure for other ills," Röpke himself made the most important clarification of his own position. "In the absence of a market economy these problems are, in fact, insoluble; only such an economy can guarantee us order in freedom, without which all the rest is in vain."[20]

Röpke explains his "third road" as a road between socialism and a system laden with "super-organization, centralization, Gargantuan concerns, machine giants, mammoth towns, and titanic plans" (hardly a "libertarian" economy).[21] The "third road" is to save us from "boredom" of a system that tends "to centralize and overorganize the economy and society in a way which neglects the human element."[22] It is only "the market economy, with its variety, its stress on individual action and responsibility, and its elementary freedoms, [that] is still the source of powerful forces counteracting [this] boredom of mass society and industrial life, which are common to both capitalism and socialism."[23] The "more we adulterate the market economy with admixtures of intervention, the higher rises the watermark of compulsion, the narrower becomes the area of freedom."[24]

The "third road" is also to save us from the economists who are "fascinated by the mathematical elegance of fashionable macroeconomic models, by the problems of moving aggregates, by the seduction of grandiose projects for balanced growth, by the dynamizing effects of advertising or consumer credit, by the merits of 'functional' public finance, or by the glamour of progress surrounding giant concerns."[25] For these people, "the economy takes on the appearance of a giant pumping engine, and it is quite consistent" that economic science "is turning itself into a sort of engineering science. Equations proliferate, while the theory of prices all but falls into oblivion."[26] It is precisely this tendency against which Mises battled during much of his life.

For Röpke, as for Mises, a "[f]ree economy stands or falls

with the free entrepreneur and merchant, just as such an economy is inconceivable without free prices and markets. There is no way of defending the free economy against the still powerful forces of collectivism except by having the courage to stand by these central figures of a free economy and protect them from the wave of distrust and resentment to which . . . they are exposed."[27]

There can be no doubt that Röpke was a Misesian in more ways than just "technical economics." In a 1959 tribute, F.A. Hayek credits Röpke for rightly believing that "an economist who is nothing but an economist cannot be a good economist." But this insight, said Hayek, was pioneered by "a man of the preceding generation," Ludwig von Mises, "whose decisive work had just appeared when we concluded our studies." It was Mises's *Socialism* (1922) that first "demonstrated how economic thought can serve as the basis for a comprehensive social philosophy and can provide answers to the pressing problems of the time." Mises provided the model that "determined the common development of our generation," including the writings of Röpke.[28]

The market *economy* is the *sine qua non* of a free society, and it was positively endorsed by Röpke: "I champion an economic order ruled by free prices and markets . . . the only economic order compatible with human freedom, with a state and society which safeguard freedom, and with the rule of law. . . . There is a profound ethical reason why an economy governed by free prices, free markets, and free competition implies health and plenty, while the socialist economy means sickness, disorder, and lower productivity. The liberal economic system releases and utilizes the extraordinary forces inherent in individual self-assertion, whereas the socialist system suppresses them and wears itself out in opposing them. We have . . . every reason to distrust the moralizing attitudes of those who condemn the free economy."[29]

Röpke knew that, "however much we may have had to criticize it," it is "impossible to overstate the value of the impersonal integration of people through the market in comparison with their conglomeration in a collectivist economy . . . it does have the merit of coordinating rather than subordinating people. The market and power do not go well together."[30]

The state, on the other hand, is the market's "most immediate and tangible threat . . . I want to repeat this because

it cannot be stressed too much. The state and the concentration of its power, exemplified in the predominance of the budget, have become a cancerous growth gnawing at the freedom and order of society and economy."[31] In supposed contrast, Ancil accuses *Mises* of being "dogmatic" and "rather short-sighted" about "legitimate government action." Röpke's final warning against "the eternal romantic's contempt of the economy, a contempt shared often enough by reactionaries and revolutionaries, as well as by aloof aesthetes"[32] was a warning for all the future Ancils to heed.

One might think that *The Wilhelm Röpke Review* would be devoted to what Röpke saw as the real enemy, the planned economy. After all, we remain at the mercy of neo-Keynesian government policy, when government consumes as much as half of the national wealth, when neo-Keynesians are well positioned on the Federal Reserve Board. Why shouldn't John Maynard Keynes (whose economics Röpke described as "a typically intellectual construction that forgets the social reality behind the integral calculus"[33]), his followers, and his legacy, and not Mises, be the focus of attack?

One final note. There was probably less disagreement between Röpke and Mises than between Mises and Hayek, yet it was Hayek who several times emphasized that, although he "wasn't always satisfied by [Mises's] arguments," or found seldom his "arguments to be completely convincing," in the end he "only slowly learned that [Mises] was mostly right."[34] Would that other misguided critics acquire such humility.

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[1] Ralph E. Ancil, "Röpke and Von Mises: The Difference," *The Wilhelm Röpke Review* (Winter/Spring 1994): 5–6.

[2] Ancil is not alone among American conservatives in drawing sharp distinction between Röpke and the other Austrians, especially Mises. One example among many: "Unlike many of the 'Austrian' and 'monetarist' economists," writes Gregory Wolfe, "whose ideas about human nature and government are shallow, and influenced primarily by abstract individualism, Röpke was a man of broad culture." *Right Minds: A Sourcebook of American Conservative Thought* (Chicago: Regnery

Books, 1987), p. 174.

[3] Wilhelm Röpke, “End of an Era?” (1933), in idem, *Against the Tide* (Chicago: Henry Regnery, 1969), p. 8, emphasis in original.

[4] Röpke, “The Intellectuals and Capitalism” (1931), in idem, *Against the Tide*, p. 28.

[5] Röpke, “Robbing Peter to Pay Paul: On the Nature of the Welfare State” (1958), in idem, *Against the Tide*, p. 210.

[6] Ibid., p. 212.

[7] Röpke, “End of an Era?” p. 91.

[8] Wilhelm Röpke, *Economics of the Free Society* (Chicago: Henry Regnery 1963), p. 4.

[9] Ibid., p. 197.

[10] Ibid., p. 247.

[11] Wilhelm Röpke, *A Humane Economy* (South Bend, Ind.: Gateway Editions, 1960), p. 28.

[12] Röpke, *Economics of the Free Society*, p. 186.

[13] Ibid., p. 236.

[14] Röpke, *A Humane Economy*, p. 27.

[15] Röpke, *Economics of the Free Society*, p. 254.

[16] Röpke, *A Humane Economy*, p. 121.

[17] Ibid., “Preface to the English Language Edition,” p. v.

[18] Ibid., p. 121.

[19] Röpke, *A Humane Economy*, p. 106–7. As for the supposed economism of which Mises is sometimes accused, Mises himself says “it was a fundamental mistake . . . to interpret economics as the characterization of the behavior of an ideal type, the *homo oeconomicus*. According to this doctrine traditional or orthodox economics does not deal with the behavior of man as he really is and acts, but with a fictitious or hypothetical image. It pictures a being driven exclusively by ‘economic’ motives, i.e., solely by the intention of making the greatest possible material or monetary profit. Such a being, say these critics, does not have and never did have a counterpart in reality; it is a phantom of a spurious armchair philosophy No man is exclusively motivated by the desire to become as rich as possible; many are not at all influenced by this mean craving. It is vain to refer to such an illusory homunculus in dealing with life and history,” Ludwig von Mises, *Human Action* (Chicago: Henry Regnery, 1966), p. 62. While Mises thought classical economics was too often caricatured in this regard, he further clarified matters by *insisting* economists should not study *homo oeconomicus* but *homo agens*, i.e. acting man.

In contrast to those who would rank Mises among the materialists, Mises himself writes that "[I]n reality no food is valued solely for its nutritive power and no garment or house solely for the protection it affords against cold weather and rain. It cannot be denied that the demand for goods is widely influenced by metaphysical, religious, and ethical considerations, by aesthetic value judgments, by customs, habits, prejudices, tradition, changing fashions, and many other things. To an economist who would try to restrict his investigations to 'material' aspects only, the subject matter of inquiry vanishes as soon as he wants to catch it." Ibid., p. 234.

Röpke held the identical view: "The ordinary man is not such a *homo oeconomicus*, just as he is neither hero nor saint. The motives which drive people toward economic success are as varied as the human soul itself." Röpke, *A Humane Economy*, p. 121.

[20] Röpke, *Economics of the Free Society*, p. 256.

[21] Röpke, *A Humane Economy*, p. 259.

[22] Ibid., p. 255.

[23] Ibid., p. 87.

[24] Ibid., p. 261.

[25] Ibid., p. 99.

[26] Ibid., p. 247.

[27] Ibid., p. 30.

[28] F.A. Hayek, *The Fortunes of Liberalism: Essays on Austrian Economics and the Ideal of Freedom* (Chicago: University of Chicago Press, 1992), p. 196.

[29] Röpke, *A Humane Economy*, p. 6.

[30] Ibid., p. 237.

[31] Ibid., p. 33.

[32] Ibid., p 118.

[33] Röpke, "Keynes and the Revolution in Economics" (1952), in idem, *Against the Tide*, p. 180.

[34] F.A. Hayek, "Introduction," to the German edition of Mises's *Notes and Recollections*, Hans-Hermann Hoppe, trans., *Austrian Economics Newsletter* (Fall 1988): 1–3.

Calculation and Knowledge: Let's Write *Finis*

Leland B. Yeager

I regret prolonging the discussion, but remarks by Joseph Salerno, Hans-Hermann Hoppe, and Jeffrey Herbener in the first 1996 issue of this *Review* foster the impression that my position is so wrong as to require further discussion. They obscure what the original issue was.[1] In earlier writings, Murray Rothbard, Joseph Salerno, and Jeffrey Herbener had tried to distinguish between calculation and knowledge problems besetting socialism. F.A. Hayek, they suggested, had shoved aside or perverted the analysis that Ludwig von Mises got straight in the first place. My 1994 article challenged this supposed distinction.[2] I argued that knowledge was intimately bound up with the calculation problem that Mises had diagnosed. Hayek elaborated on points that were implicit and very nearly explicit in Mises's own writings.

Neither Salerno's "Reply"[3] nor his and the other two latest comments justify the supposed wedge driven between the analyses of Mises and Hayek. They do not adequately specify the supposed crucial nonknowledge aspects of the calculation problem that Mises emphasized and from which Hayek diverted attention. Yet Hoppe says that "Hayek's distinct contribution to the debate was fallacious from the outset"[4] and "false, confusing, and irrelevant"[5]; Hayek's thesis is "absurd" and "nonsensical."[6]

Hoppe blames Hayek for playing down the importance of private property. But the whole discussion concerned an inherent flaw of socialism, conceived of as government ownership and administration of the means of production (as socialism was indeed generally understood when Mises wrote his critique). The whole discussion concerned *why* a system of private property and private enterprise is much superior to socialism. Mises and Hayek went beyond merely trumpeting this superiority. In setting forth the calculation problem, both were explaining *reasons* why the private-property system is superior to socialism.

Salerno[7] says I make a "very important concession" to his position. Formerly I held the Hayekian position that past prices

automatically convey to all passive producers "all the knowledge that is relevant to their business decisions in a near-equilibrium world." Now I concede that "knowledge is a primary matter of individual entrepreneurial experience, hunches," and so forth. In saying so, Salerno misstates Hayek's position, and mine, on the role of knowledge in an adequately functioning economy. In his celebrated article of 1945, Hayek[8] explained why the decentralization of decisions is essential for using knowledge even of kinds that cannot be communicated by prices. As long-time students of the classics of Austrian economics, Salerno and I should concede each other a grasp of Hayek's seminal article. Misstatement of Hayek's and my positions draws still another red herring across the original issue of the supposed wedge between Mises and Hayek.

More than any other single passage in the three comments of 1996, the concluding paragraph of a footnote in Herbener[9] pushes, however unintentionally, against the bounds of academic propriety. It unavowedly shifts ground while attributing to the opponent a position he never held. According to Herbener, neither he nor Salerno nor Rothbard nor Mises "claim that the central planners do not face an information problem. The SRH [Salerno, Rothbard, and Herbener] claim is that Mises's calculation argument has more to it than the information problem. Yeager's claim [is] that it does not." Furthermore, Herbener begins his 1996 comment with this remarkable statement: "The view that Ludwig von Mises had more in mind in his calculation critique of socialism than the Hayekian knowledge problem has recently been attacked by Leland Yeager."

I ask the fair-minded and attentive reader whether this is a correct statement of my position. I never denied that there might be more to the calculation problem than the knowledge aspect. I was challenging SRH to specify just what that other aspect was. More particularly, I was challenging them to justify their sharp distinction between the two (or more?) aspects. What nonknowledge aspect is so distinct and central that Hayek's elaboration of the knowledge aspect is diversionary and, to use Hoppe's words, "false, confusing, and irrelevant," "absurd," and "nonsensical"? I ask the impartial reader to find any passages in which Salerno, Hoppe, and Herbener have squarely faced my challenge. Have they not, instead, merely obfuscated their failure to do so?

Of course arithmetic enters into economic calculation.

People making business (and consumer) decisions use arithmetic all the time. Herbener makes much of people's not being able to add apples and oranges. Money prices are needed for calculation, for commensurability, for arithmetic, for comparing values and costs and, for recognizing gains and losses. Sure, all this is a standard part of the logic of the market and money. It is a standard part of the argument about why socialism could do nowhere near as well as capitalism in putting scattered knowledge to use. But none of this helps refute my refutation of a supposed sharp wedge between the positions of Mises and Hayek.

Herbener's points about incommensurate units (apples and oranges) are further symptomatic of a particular style of argument worth identifying so that readers can recognize it when it occurs. I am not aware of any generally accepted name for it, but having one would be useful. Anyway, it works this way. Make lots of valid statements as if they were highly relevant to the issue at hand and as if one's opponent in discussion were nevertheless ignorant of them. These valid points, in the present instance, are roughly of the nature of $2 + 2 = 4$, grass is green, demand curves slope downward, and private property is essential to a decently-functioning economy. Perhaps the unalert reader, after agreeing with valid (but diversionary) points for page after page, will get the impression that they demolish the opponent against whom they are ostensibly deployed. (Sometimes, though not in the present instance, this style of argument carries a further twist: even though the facts and figures deployed are not really relevant, make them detailed, numerous, and recondite enough to foster the impression that the speaker or writer is a consummate expert on his topic.)

Not only on the socialist-calculation issue but on the other topics also, Salerno, Hoppe, and Herbener, like Rothbard before them, work to distinguish between Hayek's and Mises's positions. (I particularly have in mind articles on "dehomogenization" in various issues of this *Review*.) A reader not very familiar with Austrian economics might get the impression that Hayek-bashing is under way. Surely (or so I hope, anyway) no one wants to let this impression prevail.

I'll try to conclude what I hope is the entire debate in this *Review*. On any reasonable interpretation of exactly what calculation means in the debates over socialism, calculation is closely intertwined with the development and use of knowledge. One ill-serves Mises's reputation and ill-serves understanding of

momentous issues by trying to drive a wedge between Mises and Hayek, specifically, by imagining and overemphasizing (yet not specifying) some aspects or other of calculation crucially distinct from the knowledge aspects on which Hayek elaborated, all while disparaging Hayek's elaborations. A correct understanding of the socialist-calculation problem is important to economic theory, the history of economic thought, twentieth-century economic history, and future policymaking. I hope that we respectful students of Mises, Hayek, Rothbard, and other great Austrian economists can subordinate polemics among ourselves and can collaborate in achieving and spreading this correct understanding.

Leland B. Yeager is professor emeritus at Auburn University. He thanks Paul Cwik, Roger Garrison, and Roger Koppl for discussions and other assistance. He thanks Israel Kirzner for an advance copy of "Reflections on the Misesian Legacy in Economics," a highly pertinent paper that now has appeared in the *Review of Austrian Economics* 9, no. 2 (1996): 143–54.

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[1] Jeffrey M. Herbener, "Calculation and the Question of Arithmetic," *Review of Austrian Economics 9, no*. 1 (1996): 151–62; Hans-Hermann Hoppe, "Socialism: A Property or Knowledge Problem?" *Review of Austrian Economics* 9, no. 1 (1996): 143–49; and Joseph T. Salerno, "A Final Word: Calculation, Knowledge, and Appraisement," *Review of Austrian Economics* 9, no. 1 (1996): 141–42.

[2] I am informed that these authors wrote their contributions separately and that Hoppe did not even have my "Rejoinder: Salerno on Calculation, Knowledge, and Appraisement," *Review of Austrian Economics* 9, no. 1 (1996): 137–39, in mind. Nevertheless, their comments, especially happening to appear together immediately following my "Rejoinder," foster an impression that, along with their substance, requires correction.

[3] Leland B. Yeager, "Mises and Hayek on Calculation and Knowledge," *Review of Austrian Economics* 7, no. 2 (1994): 93–109.

[4] Joseph T. Salerno, "Reply to Leland B. Yeager on 'Mises and Hayek on Calculation and Knowledge'," *Review of Austrian Economics* 7, no. 2 (1994): 111–15.

[5] Hoppe, “Socialism: A Property or Knowledge Problem?”: 143.

[6] Ibid.: 146.

[7] Ibid.: 144.

[8] Friedrich A. Hayek, “The Use of Knowledge in Society,” *American Economic Review* 35 (September 1945): 519–30. Reprinted in idem, *Individualism and Economic Order* (London: Routledge and Kegan Paul, 1949), pp. 77–91.

[9] Herbener, “Calculation and the Question of Arithmetic”: 158–59.

Book Reviews

Perfect Competition and the Transformation of Economics. By Frank M. Machovec. New York and London: Routledge, 1995

Professor Machovec of Walford College has written what might be called a monograph in the history of economic thought, dealing with the economic profession's adoption of the general equilibrium theory as the starting point of all economic analysis. He argues that this revolution, which took place in the 1920s, radically altered the way economists would come to view economic phenomena. The acceptance of this new "paradigm" meant the abandonment of specific ideas associated with classical economics.

The importance of this book is Machovec's documentation of how the adoption of empirical methodology leads to the abandonment of key classical concepts and leads to the adoption of an anti-market bias. "The classical description of the market process—a broad tapestry which explains much but provides no concrete mathematical predictions—came to be considered useless and thus was no longer defined as a legitimate theory in the sense of positive science" (p. 269). Having abandoned the view of the market as an ongoing process of resource allocation, the way was clear for the adoption of utopian and activist policies.

Machovec discusses anti-trust law and international trade as areas where unintended and disastrous results have also occurred as a result of the link between the methodology of the economists and their policy recommendations. Quoting Hahn, "it is the models that lead people to view the economic systems as they do" (p. 309).

International trade and development economics is another area where the knowledge and wisdom of classical economists have been ignored or abandoned, leading to specific policy recommendations which, when practiced, cause disastrous, unintended results. "We should not underestimate the damage wrought by Walras's entrepreneurless and, hence, non-market vision of the economy, a vision which has made intrusions by government appear efficacious in far more areas than would

otherwise be the case" (p. 305).

Those who have become dubious of the government's interference in the market will appreciate the insightful connection between the question of methodology and the type of government policies engendered by that methodology, the discussion of the intellectual history of the profession and the explanation of how the profession has come to its current state is one of the most interesting and useful portions of *Perfect Competition*.

The adoption of general-equilibrium theory has trained economists to look at problems in a certain narrow way. Professor Machovec defines five distinct areas where adoption of the perfect-competition model has had deleterious results: an explanation of price change, modeling and predictability, the re-definition of monopoly, and the dependence on central planning in international trade. Price change, and its significance, is a key classical concept which Machovec argues was abandoned as a result of the adoption of Walras's perfect-competition model. The classical economists viewed price changes as the result of entrepreneurial initiative in the way of new products, methods, and elimination of imperfect markets by arbitrage, etc. After the adoption of Walras's model, all prices were assumed to be at equilibrium and were changed only by exogenous forces outside normal market dynamics. This assumption led to the questionable attempt to mathematically determine production levels. An additional notion of the classical economists which the neoclassical economists abandoned was the important role of the entrepreneur as the innovative force driving the economy, and the idea of the consumer as the ultimate and final source and authority for deciding through the price system which goods get produced and in what quantity.

The acceptance of Walras's equilibrium theory leads logically to the now-common practice of modeling and prediction. "For the classical case, in which information is revealed incrementally, the equilibrium price vector is solely an *ex post* phenomenon and hence cannot be determined (calculated) *ex ante*. . . . The culmination of such a process is a set of equilibrium prices and quantities *different* from those yielded mathematically by Walras's system of simultaneous equations, yet Walras erroneously believed that his model's prices were identical to the market's equilibrium prices"(p. 5).

The abandonment of the view of entrepreneurship as a benefit to society and the adoption of equilibrium, Machovec

argues, redefined the role of the entrepreneur as harmful under the static models of the neoclassical economists. Machovec shows the effect this has had on anti-trust policy in the way of Supreme Court decisions. Machovec echoes Coase: "As static neoclassical models became understood by jurists, business practices whose efficiency rationales were subtle—and hence not easily explicated by defense teams—were routinely yet incorrectly imparted to the existence of monopoly power. More harm than good has flowed from the inflexible application of the perfect-competition benchmark as 'the measure against which particular [anti-trust] policy and actions are first tested'" (p. 201). The classical economists viewed the market as a self-regulating mechanism against monopoly if there was ease of entry. The substitution of a different criterion as opposed to the "ease of entry" of the classical economists led to anti-monopoly legislation which was not in the best interest of the consumer. He quotes Baumol and Ordover, "Anti-trust can and probably does serve as a vehicle for rent seeking and as a means to prevent 'unfair competition,' meaning any competition that threatens to make life uncomfortable for rivals . . . To this extent, rather than promoting static efficiency, anti-trust legislation may serve to undermine it" (p. 228). The result has been anti-trust legislation which has failed to encourage competition to the detriment of the consumer.

In the same vein of anti-trust legislation, Machovec details how similar counter-productive policies have resulted in the area of international trade, and shows the important connection between methodology and policy. The overall result of Walras's influence has been an anti-free-market prejudice and a statist activist government bias. One can only conclude that the understanding of the classical economists has to some extent become almost a body of lost knowledge. The frightful idea lurking in the background from all this is that the economics profession is filled with PhDs who view their profession as the exercise of the correct "test" from their "toolkit" but actually have little conceptual understanding of economics.

On balance, despite the excellent scholarship and informative history, the book is not without its flaws. *Perfect Competition* was sponsored in part by the Austrian economics program at New York University, and one can no doubt safely assume a fair amount of familiarity on the part of the author with the works of Carl Menger and the methodological positions of the Austrian economists. Although Professor Machovec's

criticisms may ring with resonance in the hearts of Austrian economists, it would be a mistake to count Professor Machovec among the members of the Austrian school. He explains, "As one who holds undergraduate degrees in mathematics and meteorology, I am an equivocal supporter of the value of formalism in economics. I fully concur with Jevons's observation that in a discipline devoted to the study of small marginal effects, the widespread employment of calculus is inescapable" (p. 9). We do not have here an author who is calling for a fundamental change in the method and philosophical foundations of the discipline, but rather a reform in the de-emphasis of general-equilibrium theory. "My purpose, however, is not to criticize the abstract nature of perfect competition nor the model's frequent employment as an analytical tool. I readily concede that equilibrium models play a cardinal irreplaceable role in the study of the process of competition. My primary objective is to demonstrate that the adoption of perfect competition as the benchmark—and the employment of static models as the only acceptable engines of market analysis—combined to transform . . . economics!" (p. 9).

The author fails to follow the force of his argument to its compelling conclusion: the rejection of empirical methodology. He is content instead to merely suggest a de-emphasis of the perfect-competition theory. But this recommendation is inconsistent, and fails to deal directly with the fundamental flaw and problem of the economics discipline and that is the adoption of the method of physics on a foundation of positivist presuppositions.

Only the Austrian school of economics has carried on the methodological tradition of the founders of economics. The problems and waning prestige of the economics profession will continue until the Austrian methodological position is once again the accepted orthodoxy.

Perfect Competition and the Transformation of Economics, despite this flaw, is a valuable and worthwhile contribution to understanding the history of economic thought and will be enjoyed for its informed insights and trenchant analysis.

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Pop Internationalism. By Paul Krugman. Boston: MIT Press, 1996

Paul Krugman owes much of his considerable reputation as an economic theorist to "new trade theory." In contrast to traditional trade theory, supporters of the new view deny that free trade is always advantageous: the exceptions largely concern cases of "increasing returns." "It's obvious that the new trade theory introduces the possibility that government action can, in effect, *create* comparative advantage" (p. 110). Government action does this, one gathers, by promoting large-scale production in industries where increasing returns obtain. In pursuit of this end, tariffs may be a useful tool; such is the new wisdom of "strategic trade policy."

Krugman does not renounce the new theory—far from it. With forthright immodesty, he declares the new "sophisticated" theory, of which he was a principal developer, "part of the mainstream of economic analysis" (p. 109). But he dislikes intensely the use that has been made of the new theory by writers he damns as incompetent and economically illiterate.

The writers who arouse our author's ire include Robert Reich, currently Secretary of Labor, and the MIT economist Lester Thurow. They wrongly think of international trade as if it were a "zero-sum" game, to use a phrase from the title of a best-selling book by Thurow. In this view, one party's gain in trade is another's loss. Trade becomes an instrument of economic warfare.

In fact, of course, the situation is quite otherwise. Trade does not take place unless both parties expect to benefit from it; unlike war, the gain to one party does not depend on the loss of another. Further, trade can still be advantageous even if one country is, in all goods traded, inferior in productivity to its trading partner. As David Ricardo long ago demonstrated, "a country will always find a range of goods in which it has a 'comparative advantage'" (p. 91).

Proponents of strategic trade make a great deal of fuss about the supposed need for international "competitiveness." This elusive concept appears to consist, in large part, of a nation's having a "favorable" balance of trade. Krugman isn't buying: "Both in theory and practice a trade surplus may be a sign of national weakness, a deficit a sign of strength" (p. 6). Contrary to widespread belief, deteriorating terms of trade have not been "a

major drag on the U.S. standard of living" (p. 8).

Wherein lies the fundamental fallacy of the strategic traders? They think of nations as if they were rival firms in competition for a market. But "countries do not compete with each other the way corporations do . . . the major industrial countries, while they sell products that compete with each other, are also each other's main export markets and each other's main suppliers of useful imports" (p. 9). International trade should not be viewed, in a parody of Clausewitz, as "the continuation of war by other means," our new traders to the contrary notwithstanding.

Krugman's case may in one respect elicit surprise. As he himself is at pains to stress, he is saying nothing new. He merely restates and reiterates commonplaces of economic analysis. Here precisely arises the element of surprise. Why do such elementary points require restatement in this day and age? Surely authors of the stature of Reich have already taken account of them.

In fact they have not. Krugman mercilessly exposes many supposed eminences as ignoramuses of the first order. He comments, for example, on a passage on international trade by the Yale historian Paul Kennedy as follows: "did you find the quotation from Professor Kennedy hysterically funny. . . . Kennedy feels that he is in a position to discuss the idea of comparative advantage . . . *without understanding the idea*" (p. 86). Readers will discover that this hapless historian is but one of many offenders.

Students of Austrian theory will be reminded of a case that closely resembles the situation Krugman has depicted. After Mises argued that economic calculation under socialism is impossible, sophisticated economists, notably Oskar Lange and Abba Lerner, devised models of so-called market socialism which, they claimed, *could* accomplish the task of calculation.

In my view, Mises and Hayek more than adequately dispatched these models. But, regardless of how one judges the dispute, there is another point that demands attention; and here is where the parallel with Krugman's case arises. The Lange-Lerner models were abstractions that bore no relation to actually existing socialist economics. Even if correct, they would have no bearing on the question, can socialism in the actual world solve the calculation problem?

Nevertheless, socialists acted as if the mere existence of these models sufficed to dispose of the calculation problem. In like manner, the strategic traders take the very limited claims of the new trade theory to have demolished altogether the basic

Ricardian case for free trade. The plans of Reich and company are not correctly derived from the new theory. Nevertheless the mere existence of the new account somehow is supposed to redound to their benefit.

Readers who do not like loose ends may be inclined to raise a further point. Just as the Lange-Lerner models do not succeed in answering Mises (or so Austrians would claim), is there likewise a fallacy in the arguments of Krugman and his fellow new traders that the case for free trade is in theory flawed?

To answer this far exceeds my competence; and Krugman's devastating ripostes should be sufficient warning against any temptation to stray across disciplinary boundaries. But I shall venture one remark about the normative implications of the new theory, which our author acknowledges "are much more controversial" (p. 110) than the descriptive part of the theory. Krugman informs us that "clever government intervention cannot only shift the pattern of comparative advantage, but also do so in a way that raises the intervening country's real income at the expense of other countries" (p. 110). Those who have taken their Mises and Rothbard to heart may wonder why "a country's real income" has any place at all in a sound welfare economics.

Throughout his book, Krugman has been concerned to assert the prerogatives of economic theory. Those not expert in these deep matters should not presume to comment on them. Our author's claim to authority rests on indisputable credentials; but at one point, I venture to suggest, he has gone beyond his area of specialized knowledge.

In defense of the Nafta Agreement, Krugman admits that Nafta supporters "considerably glamorize the reality" of the treaty's supposed economic benefits. In fact "NAFTA will . . . produce only a small gain in overall U.S. real income" (p. 157).

Why, then, does Krugman wax enthusiastic over the arrangement? For him, Nafta is primarily a foreign policy issue; it is needed to promote the stability of the Mexican government. "For the United States, this agreement is not about jobs. It is not even about economic efficiency and growth. It is about doing what one can to help a friendly government succeed" (p. 165). If Krugman is right about Nafta's lack of economic impact, then he exits the scene as an expert on the treaty's merits. *Prima facie*, his opinions on foreign policy merit no more consideration than those of any other layman. Those less inclined than our author to view the Salinas government as a fit object of idolatry need here pay him no heed.

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The Road From Serfdom: The Economic and Political Consequences of the End of Communism. By Robert Skidelsky. Allen Lane: Penguin Press, 1996

If Robert Skidelsky is right, the twentieth century has been dominated by a conflict that ought never to have happened. Throughout most of the century, collectivism was the order of the day. (By a collectivist society, Skidelsky means "one in which state purposes have replaced private purposes in shaping economic and social life" [p. 17]). No longer, American and European intellectuals held, could a nation's economy be entrusted to private enterprise. The immense efforts at national unity manifest during the world wars, not to mention the glories of Bolshevism, demonstrated what state direction could achieve. Only since the 1980s has this roseate view of state power encountered attacks among the self-styled intellectual elite.

As Skidelsky fully recognizes, collectivism from the first was a false path. "Enrico Barone (1908) and Ludwig von Mises (1920) had argued that efficient Communism was an impossible dream because if all capital were publicly owned there would be no market for capital goods in terms of which competing investment projects could be properly costed" (p. 80). Incidentally, Skidelsky deserves credit for defying the legend, propagated by Schumpeter, that Barone had refuted Mises in advance of his 1920 article.

True enough, not all collectivism takes the explicit form of socialism. But, as Mises also demonstrated, intervention offers no "third way" between capitalism and a fully-collectivized economy. Interference with the market inevitably fails to secure the results its advocates promise. Faced with failure, the government must either retreat to the market or press on with further intervention, in a futile effort to repair the damage. If the government endeavors to pursue the interventionist "cure" for the selfsame disease, the result eventually will be socialism.

But if the socialist calculation argument is right, how did socialism manage to survive in Soviet Russia for 70 years, apparently confounding its critics? Skidelsky appeals in reply to a surprising source, John Maynard Keynes. Our author, an outstanding biographer of Keynes, has pursued for many years the quixotic project of proving Keynes to be a classical liberal. In the course of his futile quest, Skidelsky has succeeded in

uncovering some genuine insights in Keynes's work.

Concerning the Soviet economy, Keynes, in his *Short View of Soviet Russia* (1925) notes that "[e]xploitation was accomplished by the state's procurement policy. Their import and export monopoly and virtual control of industrial output enabled 'the authorities to maintain relative prices at levels highly disadvantageous to the peasants. They buy his wheat from him much below the world price, and they sell him textile and other manufactured goods appreciably above the world price'" (p. 51, quoting Keynes).

Thus the Soviet state, established in protest against alleged capitalist exploitation, maintained itself precisely through exploiting the peasants. By this means, and other types of predation, the Soviet government staved off, though it could not ultimately escape, the disaster foretold by Mises. Though the Soviet economy operated at a low level of efficiency, it did, after all, function, and this was enough for those enamored of planning. The features of the Soviet economy that Keynes identified "were to form the core of the economic policies of most developing countries in the 1970s" (p. 51).

But here an objection is likely to strike the reader. If a socialist economy can limp along for a period of time, what is so good about that? How can anyone rationally prefer planning to the abundance a free economy provides? Skidelsky, adopting the term of Sir John Hicks, argues that modern collectivist regimes have reverted to the "revenue state" of pre-capitalist times. In these, "the wealth of subjects and foreigners alike was considered fit for rulers to command at will, for their greater power, splendor, and prestige" (p. 27). Readers of libertarian bent will not fail to note the parallel between Skidelsky's and Hicks's claim and the Oppenheimer—Nock view of the state as predator.

But more than the self-interest of predators is required to explain the sway of collectivism. Skidelsky assigns much of the blame to leftist intellectuals, entranced by the prospect of reconstructing society to their liking. "Collectivism was an intellectual construction . . . largely created by a new class of social philosophers, engineers and scientists, often made up of marginal academics, who saw themselves as a rational directing elite 'above class'" (p. 39).

Skidelsky has expertly diagnosed the key economic problem of our time, and the remedy appears obvious. If collectivism, doomed to inefficiency, exists principally to benefit exploiters, must it not at once be replaced with a complete system of free

enterprise capitalism? Since socialism cannot work, and interventionism leads to socialism, what other choice remains?

Unfortunately, for our author, matters are not so simple. He himself, it transpires, accepts a considerable measure of interventionism. “The failure of collectivism everywhere led to the mistaken view that the state could do almost nothing and the market almost everything. Yet the theory of the liberal state is built on the concept of market failure. We need states because there are missing or failing markets” (p. 187). Like almost all economists save Austrians, Skidelsky thinks that the free market cannot efficiently produce public goods.

Further, like his master Keynes, our author contends that government action is needed to remedy the vagaries of the business cycle. “Economies can linger in a situation of ‘underemployment’ for a long time till something turns up which causes entrepreneurs to regain their optimism” (p. 73). Left to itself, the market falls victim to irrational changes of mood by speculators.

This is not the time or place to examine fully Skidelsky’s case against the market. I confine myself to two observations. If, as our author thinks, the free market cannot supply public goods, how can it be that “public goods theory gives an elegant explanation of the social contract” (pp. 21–22)? Why would not the same public-goods problem block a social contract to establish a state? And if resources are misallocated owing to “inescapable uncertainty,” how can Keynes be said to have “established the possibility of ‘underemployment equilibrium’” (p. 73)? Surely what is here described is a state of disequilibrium.

These observations of course do not suffice to overturn Skidelsky’s indictment of the market. But this is not the key point at issue. For suppose Skidelsky is right. Then exactly the case against intervention he has elsewhere in the book so eloquently advanced tells against his own proposals. The interventions he favors will necessitate more and more supplementary interventions, and the result will be the collectivism Skidelsky deplores.

Our author would no doubt dissent. The interventions he supports, as opposed to those the collectivists demand, are strictly limited. But I doubt that this contention can be sustained. The category “public goods,” in his usage, is not well-defined, and a virtually-unlimited statist agenda can be squeezed within its confines. And collectivists have been quick to seize upon

Keynesian fiscal policy to advance their cause.

Skidelsky's devotion to a free society cannot be doubted, but his attempt to discover in Keynes the savior of capitalism is a *fata morgana*. In the pursuit of his case, though, our author explores an issue that Austrians will find of major importance. As the tide of his book suggests, Skidelsky has been much influenced by Hayek; and he attempts to show that his own support of a "mixed" capitalist system echoes Hayek's views.

In this endeavor, he achieves considerable success. During World War II, Hayek endorsed Keynes's plan for "progressive taxes and deferred pay" (p. 74). Further, in *The Road to Serfdom*, Hayek "was careful not to identify economic liberalism with laissez-faire—a mistake made by liberal thinkers in the nineteenth century. . . . Hayek himself thought that a world government would be needed to entrench economic liberalism internationally" (pp. 81–82). Connoisseurs of the Mises—Hayek dehomogenization dispute, take note!

Whatever one's disagreements with our author's view of the market, one can only admire his grasp of the details of the collectivization debate, and his ability to illuminate historical events by means of economic theory. His account of the debate between Jeffrey Sachs and John Gray on "shock therapy" (pp. 167–73) is especially valuable.

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Articles

The Option Clause in Free-Banking Theory and History: A Reappraisal

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Banks under a free-banking system, like banks with fractional reserves under any other system, are susceptible to runs. Free-banking theorists maintain that the option clause would be one effective means of dealing with runs on banks. The option clause, printed on banknotes, would allow banks to defer redemption of their notes provided they pay interest for the period of deferment. The clause would enable banks to protect their liquidity in the face of an unexpected increase in demands for redemption, and allow them time to adjust their portfolios. To make the clause notes acceptable to the public, banks would likely promise to pay interest at a rate higher than the market rate for the period of deferment. This penalty rate would dissuade banks from misusing the option clause. The clause therefore could serve as a crucial stabilizing mechanism for a free-banking system.

Historically, eighteenth- and nineteenth-century Scotland (White 1984), Sweden (Jonung 1985), and Canada (Schuler 1988) serve as examples of free-banking systems that have employed option clauses. Among the three, the Scottish free-banking experience furnishes the most detailed information on the use of the clause (Dowd 1988, 1991; Gherity 1995). In Scotland, the clause was first adopted in 1730 by the Bank of Scotland to protect itself against "note duels" initiated by its new rival, the Royal Bank of Scotland. It was, however, outlawed in 1765.[1] Despite its short duration, the Scottish experience is generally cited as an illustrious example of the operation of the option clause in a free-banking system.

Modern free-banking theorists who view the overall Scottish experience as exemplary, consider the option clause a desirable

market solution to the problem of unexpected demands for redemption (White 1984, pp. 28–29; Selgin 1988, pp. 161–62; Selgin and White 1994, p. 1726; Dowd 1988). Cowen and Kroszner (1989) and Sechrest (1993, pp. 79–93; 1988) have been skeptical in interpreting the Scottish experience as that of "genuine" free banking.[2] They do, however, share with the previous group the view that the option clause was an important, effective, and desirable innovation. There seems to be a consensus among the free-banking theorists on both issues: one, of the historical usefulness of the option clause in protecting the Scottish banks from runs and "note duels," and two, of its desirability in any future free-banking system as a stabilizing mechanism.[3]

Despite the consensus, a description of the exact working of the option clause either theoretically (logically) or historically is missing. A focus on the mechanics of the option clause raises doubts about its alleged historical usefulness and its desirability in any future free-banking system. When one tries to work out what exactly happens after a bank invokes the clause—the mechanics of the clause—several questions arise that the proponents have so far left largely unanswered. How would a bank distinguish notes presented for redemption from ones that were not? Would invocation of the clause apply only to notes or also to deposits? Would the bank refuse conversion of deposits into notes? If the bank allows customers to convert their deposits into notes, wouldn't all customers convert to earn the penalty rate of interest? Would the bank then be compelled to pay the penalty rate on all its notes and deposits? In order to earn that rate, people would have to hold on to the notes and deposits. What would they then use to carry out transactions?

An understanding of the mechanics of the option clause brings the costs of using it into sharper focus. These costs must then be balanced against the benefits of the clause.

Benefits of the Option Clause

The origin of the option clause points directly to its use in making "note duels" ineffective, thus largely eliminating a potential source of instability in a free-banking system. When a rival bank presents large amounts of notes for redemption, exercise of the clause would foil its attack. Moreover, anticipation of its use would prevent any rival bank from even attempting a note duel.

The clause elicits a stabilizing response not just from rival banks but also from the public. Dowd (1991, p. 763) argues that the clause would "reduce the pressure on the public to participate in bank runs, and make bank runs both less likely and less damaging (to everyone concerned) if they do occur." Without the clause, any strong fear of a bank run would induce noteholders to start a run as they would suffer losses by not being first in line. The option clause, in fact, gives "an interest 'bonus' for *not* being first in line" (Cowen and Kroszner 1989, p. 5). If others demand redemption and force the bank to invoke the clause, the noteholders back in line would earn a penalty rate of interest. "Hence, the option clause helps to convert speculative demands for redemption from the destabilizing force they are under full convertibility to a stabilizing force that protects the banks' reserves when they are run down" (Dowd 1991, p. 764).

By aiding individual banks in handling runs on their base money, the option clause also contains a bank run from spreading to other banks—the contagion effect. Banks' exercise of the clause prevents any system-wide liquidity crisis; bank runs do not turn into banking panics. The clause therefore diminishes the need for a lender of last resort.

Use of the clause also strengthens the bank's liquidity position by a process that has been overlooked in the literature. Notes issued by the bank that has invoked the clause would bear a penalty rate of interest. But given the difficulties in calculating interest at each transaction, those notes would not circulate freely as media of exchange. People would hold on to those notes to earn interest and the bank would enjoy reduced demands on its reserves. The bank would also experience a more favorable clearing against other banks at the clearinghouse, since its notes would be held and not passed on to the customers of its rival banks. Notes of the rival banks would be in use as before, so the bank would acquire more than the usual quantity of them. By redeeming those notes, it would be able to acquire specie from other banks in the system. This would help strengthen the bank's liquidity position.

Henry Meulen (1934, pp. 77–81) argued that the use of the option clause would lead to more efficient financial intermediation by the banking system. The clause would allow banks to replace the specie in circulation by paper, and would enable banks to further expand credit by releasing funds tied up in reserves.[4] By reducing the threat of sudden demands for redemption, the clause would permit banks to hold

proportionately less specie, or to expand their liabilities proportionately more.

Dowd (1991) contends that the clause plays a stabilizing role in the market for "gold bills," which are promises to pay gold in the future. Banks would initially demand gold on the spot market to meet the large redemption demands.

> As the demand for spot gold continues to rise, the price of [gold] bills would fall to encourage holders to lend it and to discourage spot demands. . . . If it continued to fall and banks had the option clause, there would come a threshold point at which banks would suspend convertibility. The falling price of bills implies a rising gold interest rate, and the banks would suspend when that interest rate began to increase beyond the interest rate they would have to pay if they suspended the convertibility. Once that point has been passed, the banks could make a profit by suspending and effectively borrowing from the public at a fixed interest rate (i.e., the compensatory rate they would have to pay to noteholders), and then lending out their gold reserves. The public would be able to calculate when the banks would intervene, and rational speculators would appreciate that this intervention would almost certainly stop the price of gold bills from falling further. . . . [T]he banks' anticipated intervention when bill prices hit the threshold point ought to be more than sufficient to break the price fall. The bear speculators would almost certainly cut and run before the banks intervened, and the price of gold bills would fall to normal. It would be the threat of intervention, rather than the intervention itself, that would stabilize the market. This shows how effective option clauses can be even if they are never invoked. (Dowd 1991, pp. 764–65)

The effectiveness of the clause in reducing the threats of note duels, bank runs and panics, and adverse speculation in the market for gold bills leads Dowd (1993, p. 25) to consider the clause as one of three distinctive features of "a highly sophisticated free-banking system." He further maintains that the theoretical advantages of the clause are borne out by the Scottish free-banking experience before 1765 (1988, pp. 330–31). In their

survey article on free banking, Selgin and White (1994, p. 1729) conclude that the option clause is a "type of run-proofing" contractual arrangement.[5]

Incentives for Being First in the Redemption Line

The option clause, as the proponents maintain, allows for "orderly suspension" and lessens the need for noteholders to be first in line during any liquidity crisis. It actually pays an "interest bonus" for not being first in line. These incentives are crucial for the alleged benefits of the clause.

The incentives for not being first in line must be counterbalanced by two other concerns: one, the default risk, and two, the price of "waiting." Notes on which the clause is invoked would earn an interest compensation, but payment of the principal or the interest is not guaranteed. The clause does not promise that the bank would not declare bankruptcy during the deferment period. In fact, by invoking the clause, the bank has already signaled difficulties regarding its portfolio. Noteholders must then weigh the prospects of the bank's closure —the default risk—against the promise of interest payment.

Moreover, the whole of the interest payment is not a "bonus" to noteholders. They would have to wait for a period of time before receiving the specie. The price of "waiting" is generally positive—specie today is worth more than specie later. The market rate of interest can be taken as reflecting the price of waiting. So only that part of the interest payment that is more than the market rate of interest is a "bonus" to noteholders.

Noteholders would take into account the default risk and the price of waiting in deciding whether they want to be first or last in the redemption line. The sum of the default risk premium and the market rate of interest (the price of waiting) must be smaller than the interest rate offered on the clause, in order to keep noteholders away from the line. One could know the market rate of interest and the clause rate, but the default risk premium is determined subjectively by individual noteholders. In light of these issues, it is not obvious that the clause would always dissuade noteholders from ever being first in the redemption line.[6]

Mechanics of the Option Clause Use

The proponents of the clause do not describe what chain of

events actually occurs after it is invoked. To understand the mechanics of the clause or the logic of its operation, it is instructive to consult some actual experience of its use.

Banknotes Turn into Bonds

Consider first the actual text of a typical option clause used in Scotland: "pay the bearer one pound sterling on demand or, in the option of the Directors, one pound sixpence sterling at the end of six months after the day of the demand & for ascertaining the demand & option of the Directors, the accomptant & one of the tellers of the Bank are hereby ordered to mark & sign this note on the back of the same" (Checkland 1975, p. 67; printed on Bank of Scotland notes, capitalization adjusted). This description indicates that the typical deferment period on the clause was six months with an interest payment of 2.5 percent (annual rate of 5 percent). It also tells us that the notes on which the clause was invoked were marked and signed individually.

The text does not tell us whether the notes on which the clause was invoked were returned to the holders or kept by the bank and returned with interest at the end of the deferment period. In any case, the notes were effectively turned into interest-bearing bonds. "Calculating the gradual accrual of interest on a stamped note would entail transactions costs probably disqualifying it from continued use as an ordinary medium of exchange. . . . [T]he note would disappear as part of the active circulating medium" (Yeager 1993, p. 322). As argued earlier, this would help the bank achieve favorable clearing at the clearinghouse against other banks. By the same token, the noteholders would begin to use other banks' notes as media of exchange, and the invoking bank would lose its share in the market for banknotes. This could turn out to be a permanent loss if the bank's customers decide to continue with other banks' notes. The cure could become worse than the disease.

Meager (1993, p. 322) also raises concerns about the macroeconomic consequences of whether and how the sudden increase in the demand for other banks' notes would be met. Alternatively, one must consider the macroeconomic consequences of the sudden fall in the quantity of transaction media. Invocation of the clause turns banknotes into bonds, thus effectively removing them from their use as media of exchange.

Announcement Effect

A bank's exercise of the clause serves as a public announcement of its liquidity problems. In the old days, the announcement might not have spread too far from its headquarters, but today it would be an invitation to all its noteholders to make a run—a run, not to redeem their notes for specie ("note run," as conventionally labeled), but to convert the notes into bonds ("bond run"). They would run to get their notes "stamped" as quickly as possible to trigger the accrual of interest.

The bank can avoid this "bond run" if it simultaneously announces that *all* outstanding notes would accrue interest. The bank then converts its non-interest-bearing liability (notes) into an interest-bearing liability (bonds). In other words, the bank reborrows from its noteholders the full amount of its note liability at the penalty rate of interest. The size of this borrowing may or may not be optimal. The announcement effect of the use of the clause does not allow the bank flexibility in choosing the optimal amount on which to pay the penalty rate. It is compelled to pay that rate on all its outstanding notes. Yeager rightly observes:

> Modern conditions differ from those of eighteenth-century Scotland. Banks in a temporary liquidity bind have better opportunities for raising funds, as by borrowing on the interbank market, selling liquid securities, and attracting deposits by increasing the interest rate offered. The possibility of obtaining semi-forced loans from noteholders is less important than it once might have been. (1993, p. 322)

Note Runs Turn into Deposit Runs

A note run is an attempt to convert notes into specie, and a deposit run is an attempt to convert deposits into notes. In a free-banking system with private issue of notes, a deposit run generally does not present any significant problem; banks could easily change the form of their liability from deposits to notes. Ultimately what matters is the size, not the composition, of banks' liabilities.

A bank's use of the option clause to control a note run would most likely create a deposit run. The uncertainty about the bank's soundness that caused the note run would also infect its deposits, since people would not want to hold a suspected bank's

liabilities in any form. They could withdraw their deposits either by transferring them to other banks or by converting them into notes (which would then become bonds). The transfer of deposits to other banks would lead to severe adverse clearings at the clearinghouse, eventually increasing demands for specie by the other banks. The clause would probably not help the bank at the clearinghouse.[7] If people convert their deposits into notes, the bank would incur the costs of printing new notes and of "stamping" them. The bank could avoid these costs, and thereby the deposit run, by agreeing to pay the penalty rate on both notes and deposits.

The bank ultimately ends up suspending redemption of all its liabilities and paying a penalty rate on them. If the bank had borrowed funds from somewhere else, then it could possibly have met the crisis by reborrowing less than its total liabilities. However, the clause compels it to reborrow the full amount of its liabilities at a penalty interest rate. It is an all-or-nothing decision; the bank cannot make adjustments at the margin.

The proponents seem to think that after invoking the clause and thereby containing the crisis, the bank would continue to carry out its business as usual.[8] But the logic of the clause would actually require the bank to suspend its transaction services. This suspension puts its customers at great inconvenience by requiring them to find substitute media of exchange on short notice.

Payment of Interest on the Option-Clause Notes

How does a bank actually pay interest at the end of the deferment period on the notes on which it had invoked the clause? The Bank of Scotland was supposed to have paid interest to its noteholders at least three times for the suspensions in 1704, 1715, and 1728. Details on these payments are difficult to find. In the absence of branches, collection of the payment must have been a rather difficult task for noteholders, unless they were located relatively close to the Bank. The overall transaction costs in paying the interest seem substantial in comparison to the average amount of interest payment involved. The costs to the bank are of verifying the notes, counting them, and calculating interest; costs for the noteholders are of safe-keeping of the notes, and then of the travel to the bank. To put some reasonable numbers on this scenario, suppose that an average noteholder with £100 of notes would earn interest of £2.50 for a six-month

deferment at 5 percent. How favorably does this sum compare with the transaction costs?

Moreover, noteholders (or rather bond holders) would have little incentive to present notes (bonds) to collect interest payment. The notes earn above-market interest, and customers would certainly have found other transaction media during the deferment period. How would the bank "de-stamp" the notes? Why would the customers convert the bonds back into notes?

All these practical problems with the workings of the clause lead one to inquire about the details of its operation during its historic use. Modern free-banking literature is rather silent on the mechanics of the clause in Scotland; it merely asserts its historic usefulness. Was the clause ever actually used as intended by its modern proponents?

The Option Clause in Scotland

The Scottish parliament chartered the Bank of Scotland in 1695 with a legal monopoly in banking and note issue. The monopoly powers expired in 1716 and the business of banking became open to new entrants. The Royal Bank of Scotland acquired its charter in 1727, and from the first day both banks "opened a brisk duel in which the combatants used each other's notes as missiles" (Munro, quoted in White 1984, p. 25). The Royal Bank collected Bank of Scotland notes against its own and then presented them for redemption. The Old Bank—the Bank of Scotland—suspended convertibility for eight months to put its finances in order. During this time, allies of the Royal Bank brought a suit against the Old Bank for its failure to honor the promise to pay specie. "After much legal wrangling the note holder's right of 'summary diligence' or immediate payment on Bank of Scotland notes—a right stipulated in the bank's charter—was upheld" (White 1984, p. 26). In response to this new legal environment, the Old Bank for the first time inserted an option clause on its notes in 1730.

The innovation of the option clause was due to a legal and not an economic necessity. Beginning with the first run in 1704, the Old Bank had acted as if it had the option clause. The Bank suspended convertibility and "set an important precedent by announcing at the time of suspension that all notes would be granted 5 percent annual interest for the period of the delay. . . . The same policy was adopted for the eight-month suspension following a run during the civil unrest of 1715, and again for the

eight-month suspension of 1728" (White 1984, pp. 25–26; see also, Gherity 1995, p. 718). The introduction of the clause in 1730 simply legalized what had been a standard practice.

The legal-necessity interpretation of the origin of the option clause gets further support from the case of the Banking Company of Aberdeen. It was established in 1747 and did not include any option clause on its notes (Gherity 1995, pp. 717–18). It suffered a liquidity crisis as it had greatly expanded its note supply. As the bank suspended convertibility, a noteholder petitioned for "summary diligence." The court denied the petition on the grounds that summary diligence "was enforceable on bills but not on promissory notes such as bank notes" (White 1984, p. 28). The court pointed out that the charter of the Bank of Scotland specified summary diligence on its notes but that requirement did not automatically extend to other banks. In Scotland, according to the court, all banks but the Bank of Scotland could legally suspend convertibility without an option clause. This also explains why no other bank included the clause on its notes until the 1750s.

Gherity, who has consulted contemporary sources, states:

> From 1730 until 1752, the Bank of Scotland's notes were the only ones bearing the option clause, and it remained uninvoked. At that time, two banks that had recently been established in Glasgow, under attack by their Edinburgh rivals, added the clause to their notes where it *remained uninvoked* until 1756. . . . This was during the period of the Seven Years War, when higher taxes imposed to finance the war increased remittances to London. . . . Remittances abroad were further increased by an exceptionally poor harvest in 1756 leading to the importation of £200,000 of foreign grain. (1995, p. 716, emphasis added)

It was only because of the shocks of the Seven Years War and poor harvests that the option clause came into wider use. Even the Royal Bank of Scotland did not imitate its rival's insertion of the clause until the 1750s. This raises an important question: why did banks abstain from including the clause on their notes if it was useful and effective against unexpected demands for redemption?

Shortages of specie and coins in the early 1760s led to a "small note mania"; a large number of smaller banks began

issuing small-denomination notes with option clauses. Until then, "most, and perhaps all, of the Scottish banks included no option clause on their smallest notes" (Gherity 1995, p. 717). These "beggarly bankers," as Adam Smith called them, recklessly invoked option clauses, even on small-denomination notes, against routine redemption demands by the public. Mistrust of banknotes increased among the public and it demanded abolition of option clauses.

Outside the turbulent period of the late 1750s and early 1760s, there are few episodes of note duels or bank runs where the clause was actually used as supposed by its modern proponents. The first note duel was in 1727–28, but the Bank of Scotland successfully survived it without the clause. The second major battle was fought in the mid-1750s by the Edinburgh banks (the Bank of Scotland and the Royal Bank) against the Glasgow banks. White summarizes the episode: "The chartered [Edinburgh] banks then allegedly turned jointly to the tactic of note dueling, but their Glasgow rivals survived the assault by a series of *evasive maneuvers*" (1984, p. 28, emphasis added).

Scottish history indicates that these "evasive maneuvers" were actually used regularly and probably effectively. Adam Smith (1911 [1776], pp. 290–91), Meulen (1934, pp. 129–36), and Checkland (1975, pp. 184–86) provide ample evidence on Scottish banks paying only a fraction of the redemption demand in specie, questioning loyalty and patriotism of redemption demanders, using stalling tactics like checking each note and coin methodically, counting them deliberately slowly, giving tellers long and frequent breaks during counting, and at times, simply refusing to pay specie.[9] All these maneuvers together seem to have been effective in protecting banks' liquidity. It was better to raise "redemption costs" for noteholders by "evasive maneuvers" than to use the clause. Scottish banks certainly relied on them more commonly and frequently than they relied on the clause.

The Scottish experience leads one to conclude that the option clause "worked" as long as it was rarely included on notes or invoked by banks. When a large number of banks adopted and used it, the banks' customers demanded that it be abolished. Surprisingly, the Scottish banks, the alleged beneficiaries of the option clause, joined the public in demanding recision of the clause.[10] Gherity (1995, p. 722) states:

> By early 1763, the chartered banks had indicated to

> the government their willingness to give up the option clause in exchange for the exclusive right to issue bank notes in Scotland. . . . Shortly thereafter, the Glasgow bankers submitted a memorial to the Lord Privy Seal advocating the prohibition of the clause and had drafted a pamphlet or article, apparently for publication, blaming all of Scotland's monetary problems on the clause.[11]

It was argued earlier that the option clause not only helps individual banks during a run but also mitigates the contagion effect. A counterfactual test of the mitigating effect of the clause on the contagion effect came in 1772, after the option clause was banned in 1765. One of the major banks in Scotland, the Ayr Bank, collapsed in 1772. Its crash,

> spectacular as it was for its day, did not imperil the Scottish banking system as a whole. . . . Only those private banking houses involved with the Ayr Bank's circulation of bills were brought down. . . . Even this brief run was a new and unexpected circumstance, for nothing of the kind had "occurred" following the failure of one private bank in 1764 or another in 1769. (White 1984, p. 32)

The Scottish free-banking system apparently had mechanisms other than the option clause to effectively handle bank runs and contagion effects.

The option clause, as is evident, was never used by any of the Scottish banks to suspend convertibility of all its notes simultaneously, as is envisioned by its modern proponents. The clause was useful precisely to the extent that banks did not use it for a general suspension of convertibility. The clause allowed banks to *discriminate* among their customers on the basis of their motives for redemption demand. Banks gave specie to "bona fide" noteholders but refused it to "specie lifters," speculators, and agents of rival banks. Ironically, the Bank of Scotland acted as the option-clause proponents expected before the inclusion of the clause in 1730; it suspended convertibility of all its notes in 1704, 1715, and 1728.

Acceptance of the Option-Clause Notes

When the Bank of Scotland first offered notes with the option

clause in 1730, people readily accepted them. The rival Royal Bank's reminders that its notes were convertible on demand did not affect the demand for Bank of Scotland notes. This is usually interpreted as evidence that the option-clause notes would be generally acceptable to the public (see Dowd 1988, for example). [12] But is the inference valid? If a bank that has the clause printed on its notes offers a greater protection to its noteholders, as the modern proponents argue, then one would expect the public to switch from notes of the Royal Bank (without the clause) to those of the Old Bank (with the clause). This, however, did not happen. Notes of both banks were in such demand that the two banks were the largest in Scotland. One must conclude that the public did not hold notes of the Old Bank because of any perceived advantage of those notes over notes of the Royal Bank.

What then does explain the public's holding of Old Bank notes? Until the early 1750s, the Old Bank was the only major bank that had the option clause. The public accepted its notes because the clause did not really concern them one way or the other. The Old Bank had a long-standing reputation and the clout of a major bank with close ties to London, and it had faithfully paid interest compensation in earlier suspensions even without the clause. During those suspensions, Old Bank notes actually circulated at par. To its noteholders, the introduction of the clause was merely a legal issue, not an economic concern. When other banks without a good reputation adopted and used the clause in the early 1760s, the public demanded it be outlawed. Was the public rational in 1730 but irrational in the 1760s? Its response, one must conjecture, was based not on the presence or absence of the clause, but on the reputation and integrity of note-issuing banks.

The Scottish experience does not suggest that the option-clause notes were preferable or acceptable because of their advantages. The public, it seems, did not find much benefit in the option-clause notes of reputable banks, but suffered gravely at the hands of irreputable banks. The experience does tell us that during most of the period in which option clauses were legal, they were rarely invoked, and were never used as envisioned by the modern proponents of the clause.

The Option Clause and the Market for Specie

Dowd (1991, pp. 764–66) argues that the existence of the option clause results in a stabilizing speculation in the market for gold

bills. When the spot demand for gold increases, the price of gold bills falls, raising the gold interest rate. As the gold interest rate gets close to the interest rate specified in the clause, banks would invoke the clause and suspend convertibility. At a gold interest rate above the clause rate, banks would start "lending out their gold reserves." Banks, Dowd maintains, would become sellers of gold instead of buyers, and thus would prevent any further fall in the price of gold bills. The anticipation of a banks' intervention would limit the divergence of the interest rates and would stabilize the market for gold bills.

Dowd's argument is internally consistent. One must wonder, though, how banks would become sellers instead of buyers of gold. The price of gold bills begins to fall initially precisely *because* of the increased demand for gold by banks to meet their redemption needs. Whether the increased demand for gold by a bank would lower the price of gold bills depends on the size of the bank's demand *vis-à-vis* the size of the market for gold. A single bank's demand for gold is unlikely to raise the gold interest rate above the option-clause rate. If the whole banking system were facing a run, suspension of convertibility would dampen the immediate demand for gold. Even if the gold interest rate had risen above the option-clause rate before the suspension, it is hard to understand why banks would become net sellers of gold after the suspension. To whom would they be selling gold?

One is obliged to question this whole framework of analysis. It is historically accurate to think in terms of gold bills and gold interest rate, but one doubts whether that framework is relevant for any future free-banking system or the current free-banking theory. It seems more useful to think in terms of the market for gold and the market for loanable funds in exact parallel with banks' increased demand for gold to meet redemptions and for funds to purchase gold. Banks could sell their securities or borrow directly on the market, both of which would raise market rates of interest (not just the gold interest rate).[13] If market rates of interest rise above the clause rate, banks would most likely invoke the clause. In this framework, suspension of convertibility does not make banks net sellers of gold; rather it makes them less urgent demanders of gold and funds to purchase gold.

Potential Misuses of the Option Clause

A bank could invoke the option clause to protect itself not only

against temporary illiquidity but also against insolvency. It could defer redemption to “buy time” and invest in risky but more profitable assets to rescue itself from insolvency.[14] How could noteholders protect themselves against this type of misuse of the clause? Dowd (1991, p. 767) suggests that “if potential noteholders felt that this was a sufficiently serious danger, they could simply refuse to accept the notes, and the banks would have to continue providing fully convertible notes instead.” This response begs the question. A noteholder is not choosing between notes with and without the clause, but has already chosen the option-clause notes. The question now is about distinguishing proper from improper use of the clause by banks. How does a noteholder differentiate between illiquidity and potential insolvency of a bank?

Dowd (1991) does suggest a solution: The bank’s shareholders accept “extended liability” whenever the clause is invoked. The acceptance of “extended liability” would indicate that the bank does not face insolvency, and would thereby calm the wary noteholders. This solution demands too much from shareholders in order to make noteholders accept the clause. If shareholders are willing to accept “extended liability,” and are able to handle the “principal-agent problem” with banks’ managers, then they would be far better off by offering “extended liability” generally, and thus providing an overall competitive advantage to their bank.

Difficulties in differentiating situations of illiquidity and insolvency necessitate a more transparent clause. Gorton (1985) explores the possibility of whether any suspension clause would be incentive compatible, that is, a bank would invoke the clause only when it is illiquid but not when it is insolvent. He designs a suspension clause that is incentive compatible by having independent verification of the bank’s portfolio. Because of verification costs, banks do not choose to suspend in situations of insolvency but only in those of illiquidity. The traditional option clause, however, does not include this type of verification. Nonetheless, Gorton’s analysis indicates that interventions by third parties who can verify the bank’s portfolio (clearing-houses, for example) would be more suitable than two-party contracts like the option clause.

Modifications of and Alternatives to the Option Clause

The difficulties with the clause, brought out by analyzing the mechanics of the clause, necessitate consideration of alternative mechanisms to protect banks against temporary liquidity crises. The viable and more effective modifications of the traditional option clause (the one suggested by its modern proponents) will be discussed and then some alternatives to the clause will be offered.

The traditional option clause focuses only on specie and banknotes and on banks and noteholders, and tries to solve the problem without involving any other party. As discussed earlier, a simple suspension of the convertibility of notes into specie does not solve the problem; it causes bond runs and deposit runs, and thwarts people's attempts to convert their notes and deposits into higher interest-bearing assets, and to transfer their deposits to other banks. A better way to deal with sudden large demands for redemption is not to suspend convertibility, but to offer more options to noteholders and to transfer the problem from its door —with hordes of poorly informed, clamoring customers—to a place where the bank is better able to negotiate and decide among its various alternatives.

In a bank run, customers of a bank are not particularly interested in specie but in avoiding capital losses. The bank should do everything possible to make it easy for its customers to avoid those losses. The bank could offer to convert its notes into notes of other banks that are convenient and acceptable to its customers. A better modification would be to promise conversion of its notes into transferable deposits with other reputable and convenient banks. There is no reason to limit these new types of option clauses to notes. They can apply this equally to deposits. Inclusion of deposits would diminish any chance of bond runs and deposit runs.

The modified option clause is a promise to convert any and all liabilities into any asset, other than specie, that the bank's customers desire. The modified clause may be labeled as the "comprehensive option clause." It does not suffer from the drawbacks of the traditional option clause. There is no need to mark and sign the notes, no need to worry about the transactions costs of paying interest at the end of the deferment period, and no inconvenience to noteholders of finding alternative media of exchange on short notice. The comprehensive option clause does not require noteholders to differentiate between banks' proper and improper use of the clause. Irrespective of the banks' intentions in using the clause, noteholders would be able to

protect themselves with little effort.

More importantly, by exchanging notes with those of other banks and by transferring deposits to them, the bank would divert the problem from its door to the clearinghouse. It would be easier and better for the bank to deal with the clearinghouse, other prominent banks, or finance companies rather than with large numbers of scantly informed and suspicious customers. The comprehensive option clause is also incentive-compatible in the sense of Gorton (1985). It necessitates intervention and verification by third parties to solve the problem of redemption between the bank and its customers.

The comprehensive clause would not have to be printed on notes; it could simply be included in the bank's charter. One may even view it not as a modification, but as an alternative to the traditional option clause. The necessity of third-party involvement makes it categorically different from the traditional clause, and it provides a more effective means to deal with liquidity crises.

A crucial element in the comprehensive clause is the clearing-house. Even under a mature free-banking system, noteholders and depositors would generally find it difficult to quickly distinguish between problems of illiquidity and insolvency confronting a bank. Reputable third parties could help customers distinguish between those two problems, and thereby provide an orderly resolution of the crises. Clearinghouses are obvious candidates since they are the most likely third parties to possess the necessary information about the bank in trouble. As Timberlake (1984) and Gorton and Mullineaux (1987) document, clearinghouses in the recent past have engaged in "the joint production of confidence" by providing guarantees, loans, and their own currencies (certificates). Clearinghouses, however, would not be the sole source of such information in a mature free-banking system. Bank-rating agencies which would render overall "soundness rating" of banks, or agencies rating banks' ability to redeem their liabilities—"liquidity rating"—would also provide independent information to the banks' customers.

The issue of liquidity crisis arises only in a system with directly convertible notes, convertible either on demand or with deferment. The alternative system of "indirect convertibility" obviously avoids the whole problem (Yeager 1985; Greenfield and Yeager 1983).

A Conjectural History of the Option Clause

Introduction of the option clause in eighteenth-century Scotland was a good initial response to unexpected, large increases in redemption demands. Until the turbulent years of the mid-1750s, the Bank of Scotland was the only major bank with the clause on its notes. The fact that rival banks did not use it and the public did not shy away from those rival banks strongly suggests that the clause was considered of little value by banks and the public. The modern proponents assume that after suspending convertibility of notes, the bank would be able to continue to provide its transaction services—notes and deposits of the bank would continue to be used as media of exchange. At least in Scotland, the clause was never used for general suspension of convertibility. As shown earlier, liabilities of the bank that invoked the clause would hardly stay in circulation. The little protection the clause provided to Scottish banks was because it allowed banks to discriminate among redemption demanders.

How would the clause have evolved if the free-banking system had been allowed to mature under laissez-faire? It would have become difficult for banks to invoke the clause discriminately. As more banks adopted the clause and as it came into use as envisioned by the modern proponents, the drawbacks that have been emphasized in this paper would have come into play. Banks would have looked for more viable alternatives and would have adopted any of the modified versions of the traditional clause, including ultimately, the comprehensive option clause. To implement the comprehensive clause, banks would have made prior arrangements and agreements with other banks and financial institutions. Such stipulated cooperation would have played an important role in the banks' efforts to earn the public's confidence. During a time of crisis, banks would ask their partners to publicly reiterate the commitments and such reiteration, or the lack thereof, would provide useful information to customers.

In discussing how banks in the United States prior to the War Between the States dealt with liquidity crises, Selgin (1993) points out that not only did banks agree to accept each other's notes at par, but that they also made agreements which involved

> provisions for regular note exchange with interest charged on accumulated balances in lieu of immediate settlement as well as stipulations limiting loan expansion for the duration of the restriction. In some cases new deposits were

> accepted on the understanding that the depositor could receive payment of checks or drafts in notes but not in specie, and merchants formally agreed to continue receiving bank notes at par. (p. 357)

A system with mutual commitments among individual banks certainly seems sustainable. But intense rivalry, moral hazard problems, difficulties in enforcing such commitments, and a fear of the emergence of a dominant bank would necessitate a move toward a joint responsibility of all banks in producing confidence.[15] Clearinghouses would then come to play an important independent role in mitigating temporary liquidity crises of their members. Guarantees and loan certificates by clearinghouses would prevent the aggravation of bank runs and banking panics.

Whether the laissez-faire evolution would have ultimately resulted in a system of indirect convertibility is an interesting question. The evolution of the traditional option clause into the comprehensive clause does suggest a way through which a system with direct convertibility could move toward one with indirect convertibility. The comprehensive clause allows banks to redeem their liabilities—notes and deposits—for other banks' liabilities or for any other financial asset that is acceptable to their customers. General acceptance of the practice of redeeming the banks' liabilities for other financial assets could become a first step toward the evolution of a banking system with indirect convertibility. An expanded role of independent clearinghouses in dealing with liquidity crises would help continue that evolution.

In conclusion, several drawbacks undermine the claim that the option clause is an effective and desirable mechanism for creating a stable free-banking system. Though it is important for fractional reserve banks to develop a means to tackle sudden demands for redemption, the traditional clause does not meet the challenge. Modifications of the traditional clause, clearinghouse guarantees and certificates, and a system with indirect convertibility seem to provide more suitable mechanisms and arrangements.

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[1] Even though the option clause was outlawed in 1765, the free-banking system in Scotland lasted until 1844.

[2] A list of skeptics should also include Rothbard (1988). But he neither discusses the option clause nor advocates free banking.

[3] A notable exception is Yeager (1993). In his review of Dowd’s *Laissez-Faire Banking*, Yeager raises concerns about the workings of the option clause. Gherity (1995) evaluates the Scottish experience with the option clause using contemporary magazines and newspapers. He does not deal with the logic of the operation of the option clause.

[4] One is struck by the similarities between Meulen (1934)

and Schumpeter (1955) on the role of bankers and credit creation in economic development.

[5] For their recent statement of support for the clause, see Selgin and White (1996, pp. 91–92).

[6] As will be discussed later, the option clause was rarely used to suspend convertibility of all notes as envisioned by its proponents. Banks used it selectively against particular redemption demanders. In that case, the public had the incentive to be first in line because that would start early accrual of interest.

[7] The literature is not clear about whether banks would be able to exercise the clause against other banks at the clearinghouse or whether they did so during the Scottish episode.

[8] In discussing the difference between a bank "holiday" and a limited "restriction" of the type of the option clause, Selgin (1993, p. 358) maintains that "a bank restriction permits the continued use of bank money—checks or notes—in payments, whereas a holiday shuts down the bank-money payments mechanism entirely."

[9] For more details and citations, see Sechrest (1993, pp. 87–88), Dowd (1988, pp. 328–29), and White (1984, pp. 29–31). Gherity (1995, p. 721) informs us that at times banks threatened to call in loans to people who made "unreasonable" demands for specie.

[10] Meulen blamed the "paternalistic attitude" of the government for the abolition of the option clause; in order to protect some "fools," the government sacrificed a great innovation in banking (1934, pp. 131ff). Boase charged "exaggerated assertions, fallacious inferences, and ridiculous fears" (quoted in White 1984, p. 30).

[11] Gherity (1995, pp. 722–24) details the different rationales that led the Edinburgh banks and the provincial (mainly Glasgow) banks to the same conclusion. Notes of the Edinburgh banks were the least suspected by the public since they were the oldest and the largest banks, they acted as the government's bank as taxes and disbursement were channeled through them, and they had the strongest ties with London. They were therefore ready to give up the option clause in exchange for monopoly in the issue of notes. Notes of the provincial banks generally suffered more distrust from the public, but more importantly, they were concerned that in times of crisis, the chartered banks would exercise the option clause and put more strain on their reserves. Some of the provincial banks actually

had made their notes payable in notes of the chartered banks. The latter, it seems, were acting as “bankers’ banks.” The provincial banks were more than happy to take away the right of the chartered banks to use the option clause. Incidently, these rationales of the banks seem to provide support for the thesis of Rothbard (1988) and Sechrest (1988) that the chartered banks acted as the “bankers’ banks” for the smaller banks in Scotland, and the Bank of England performed similarly for the chartered banks.

[12] The only question left, according to Dowd, is for banks and the public to figure out a mutually acceptable deferment period and interest compensation.

[13] A “fire sale” of securities to generate funds for the purchase of gold would lower their prices and raise the interest rate.

[14] One is reminded of “zombie” savings and loans of the 1980s.

[15] Goodhart (1988) elaborates on these types of arguments. His focus is on explaining the “evolution” of central banking, where the arguments do not completely succeed. His arguments nevertheless are relevant to the point that is being developed here.

In Defense of Fundamental Analysis: A Critique of the Efficient Market Hypothesis

Frank Shostak

It is widely held that financial asset markets always fully reflect all available and relevant information, and that adjustment to new information is virtually instantaneous.[1] This way of thinking is also known as the Efficient Market Hypothesis (EMH), and is closely linked with the Rational Expectations Hypothesis (REH), which postulates that market participants are at least as good at price forecasting as is any model that a financial market scholar can come up with, given the available information.[2] The view that everyone is as good a forecaster as any model implies that their forecasts do not display systematic biases. In other words, their forecasts are right on average.[3] According to the EMH, by using available information, all market participants arrive at "rational expectations" forecasts of future security returns, and these forecasts become fully reflected in the prices that are observed in financial markets. Changes in asset prices will occur on account of news which cannot be predicted in any systematic manner. In other words, asset prices respond only to the unexpected part of any news, since the expected part of the news is already embedded in prices. Thus, if the central bank raises interest rates by 0.5 percent, and if this action was anticipated by market participants, the effect of this anticipation will be manifested in asset prices prior to the central bank raising interest rates.

Therefore, when the central bank raises the interest rate by 0.5 percent, this increase will have no effect on asset prices. Should, however, the central bank raise interest rates by 1 percent, rather than the 0.5 percent expected by market participants, prices of financial assets will react to this increase.

The efficiency of the market means that the individual investor cannot outwit the market by trading on the basis of the available information. The implication of the EMH is destructive for fundamental analysis, for this means that analysis of past data is of little help since whatever information this analysis will

reveal is already contained in asset prices. Proponents of the EMH argue that if past data contains no information for the prediction of future prices, then it follows that there is no point in paying attention to fundamental analysis. A simple policy of random buying and holding will do the trick. One of the pioneers of the EMH who has popularized this framework is Burton G. Malkiel.

> The theory holds that the market appears to adjust so quickly to information about individual stocks and the economy as a whole that no technique of selecting a portfolio—neither technical nor fundamental analysis—can consistently outperform a strategy of simply buying and holding a diversified group of securities.[4]

Consequently, Malkiel argues that,

> A blindfolded monkey throwing darts at a newspaper's financial pages could select a portfolio that would do just as well as one carefully selected by the expert.[5]

Does the EMH Framework Make Sense?

The major problem with the EMH is that it assumes that all market participants arrive at a *rational expectations* forecast. This, however, means that all market participants have the same expectations about future securities returns. Yet, if participants are alike in the sense of having homogeneous expectations, then why should there be trade? After all, trade implies the existence of heterogeneous expectations. This is what bulls and bears are all about. A buyer expects a rise in the asset price while the seller expects a fall in the price. Even if we were to accept that modern technology enables all market participants equal access to news, there is still the issue of news interpretations. The EMH framework implies that market participants have the same knowledge. Forecasts of asset prices by market participants are clustered around the *true* value, with deviations from the *true* value randomly distributed, implying that profits or losses are random phenomena. It also means that since, on average, everybody knows the *true* intrinsic value, then no one will need to learn from past errors since these errors are random and therefore any learning will be futile. Yet, if every individual has

different knowledge, then this difference will have an effect on his forecast. A success or a failure in predicting asset prices will not be completely random, as the EMH suggests, but must also be attributed to each individual's knowledge. In the words of Hans-Hermann Hoppe,

> If everyone's knowledge were identical to everyone else's, no one would have to communicate at all. That men do communicate demonstrates that they must assume that their knowledge is not identical. [6]

Another major problem with the EMH framework is that it implies that any buy-and-hold strategy is as good as any other, and that there is no scope for entrepreneurial activity in financial markets. On this, E.C. Pasour, Jr., writes,

> Since the EMH is a version of the zero-profit theorem of competitive equilibrium in the conventional theory of the firm, it is argued that shortcomings of the EMH are similar to those of other long-run competitive theories that focus exclusively on equilibrium outcomes while ignoring the entrepreneurial market process that generated those outcomes.[7]

The EMH framework also gives the impression that the stock market can exist separately from the real world. However, the stock market doesn't have a *life of its own*. That is why an investment in stocks should be regarded as an investment in business as such, and not just as an investment in stocks. By becoming an investor in a business, an individual has engaged in an entrepreneurial activity. In other words, he has committed his capital with a view to supply the most urgent needs of consumers. This means that for an entrepreneur, the ultimate criteria for investing his capital is to employ it in those activities which will produce goods and services that are on the highest priority list of consumers. It is this striving to satisfy the most urgent needs of consumers that produces profits, and it is this alone that guides entrepreneurs. In this regard, Ludwig von Mises writes that

> [S]tock exchange transactions produce neither profits nor losses, but are only the consummation of

> profits and losses arising in trading and manufacturing. These profits and losses, the outgrowth of the buying public's approval or disapproval of the investments effected in the past, are made visible by the stock market. The turnover on the stock market does not affect the public. It is, on the contrary, the public's reaction to the mode in which investors arranged production activities that determines the price structure of the securities market. It is ultimately the consumers' attitude that makes some stocks rise, others drop. [8]

Is it valid to argue that past information is completely imbedded in prices and therefore of no consequence? After all, relevant information for participants in financial markets includes causes which trigger changes in real data. It is questionable whether the duration and the strength of effects of various causes can be discounted by the market participants. For instance, a market-anticipated lowering of interest rates by the Central Bank, while being regarded as old news and therefore not supposed to have real effects according to the EMH, will in fact set in motion the process of the boom-bust cycle. Also, various causes, once set in motion, initially only affect some individuals' real income. As time goes by, however, the effect of these causes spreads across a wider spectrum of individuals. Obviously, these changes in the real incomes of individuals will lead to changes in the relative prices of assets. To suggest, then, that somehow the market will quickly incorporate all future changes of various present causes without telling us how it is done is to evade the issue. It has to be realized that markets are comprised of individual investors who require time to understand the implications of various causes on real data and prices of financial assets. Even if a particular cause was anticipated by the market, that doesn't mean that it was understood and therefore discounted. It is hard to imagine that the effect of a particular cause which begins with a few individuals and then spreads over time across many individuals can be assessed and understood instantaneously. For this to be so, it would mean that market participants can immediately assess future consumers' responses and counter responses to a given cause. This, of course, must mean that market participants not only must know consumers' preferences but also how these preferences are going to change. However, consumer preferences

cannot be revealed before consumers have acted.

If one is to accept the EMH framework, and thus believe that the market is always in equilibrium, then there is no room left for any investment advisory services, just to take one example. Anyone who considers giving advice to investors must take disequilibrium—or for that matter inefficiency—for granted. The very existence of the consulting industry is a tacit denial of the EMH.

Are Profits Random Phenomena?

The proponents of the EMH claim that the main message of their framework is that excessive profits cannot be secured out of public information. They maintain that any successful method of making profits must ultimately be self-defeating. Against this background, some of the EMH proponents raise doubts as to the benefit of analysis of historical data to ascertain future direction of asset prices. In fact, these EMH proponents even maintain that an automaton or a dart-throwing chimpanzee can be a good substitute for entrepreneurial activity. In other words, what this approach suggests is passivity and resignation from an active search for opportunities.

Now, it is true that profits as such can never be a sustainable phenomenon. However, the reasons for this are not those presented by the EMH. Profit emerges once an entrepreneur discovers that the prices of certain factors are undervalued relative to the potential value of the products that these factors, once employed, could produce. By recognizing the discrepancy and doing something about it, an entrepreneur removes the discrepancy, i.e., eliminates the potential for a further profit. According to Murray N. Rothbard,

> Every entrepreneur, therefore, invests in a process because he expects to make a profit, i.e., because he believes that the market has underpriced and undercapitalized the factors in relation to their future rents.[9]

The recognition of the existence of potential profits means that an entrepreneur had particular knowledge that other people didn't have. Having this unique knowledge means that profits are not the outcome of random events, as the EMH suggests. For an entrepreneur to make profits, he must engage in planning and anticipate consumer preferences. Consequently, those

entrepreneurs who excel in their forecasting of consumers' future preferences will make profits.

Planning and research never guarantee that profit will be secured. Various unforeseen events can upset entrepreneurial forecasts. Errors which lead to losses in the market economy are an essential part of the navigational tools which direct the process of allocation of resources in an uncertain environment in line with what consumers dictate. Uncertainty is part of the human environment, and it forces individuals to adopt active positions, rather than resign to passivity, as implied by the EMH. The EMH framework views the act of investment as no different from casino gambling. In the words of Ludwig von Mises, however,

> A popular fallacy considers entrepreneurial profit a reward for risk taking. It looks upon the entrepreneur as a gambler who invests in a lottery after having weighed the favorable chances of winning a prize against the unfavorable chances of losing his stake. This opinion manifests itself most clearly in the description of stock exchange transactions as a sort of gambling.

Mises then suggests,

> Every word in this reasoning is false. The owner of capital does not choose between more risky, less risky, and safe investments. He is forced, by the very operation of the market economy, to invest his funds in such a way as to supply the most urgent needs of the consumers to the best possible extent.

Mises then adds,

> A capitalist never chooses that investment in which, according to his understanding of the future, the danger of losing his input is smallest. He chooses that investment in which he expects to make the highest possible profits.[10]

The EMH framework presents the stock market as a gambling place which is detached from the real world. However, as Mises suggests,

> The success or failure of the investment in preferred stock, bonds, debentures, mortgages, and other loans depends ultimately also on the same factors that determine success or failure of the venture capital invested. There is no such thing as independence of the vicissitudes of the market.[11]

Further to this,

> Stock speculation cannot undo past action and cannot change anything with regard to the limited convertibility of capital goods already in existence. What it can do is to prevent additional investment in branches and enterprises in which, according to the opinion of the speculators, it would be misplaced. It points the specific way for a tendency prevailing in the market economy, to expand profitable production ventures and to restrict the unprofitable. In this sense the stock exchange becomes simply the focal point of the market economy, the ultimate device to make the anticipated demand of the consumers supreme in the conduct of business.[12]

Contrary to the accepted way of thinking,

> Entrepreneurial profit is not a “reward” granted by the customer to the supplier who served him better than the sluggish routinist; it is the result of the eagerness of the buyers to outbid others who are equally anxious to acquire a share of the limited supply.[13]

The Validity of Statistical Verifications of EMH

The alleged correctness of the EMH framework rests on the extensive statistical tests that supposedly verified the validity of the EMH. These tests rest on the assumption that investment returns are serially independent, and that their probability distributions are constant through time. What is probability? The probability of an event is the proportion of times the event happens out of a large number of trials. For instance, the probability of obtaining heads when a coin is tossed is 50 percent. This does not mean that when a coin is tossed 10 times,

5 heads are always obtained. However, if the experiment is repeated a large number of times then it is likely that 50 percent will be obtained. The greater the number of throws, the nearer the approximation is likely to be.

Or say it has been established that in a particular area, the probability of wooden houses catching fire is .01. This means that on the basis of experience, on average, 1 percent of wooden houses will catch fire. This does not mean that this year or the following year the percentage of houses catching fire will be exactly 1 percent. The percentage might be 1 percent or not each year. However, over time, the average of these percentages will be 1 percent.

This information, in turn, can be converted into the cost of fire damages thereby establishing the case for insuring against the risk of fire. Owners of wooden houses might decide to pool their risk, i.e., spread the risk by setting up a fund. In other words, every owner of a wooden house will contribute according to a certain proportion to the total amount of money that is required in order to cover the damages of those owners whose houses will be damaged by the fire. Note that insurance against the fire risk can only take place because we know its probability distribution and because there are enough owners of wooden houses to spread the cost of fire damage among them so that the premium will not be excessive. In this regard, these owners of wooden houses are all members of a particular group or class that will be affected in a similar way by a phenomenon called fire. We know that, on average, 1 percent of the members of this group will be affected by fire. However, we don't know exactly who it will be. The important thing for insurance is that members of a group must be homogeneous as far as a particular phenomenon is concerned.

If, however, we are dealing with non-homogeneous unique cases, they all should be treated as different groups, and obviously the risk cannot be pooled, although we still can know the probability distribution of a concerned risk. In this regard, entrepreneurial activity should be regarded as uninsurable. It is unique and specific, and allows no probability distribution of this activity to be established. (As we have already seen, probability distribution rests on the assumption that we are dealing with a particular repeatable event. If however, an event is non-repeatable no probability distribution can be established.) Thus, the return on a particular investment is specific and unique. It has occurred as a result of a unique and non-repeatable

entrepreneurial activity. Profit occurs whenever an entrepreneur discovers that prices of certain factors are undervalued relative to the price of the final product. Once an entrepreneur acts upon this, he eliminates the potential for a further profit. For an entrepreneur to make another profit, he would have to be engaged in a different activity. Also, no entrepreneur can know what ideas he will have in the future.

As such, if entrepreneurial activities were repeatable with known probability distributions of returns, then we would not need entrepreneurs. After all, an entrepreneur is an individual who arranges his activities toward finding out consumers' preferences. These preferences, however, are never constant. One day consumers prefer a particular product, and another day shift their preferences toward other goods and services. This, of course, precludes any possibility of establishing a probability distribution. The assumption that such probability can be established as the EMH proponents maintain is an absurdity, for it describes not a world of human beings who exercise their freedom of choices, but machines that never change their preferences and which are subject to random errors and breakdowns of known types and characteristics. In the words of Mises,

> Entrepreneurs do not act as members of a class, but as individuals. No entrepreneur bothers a whit about the fate of the totality of the entrepreneurs. It is irrelevant to the individual entrepreneur what happens to other people whom theories, according to a certain characteristic, assign to the same class they assign him. In the living, perpetually changing market society there are always profits to be earned by efficient entrepreneurs.[14]

Statistical tests of the EMH that pretend that a probability distribution of returns on assets can be established are erroneous. These tests employ historical data of returns, and naively conclude that the average of these returns will be also relevant in the future. Thus, in year one, entrepreneurial activity yielded 10 percent return on investment. In year two the return was 15 percent. In year three it was 1 percent, and in year four it was 2 percent. The average of this distribution is 7 percent. What we have here is a historical average of returns. By no means, however, does it imply that we can establish a probability distribution on the same basis as one can establish for the risk of

fire, or for obtaining heads in tossing a coin. As such, every human activity is unique and cannot be analyzed in the same way that one would analyze objects. Consequently, historical data, misrepresented as a time series, is in fact, a display of non-homogeneous pieces of information. Each observation is a unique, non-repeatable event caused by a particular individual response. This, in turn, means that to make sense of historical data one must scrutinize them not by means of mathematical and statistical methods but by means of trying to grasp and understand how it emerged.

What is Behind Wild Swings in Asset Prices?

On October 19, 1987, the Dow Jones Industrial Average fell by 22 percent. Many followers of the EMH were perplexed. How could a drop of this magnitude in one day be rationalized by the EMH? Andrei Shleifer and Lawrence H. Summers wrote that,

> The stock in the efficient market hypothesis—at least as it has traditionally been formulated—crashed along with the rest of the market on October 19, 1987.[15]

Some other experts came to similar conclusions arguing that the October 1987 stock market crash that took place in a single day cannot be explained by news about fundamentals. This view was further supported by interviews carried out by Robert Shiller with traders who were active during the October crash.[16] Supporters of the EMH, however, argue that there were several pieces of important news that could have caused the crash. In early October, Congress threatened to impose a merger tax that would have made merger activity prohibitively expensive, and could well have ended the merger boom.[17] Also, Secretary of the Treasury James Baker had threatened in October to encourage a further fall in the price of the dollar, increasing risks for foreign investors, and thereby also scaring domestic investors.

Experts who felt that the EMH didn't adequately explain large price movements that last for months or even years latched onto new theories. The new theories offer amendments to the EMH, to allow for these large price movements, which are labeled bubbles.[18] These new theories permit the possibility that observed asset prices will not always be at their equilibrium. Most of the bubble theories attribute large price fluctuations to abnormal investor behavior, also labeled as irrational behavior.

The reason for this behavior, so they say, is psychological. Thus, according to the new theories, changing fashions, fads, and erratic and capricious shifts in investor sentiment could set in motion a bubble.[19] The attempt to explain large price fluctuations by means of sentiment presents investors as automatons who mechanically react to this sentiment. Investors' actions are, however, conscious and purposeful. It is not some mysterious sentiment that causes investors to generate sharp swings in prices that shift them out of equilibrium, but rather investors' conscious actions. How is this possible? In a free, unhampered market economy, entrepreneurial errors generate incentives for their corrections. Thus, all other things being equal, let us assume that too much capital was invested in the production of product A, and that too little capital was invested in the production of product B. The effect of the over-investment in the production of A is to depress its profits, because the excessive quantity of A can only be sold at prices that are low in relation to costs. The effect of under-investment in the production of B, on the other hand, will lift its price in relation to cost, and thus will raise its profit. Obviously, this will lead to withdrawing of capital from A and a channeling of it toward B, implying that if investment goes too far in one direction, and not far enough in another direction, this will set in motion counteracting forces of correction.[20] Further to this, Rothbard wrote that

> General economic theory teaches us that supply and demand always tend to be in equilibrium in the market, and that therefore prices of products as well as of the factors that contribute to production are always tending towards some equilibrium point.[21]

For wild and prolonged swings in asset prices to occur, there must be a mechanism that undermines the functioning of the market economy. According to Mises, this mechanism is set in motion by the central bank's monetary policies.[22] Trouble erupts whenever central bank officials try to improve on the working of the free-market economy. We have seen that in a free, unhampered market, errors generate incentives for their corrections. These incentives are, however, removed once the central bank begins to inject money, thereby artificially lowering interest rates below the level dictated by consumer time preferences. In this regard, in a free, unhampered market

economy, interest rates in financial markets will mirror consumers' time preferences. By responding to interest rates, entrepreneurs are, in fact, abiding by consumers' instructions. Once interest rates in financial markets are lowered artificially, they cease to reflect consumers' time preferences. This, in turn, means that entrepreneurs, once they are reacting to interest rates in financial markets, are committing errors, i.e., doing things against consumers' wishes. As long as the artificially low interest-rate policy remains in force, there are no ways or means for entrepreneurs to know that they are committing errors. On the contrary, as the policy of artificial lowering of interest rates intensifies, it generates apparent profits and a sense of prosperity. The longer the period of artificial lowering of interest rates is, the more widespread will be the errors, i.e., the disobedience of entrepreneurs regarding the will of consumers. The discovery that entrepreneurs didn't abide by consumers' instructions occurs once the central bank tightens its monetary stance. In this regard, Mises writes,

> It is essential to realize that what makes the economic crisis emerge is the democratic process of the market. The consumers disapprove of the employment of the factors of production as effected by entrepreneurs.

Mises argues further that,

> As soon as the credit expansion comes to an end, these faults become manifest. The attitudes of the consumers force the businessmen to adjust their activities anew to the best possible want-satisfaction. It is this process of liquidation of the faults committed in the boom and readjustment to the wishes of the consumers which is called depression.[23]

The Misesian business-cycle theory shows that the artificial lowering of interest rates sets in motion expectations for strong activity and good profits in the capital goods sector. This, in turn, raises the allocation of funding towards the capital-goods sector in relation to the consumer-goods sector. This lifts stock prices of capital-goods-producing companies relative to stock prices of consumer-goods-producing companies. If the lowering of interest rates is a one-time-only event, and is not supported

further by the central bank, then the market interest rate will rise. In response to this, stock prices of capital goods-producing companies will weaken, while those of consumer-goods-producing companies will strengthen on a relative basis. If, however, the central bank clings to its loose monetary stance, this will reinforce the rise in stock prices of capital-goods-producing companies relative to the stock prices of consumer-goods-producing companies. Relentless monetary pumping by the central bank that is further amplified through fractional reserve banks raises all prices in money terms, including prices of stocks. Whenever the central bank reverses its monetary stance, a stock market bust is set in motion. The severity of the bust is dictated by the magnitude of the preceding boom, i.e., the preceding bull market and by the state of the pool of savings. Thus, the longer the bull market, the more widespread the errors will be, and therefore the more severe the bust (i.e., the bear market) will be. If the savings pool is expanding, the severity of the bust will be cushioned. If, however, the savings pool is shrinking, then the bear market could be more protracted and severe. In this way, the Austrian or Misesian theory of the business cycle provides the rationale behind the large swings in asset prices.

Importance of Fundamental Analysis

Since various real causes are likely to have prolonged effects on the real data, we can conclude that asset markets cannot be in equilibrium. This, in turn, provides scope for benefits from analyzing the historical data in order to assess the future direction of asset prices. If, however, this can be done, then why don't good analysts become entrepreneurs and make money for themselves? Being knowledgeable doesn't mean that one has the skills to be an entrepreneur. An entrepreneur is an individual who is prepared to confront uncertainties already inherent in the market, and who has the skills to do this.[24] By means of exercising his judgment, an entrepreneur decides on his actions. According to Mises,

> Entrepreneurial judgment cannot be bought on the market. The entrepreneurial idea that carries on and brings profit is precisely that idea which did not occur to the majority. It is not correct foresight as such that yields profits, but foresight better than

> that of the rest. The prize goes only to the dissenters, who do not let themselves be misled by the errors accepted by the multitude. What makes profits emerge is the provision for future needs for which others have neglected to make adequate provision.[25]

To form his judgment, an entrepreneur also takes into account past data. The interpretation of historical data could provide an important input for the entrepreneurial decision process. However, it is his sole vision concerning future consumers' preferences which will determine whether to pursue or not to pursue a particular venture. Various advisory services of economists and fundamental analysts owe their proliferation to a large extent to government and central-bank interference with the economy. The assessment of the implication of various government and central-bank policies requires special training and skills that many entrepreneurs might not have. Possessing these skills, however, doesn't imply that economists or analysts can accurately forecast. What these analyses provide is an important input to entrepreneurs. Economists who follow in the footsteps of Mises maintain that his praxeological framework provides a useful tool for sound analysis.[26] Thus, Jörg Guido Hülsmann writes,

> According to Mises, economics is a science that consists of *a priori* propositions about reality. In his eyes, these propositions are implied in the conditions of action and are arrived at by an exercise of logic. Whatever is the product of sound discursive reasoning, so the argument goes, must be valid for reality.[27]

While the praxeological framework does not provide us with specifics of future events, this framework specifies precisely the logical structure of human actions. In the words of Hoppe,

> [while] I cannot predict what goals I may pursue in the future, what means I will deem appropriate to reach these goals, and what other conceivable courses of action I will choose to reject in order to do what I will actually do (my opportunity cost), I can still predict that as long as I act at all, there will be goals, means, choices, and costs; that is, I can

> predict the general, logical structure of each and every one of my actions, whether past, present, or future.[28]

Whenever the central bank artificially lowers interest rates, the praxeological framework enables us to establish that this artificial lowering must result in the boom—bust cycle. Praxeology, however, cannot tell us the severity of the cycle. The praxeological framework can be seen as providing a link between reality and theoretical reasoning, i.e., it prevents the emergence of theoretical reasoning which is detached from reality. The reason why it can fulfill this role is because it is based on the noncontradictory axiom that human beings are acting consciously and purposefully. All this, however, doesn't guarantee accurate predictions. All other things being equal, one could evaluate the likely impact of a particular government policy with the help of praxeology. Thus, even if other things can never be equal, an analyst could get a good idea as to the consequences of a particular government or central bank action. Over time, forecasters that are equipped with the praxeological framework would outperform those forecasters who are not familiar with this framework.[29]

Conclusion

The main shortcomings of the EMH are similar to those of the long-run competitive theories that focus exclusively on equilibrium outcomes while ignoring the entrepreneurial activity that generates those outcomes. The EMH gives the impression that there is a difference between investing in the stock market and investing in a business. However, the stock market doesn't have a *life of its own*. The success or failure of investment in stocks depends ultimately on the same factors that determine success or failure of any business.

Statistical tests that supposedly validate the EMH framework are based on a flawed method and a failure to understand that the main cause behind the instability in financial markets is the monetary policies of the central bank.

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Government Family Planning: Effects and Incentives

Jacqueline R. Kasun

Austrian economics has long understood that government subsidies of private activities distort incentives, encouraging recipients to use and/or provide more of the services than would otherwise be the case, and to devote resources to lobbying for the protection and promotion of the services (Hayek 1988; Rothbard 1978, pp. 140–70). An excellent example of these tendencies exists in the government-subsidized family-planning industry.

Since the mid-1960s, the government of the United States has played an increasingly intrusive role in the reproductive decisions of persons both in this country and abroad. The effort started as part of the War on Poverty. In 1967, Congress amended the Social Security Act to provide funds for "family planning" in maternal and child health programs; Title V, Title XIX, and Title XX of the Act became major vehicles for federal funding. In that same year, Title X of the Foreign Assistance Act provided financing for family planning and population control to countries receiving U.S. foreign aid (Kasun 1988). In 1970, Title X of the Public Health Services Act added to the flow.

In 1978, the Adolescent Pregnancy Act called for government birth control to be dispensed through "children and youth centers . . . school and educational programs . . . recreation programs" and on and on. In the same year, the Foreign Assistance Act required all countries receiving U.S. foreign aid to take steps to reduce their rates of population growth (22 U.S. Code, sec. 2151–1, sec. 2151a). The contract with Costa Rica, for example, which provided $12,040,000 to that country from the U.S. Agency for International Development, set a "target" of 70 percent for "contraceptive prevalence" by 1992 and a "reduction in crude birth rate from 32/1000 to 28/1000" as well as "family planning included in curricula of medical and nursing schools" and "sex education taught in the schools . . . [and] disseminated to the non-enrolled school age population" (Contract 1988).

The Clinton administration has provided important

additional funds and freedom of action for the family planning industry. As the activities of the industry have become more and more pervasive and its government grants larger and more conspicuous, it has met increasing resistance in Congress and the electorate. In response, spokesmen for the industry have disseminated elaborate statistical studies purporting to show the benefits flowing from the industry's activities, claiming public assistance cost savings of $4 to $12, or even higher, for every public dollar spent on birth control (Brindis and Korenbrot 1989; Forrest and Singh 1990a,b). These have enjoyed wide publicity in the media.

The statistical demonstrations have not relied on empirical observations, but rather on assumptions regarding the numbers of additional pregnancies that would presumably occur in the absence of government-subsidized birth control.

For example, one method of estimation assumes that, in the absence of publicly-funded family planning, women would use the same types and proportions of birth control, including no birth control, as reported by women of similar income who did not use publicly-funded clinics, and would experience the rates of pregnancy due to contraceptive failure associated with each of these methods (Forrest and Singh 1990a,b). The estimate assumes that 21 percent of the women presently obtaining contraceptives from public clinics would stop using any method of birth control but would not otherwise change their behavior.

However, although all or almost all women who use public clinics are sexually active and are seeking to avoid pregnancy, this cannot be assumed regarding women who do not use such clinics. A significant proportion of such women may not be currently sexually active, but professional "family planning" parlance defines all women who have ever had intercourse as being "sexually active" ("Women at Risk," p. vii). Therefore, a comparison of these two groups is likely to give a falsely high estimate of the additional pregnancies that would occur if the clinics should lose their public funding.

A second method of estimation assumes that, in the absence of publicly funded clinics, women would shift to other types of birth control, including no birth control, in the same proportions as reported by women who stopped using the pill between 1979 and 1982, and would, as in the method described above, experience the rate of accidental pregnancy associated with each type of birth control (Forrest and Singh 1990a,b). It is assumed that 28 percent would use no method of birth control, but would

not otherwise change their behavior. Here again, the control group is not restricted to women who are currently sexually active and are seeking to avoid pregnancy, as is the case with women who attend birth control clinics. Comparison of the two groups, therefore, leads to a falsely high estimate of the additional pregnancies that would occur if the clinics should lose their public funding.

Similarly, a third method is based on women's reports in 1979 of their contraceptive behavior prior to their first visit to a public clinic (Forrest and Singh 1990a,b). It assumes that 55 percent of the clinic clients would use no type of birth control, but would not otherwise change their behavior if the clinic services were no longer available. It is biased in the upward direction for the same reason as the first two methods of estimation, but to an even greater degree.

Finally, "Pattern IV" (Forrest and Singh 1990a,b) assumes that, if clinic services were no longer available, all of the women who are presently served would continue their current levels of sexual activity but none of them would make any effort to prevent conception. Pattern IV is chiefly useful in yielding an extremely high estimate of the pregnancies that are prevented by the clinics, with which an apparently more "reasonable" estimate (based on the first three methods which, as we have seen, probably yield exaggerated estimates of the cost savings) can be compared.

None of the estimates has taken account of the tendency of people to behave more circumspectly in situations where they face higher risk (Baumol and Blinder 1991, p. 257), and conversely, to behave more carelessly when they are "insured" against risk. Just as the person whose car is fully insured is less likely to be sure always to lock his car, the young couple who believe their publicly provided contraceptives are "protecting" them may be less likely to avoid sexual risks.

The alleged "cost savings" were, therefore, a weak reed on which to base an increase in public expenditures. With few exceptions, other studies have reported little to support the expectation of public savings from public outlays on birth control. Lundberg and Plotnick found that the likelihood of a first premarital birth on the part of young white women is higher in states which provide more liberal access to contraceptives, abortion, and AFDC benefits (Lundberg and Plotnick 1990). A study conducted in Ohio and Georgia showed that births, as well as pregnancies, declined among Medicaid-eligible women after

the states stopped paying for abortions (Trussell, et al. 1980).

A study of 15 states with similar social-demographic characteristics and rates of teenage pregnancy in 1970 showed that the states with the highest expenditures on family planning had the largest increases in abortions and births out of wedlock among teenagers between 1970 and 1979 (Roylance 1981). A study of 1980–81 data for the 50 states shows that the states that spent less on family planning also had lower rates of abortion and out-of-wedlock births on the part of white teenagers (Kasun 1987). Singh reported, "a significant and positive relationship between the percentage of women receiving AFDC payments in a state and the availability there of Medicaid funds for abortion" (Singh 1986, p. 216).

There is further evidence that restricting, rather than increasing, access to publicly-funded birth control is more likely to reduce dependency. Several states which have required that parents be notified when their minor children are given contraceptives or abortions have experienced reductions in their rates of adolescent pregnancy. In 1980, the state of Utah passed a law requiring parental consent for minors to be given birth control, and rates of pregnancy and abortion published by the state health department fell among girls aged 15–18 (United Families of America 1983).

Based on interviews with some 12,000 young people, Marsiglio and Mott concluded that teenagers who had sex education (which is one of the activities supported by government birth-control programs) were more likely to engage in sexual activity at an early age but no more likely to become premaritally pregnant than young people who had not had the instruction (Marsiglio and Mott 1986). Dawson, publishing in the same year, also found that young people who had sex education were more likely to engage in sexual activity at an early age, but that it was impossible to determine the effect on premarital pregnancy because of the underreporting of abortions, estimating that the young people responding to the survey reported no more than 33 percent of the abortions they had actually had, thus producing a spuriously low estimate of premarital pregnancies (Dawson 1986).

Concluding a study of the effects of the law requiring parental notification of minors' abortions in Massachusetts, Cartoof and Klerman wrote that "Massachusetts minors continue to conceive, abort, and give birth in the same proportions as before the law was implemented" (Cartoof and Klerman 1986).

This conclusion, however, was at odds with the numbers they presented. They counted the number of abortions performed on minors in the state before the law and in the state and five neighboring states after the law. They also counted the number of births to minors before and after the law.

They presented the following figures:

	1980 Before the law	1982 After the law	Change
Abortions, girls under 18	5113	3943*	-1170
Births, girls under 18	2471	2478	+ 7

* Including abortions performed out-of-state on Massachusetts minors

Clearly, there was a large reduction in abortions and a negligible increase in births to minors in Massachusetts. How much of this reduction in abortion is the result of out-of-state minors no longer coming to Massachusetts? The authors state that after the law "the number of minors who obtained out-of-state abortions jumped to 69, an increase of 130 percent over the average of the first four months of 1981" (p. 398). This would imply that about 30 Massachusetts minors per month had been going out of state for abortions prior to the law. They also state that "twice as many out-of-state minors came to Massachusetts for that reason" (p. 399). This would imply that about 60 out-of-state minor girls per month, or about 720 per year, had been coming to Massachusetts for abortions before the law. This leaves a net reduction of 450 (1170 - 720 = 450) abortions that must be attributed to the law's effects on Massachusetts minors. This is more than 10 percent of the number previously performed on them.

In 1981, Minnesota passed such a law. Figures published by the Center for Health Statistics, Minnesota Department of Health, showed that the abortion rate among girls 15 to 17 years of age fell by 21 percent between 1980 and 1985, the pregnancy rate fell by 15 percent, and the fertility rate by 9 percent (Select Committee on Children, Youth, and Families 1986). Planned Parenthood filed suit against the state of Minnesota to have the law declared unconstitutional (*Hodgson* v. *Minnesota* 1988). The law was upheld and took effect again in 1989.

A study published in 1994 again addressed the effects of parental involvement laws on adolescent abortion and fertility. It

concluded that such laws do "reduce adolescent abortion rates and may, to a lessor (sic) degree, reduce adolescent pregnancy rates. Thus, the findings imply that enforcement of parental involvement laws will increase adolescent fertility rates" (Ohsfeldt and Gohmann 1994). The authors base this conclusion on multiple regression models, in one set of which the ratios of adolescent abortion rates to rates for older teens and adult women in several states are the dependent variables; in the other set, the dependent variables are the ratios of adolescent pregnancy rates to rates for older teens and adult women.

While their conclusion follows logically from the results apparently generated by their models, there are some problems with their models. In the first place, their models explain only one-fourth to one-third of the variation in pregnancy ratios. That is to say, the coefficients of determination are small, meaning that the standard errors of the estimates must be large and the significance of the findings correspondingly diminished. Second, the authors base their conclusions solely on point estimates rather than the confidence interval estimates that are normally used in such cases. The article contains no direct information on the standard error of the estimates or the standard errors of the partial regression coefficients. These are serious faults.

Another interesting feature is that the authors do not use birth data, which are readily available from official sources and provide direct, accurate information about fertility, but instead estimate fertility indirectly from privately estimated pregnancy data, which include privately estimated abortion rates. They then infer that an increase in fertility must have occurred when their model predicts a decrease in pregnancy that is smaller than the estimated decrease in abortion.

In addition, the authors say that they omit from their study all states "where reliable data on adolescent abortions are unavailable" as well as Alaska and Hawaii for undisclosed reasons. It is true that, as the result of lobbying by the government-funded "family planning" industry, abortion data throughout the nation are not collected as vital statistics such as births, deaths, and marriages. The federal government imposes no requirements for abortion reporting; nor do many, perhaps most, states. In California, for example, as in many other states, the state health department collects no information on abortions other than those paid for by MediCal. The department responds to requests for total abortion information by providing Guttmacher Institute estimates. The federal Centers for Disease

Control publishes figures for some of the states from time to time, but the most widely used data by age and race for all states come from the Guttmacher Institute, a research agency created by Planned Parenthood, one of the principal promoters of government "family planning," at intervals of three to five years (Henshaw 1993), based on their surveys of all known abortion providers in the country.

Given the total number of abortions indicated by their surveys, the Institute estimates the proportion of abortions performed on teenagers, using information supplied by state health departments and the Centers for Disease Control. For some states, no such information or estimates exist. In order to publish figures on the age distribution of abortions for these states, persons at the Institute make estimates "based on the proportion of abortions obtained by women of the same age in neighboring or similar states" (Henshaw 1993). In 1988, this list numbered 10 states, including California, the most populous, and Illinois. What all of this means is that the sample used for the Ohsfeldt and Gohman models omits 26 percent of the population and the associated information without correcting for the bias thus produced. In their alleged effort to "avoid possible bias," they may have created more bias than originally existed in the figures estimated by the Guttmacher Institute.

In principle and for very good reasons, Austrian economics has serious reservations about statistical analysis. The Ohsfeldt and Gohmann article, as well as the others discussed above, shows that these reservations are well taken.

Finally, the proponents of government birth control have created school "clinics" to distribute contraceptives to school children, claiming miraculous success in reducing adolescent pregnancy (Zabin 1986). Subsequent evaluation, however, showed that the clinics either had no effect or significantly increased births to teenagers (Kirby 1993; Kirby 1991).

A serious question remains. Should government try to expand access to family planning information and services in the interests of controlling fertility among those who are or might become dependent on public assistance? To Austrian economic thought, it is obvious that public assistance must have a seriously adverse impact on behavioral incentives (Rothbard 1978), not only among the recipients, but among those who are forced to pay for the programs. But the narrower question is not whether public assistance should be abolished, but whether, given that it exists and is likely to endure for a variety of political reasons,

government birth control can reduce the incidence of dependency. To put the question another way, does government birth control lessen the problem of dependency, or is it an example of wading deeper into the swamp?

Methods

Using data for the 50 states, this study employs multiple regression analysis to investigate the relationship between public expenditures on contraceptives, sterilizations, and abortions on the one hand, and rates of dependency on Aid to Families with Dependent Children on the other, while controlling for important other factors. It also investigates the statistical effects of such policy measures as providing government-financed abortions and requiring parental involvement in minors' decisions regarding abortion. The results will be examined to see whether they indicate that publicly-funded birth control reduces or contains dependency, as is commonly claimed by supporters of such programs.

As shown in Table 1, rates of dependency on Aid to Families with Dependent Children in 1985 varied from 1.3 percent of state population in New Hampshire to 7.4 percent in Michigan. The factors contributing to the differences in the rates may include differences in state efforts to reduce unwanted pregnancy among low-income women. If government-subsidized birth control does indeed prevent unwanted pregnancy among such women, we should expect to find a negative statistical relationship between public expenditures for birth control and dependency rates when we isolate the effects of family planning from other factors affecting the rates of dependency.

There is also the problem of determining causation. Although statistical analysis in general can show association but not causation, there are some statistical tests for determining causation. To the extent possible, these tests are used in this study. In addition, to lessen the probability that the birth control expenditures are policy responses to a perceived problem of dependency, this study observes birth control expenditures two years prior to the year of the observed dependency rates. Table 1 shows that public birth-control expenditures per woman aged 15 to 44 in 1983 varied from $3 in Utah to more than $15 in California and $16 in Hawaii.

It is reasonable to believe that other factors having an impact on dependency may be unwed births, either as a

proportion of total births or as a proportion of the population or some part of it; male unemployment, which renders fathers unable to support their children; the size of the average cash aid grant relative to other possible sources of income; race; the proportion of the population statistically defined to be in poverty; the age distribution of the population; and the rural—urban distribution of the population. Accordingly, this study investigates the impact which each of these factors has on dependency ratios. Table 2 presents a list of the variables.

The method of multiple regression permits estimation of the separate impact in which each factor has on dependency independent of the other factors. In cases where such factors are statistically correlated, or intertwined, with each other, it is not possible to estimate the separate influence of each factor on the dependent variable. This is called the problem of multi-collinearity. Table 3 presents selected elements of the correlation matrix for the proposed independent variables. It shows, not surprisingly, that teenage pregnancy, race, and poverty are correlated with unwed births. It is appropriate, therefore, to omit some of these from the analysis, recognizing that the remaining one incorporates the effects of the others and that nothing is added to the predictive capability of the model by including the others. Also, the method of two-stage least squares is appropriate in situations where one or more of the independent variables may depend on some of the others. This method, which is used in this study, in effect regresses such variables first on the others and then regresses the dependent variable on all of the independent variables.

Table 1
AFDC Dependency and Public Birth-Control Expenditures Per Woman 15–44, by State, 1985

State	AFDC (1)	FPW (2)
Alabama	3.7	$6.87
Alaska	3.1	5.64
Arizona	2.3	4.95
Arkansas	2.8	6.87
California	6.2	15.51
Colorado	2.6	4.36

Connecticut	3.7	7.27
Delaware	3.6	11.87
Florida	2.4	3.19
Georgia	3.9	6.81
Hawaii	4.6	16.46
Idaho	1.6	5.26
Illinois	6.4	7.21
Indiana	3.0	4.37
Iowa	4.3	6.01
Kansas	2.7	4.10
Kentucky	4.3	8.03
Louisiana	5.3	12.18
Maine	5.0	15.02
Maryland	4.5	5.20
Massachusetts	4.1	7.04
Michigan	7.4	9.71
Minnesota	3.8	6.29
Mississippi	6.0	12.69
Missouri	3.9	3.46
Montana	3.1	6.86
Nebraska	2.9	4.15
Nevada	1.6	5.94
New Hampshire	1.3	5.02
New Jersey	4.8	10.39
New Mexico	3.5	8.69
New York	6.2	11.69
North Carolina	2.8	7.75
North Dakota	1.9	5.04
Ohio	6.3	7.70
Oklahoma	2.6	6.58
Oregon	2.9	5.55
Pennsylvania	4.9	10.23
Rhode Island	4.6	3.56
South Carolina	3.8	10.71
South Dakota	2.4	3.09
Tennessee	3.3	9.65
Texas	2.4	8.36
Utah	2.3	3.06
Vermont	4.1	7.32
Virginia	2.7	6.15
Washington	4.3	7.09
West Virginia	5.9	6.33
Wisconsin	6.2	7.19

Wyoming	2.0	4.93

(1) AFDC5 = Number of persons, including children, dependent on Aid to Families with Dependent Children as a percent of the state's population, 1985, derived from *The Statistical Abstract of the United States*, 1987 and 1988, Tables 25 and 621.

(2) FPW = Total government expenditures on contraceptives, sterilizations, and abortions, by state, 1985, derived from Gold and Nestor, 1985, divided by number of women aged 15–44, by state, 1983, derived from National Center for Health Statistics, *Monthly Vital Statistics Report*, September 20, 1985.

Table 2
Variables

AFDC5 - the number of persons, including children, dependent on Aid to Families with Dependent Children as a percent of the state's population, 1985, derived from *The Statistical Abstract of the United States*, 1987 and 1988

AFDCR - the ratio between the 1985 average AFDC monthly grant per family and average annual pay in each state, derived from *The Statistical Abstract of the United States*, 1988

AVU - the average level of male unemployment in each state for 1983–85, derived from *The Statistical Abstract of the United States*

BHPC5 - percent of total population that is hispanic or black, 1985, derived from intercensal estimates by the U.S. Bureau of the Census

FA - a dummy variable which takes the value of 1 if the state provides free abortions for girls dependent on their families for support and for low-income women, and equals zero otherwise, from Gold and Nestor, 1985

FPW - total government expenditures on contraceptives, sterilizations, and abortions, by state, 1983, derived from Gold and Nestor, 1985, divided by number of women aged 15–44, by state, 1983, derived from National Center for Health Statistics, *Monthly Vital Statistics Report*, September 20, 1985

lnAFDC - ln AFDC5

lnAFD5 - ln AFDCR

lnAVU - ln AVU

lnFPW - ln FPW

lnUR3 - ln UR3

lnUR4 - ln UR4

M80 - percent of state population living in metropolitan areas, 1980, from *The Statistical Abstract of the United States*, 1993

PIPC5 - disposable income per capita, 1985, from *The Statistical Abstract of the United States*, 1993

POVA - average percent of population below poverty threshold, 1979–1989, from *United States Census*, 1980 and *The Statistical Abstract of the United States*, 1993

PW1824 - ratio between number of females aged 18–24 and total population, 1984, derived from the U.S. Bureau of the Census, *Current Population Reports*, P25–1106, "State Population Estimates by Age and Sex: 1980 to 1992," November 1993

TAP5 - the sum of births and abortions per 1,000 women of age 15–19 in 1985, from Henshaw and Van Vort, 1989

UB3 - number of unmarried births per 1,000 state population, 1983, derived from the National Center for Health Statistics, *Monthly Vital Statistics Report*, September 20, 1985, and the U.S. Bureau of the Census

UB4 - number of unmarried births per 1,000 state population, 1984, derived from the National Center for Health Statistics, *Monthly Vital Statistics Report*, July 18, 1986, and the U.S. Bureau of the Census

UB5 - number of unmarried births per 1,000 state population, 1985, derived from the National Center for Health Statistics, *Monthly Vital Statistics Report*, July 17, 1987, and the U.S. Bureau of the Census

UR3 - the 1983 ratio between births to unwed mothers and total

births in each state, from the National Center for Health Statistics, *Monthly Vital Statistics Report*, September 20, 1985

UR4 - the 1984 ratio between births to unwed mothers and total births in each state, from the National Center for Health Statistics, *Monthly Vital Statistics Report*, July 18, 1986

UR5 - the 1985 ratio between births to unwed mothers and total births in each state, from the National Center for Health Statistics, *Monthly Vital Statistics Report*, July 17, 1987

URA - unmarried births as percent of total births in each state, average for 1983 and 1984, derived from UR3 and UR4

Table 3
Selected Entries from the Correlation Matrix

Variables	Correlation	Variables	Correlation
AFDC5, AVU	0.4308404	FA. TAP5	0.4852161
AFDC5, FPW	0.5676144	FPW; TAP5	0.4536160
AFDC5, UB4	0.3427625	FPW, UR4	0.4544095
AFDC5, UR4	0.4644188	M80, PIPC5	0.5791413
AFDC5, BHPCS	0.2434798	M80, TAPS	0.6147671
AFDCR, BHPC5	-0.5960336	M80, UR4	0.3694605
AFDCR, FA	0.3581167	PIPC5, TAPS	0.6150294
AFDCR, POVA	-0.6315263	POVA, TAP5	-0.1529815
AFDCR, UR4	-0.4565581	POVA, UB4	0.5012709
AVU, POVA	0.4121163	POVA, UR4	0.4196748
AVU, TAP5	-0.1061478	PW1824, UB4	0.2469489
AVU, UR4	0.0977951	PW1824, UR4	0.4196748
BHPC5, FPW	0.4093050	TAPS, UB4	0.6189787
BHPC5, M80	0.3752346	TAP5, UR4	0.6251695
BHPC5, POVA	0.5039383	UB4, UR4	0.8904237
BHPCS, TAPS	0.5769857	UR3, UR4	0.9943451
BHPC5, UR4	0.7910626		

Finally, a problem in statistical estimation can arise when the residuals from the regression are correlated with one or more of the independent variables. When this occurs, the estimates are still unbiased, but the tests of significance lose some of their reliability (Gujarati, chap. 11). This problem of "heteroscedasticity" arises in this investigation. It can be lessened

or corrected by using the method of weighted least squares or by transforming the variables into logarithmic form, both of which are used in this study.

Results

Table 3 shows that dependency is correlated with male unemployment, family-planning expenditures, the unwed-birth ratio, race, and (moderately) with the ratio between the average cash grant and average pay in the state. It also shows that unwed births are correlated with race, poverty, teenage pregnancy, family-planning expenditures, metropolitan status, and unwed births in preceding years. Teenage pregnancy is correlated with race, free abortions, metropolitan status, and higher per-capita income, but not with male unemployment or poverty.

Table 4 gives regression results for unwed births, as a proportion of all births and relative to the total population of the state, showing that family-planning expenditures for 1983 are a significant factor in the unwed-birth ratio for 1984 and 1985, but free abortions are not. Table 4 also shows that poverty, race, and teenage pregnancy are significant factors in unwed births, but free abortions and unemployment are not.

Table 5 shows that teenage pregnancy is significantly and positively associated with free abortions, less so with family-planning expenditures, and negatively associated with male unemployment and the size of the average AFDC benefit relative to average pay. It also shows that teenage pregnancy is associated with higher levels of per-capita state income. Almost 80 percent of variations among states in teenage pregnancy are statistically explained by variations in per-capita income, race, and the availability of free abortions.

Table 4
Regression Results, Unwed Births

Dependent Variable	1	t-value	2	t-value	3	t-value	4	t-value
	Coefficient		Coefficient		Coefficient		Coefficient	
	UR4		UR4		UR4		UR5	
Intercept	70.7047	2.6870	121.9941	10.6259	249.5284	4.4430	128.8993	2.0630
FPW	5.3683	2.5022	1.8976	1.1671	6.8878	3.7088	4.2802	2.4638

FA	19.5674	1.2465	14.2123	1.3447	27.5210	1.9387	-8.3938	-0.5793
POVA	S.8143	3.0620						
BHPC5			3.6120	7.8250				
AVU					-2.7754	-1.0847	0.8970	0.3850
AFDCR					-5832.1	-4.7983	-3785.9	-8.3547
TAPS							1.5119	3.9400
PIPCS								
Adj. Rsq.	0.2979		0.6375		0.4293		0.5566	

Table 4 (Continued)

Dependent Variable	5 Coefficient UR5	t-value	6 Coefficient UBS	t-value	7 Coefficient UBS	t-value
Intercept	140.1615	4.6773	2.1679	2.06	3.7253	6.1799
FPW	4.4288	2.6398	0.1167	3.5718	0.1128	3.3776
FA	-6.8505	-0.4967	0.0414	0.1505	0.2504	0.9809
POVA						
BHPCS						
AVU			0.0114	0.2435	-0.0120	-0.2618
AFDCR	-3949.0233	-3.8112	-88.0602	-4.0648	-81.3979	3.7244
TAPS	1.4640	4.0718				
PIPC5			0.0001	1.7876		
Adj. Rsq.	0.5650		0.3656		0.3346	

Table 5 Regression Results, Teenage Pregnancy

Dependent Variable	1 Coefficient TAP5	t-value	2 Coefficient TAP5	t-value	3 Coefficient TAPS	t-value	4 Coefficient TAP5	t-value	5 Coefficient TAP5	t-value
Intercept	79.7773	3.1115	20.2705	1.9960	-41.7569	-1.7316	-13.7801	-0.6583	-17.9878	-1.9315
AVU	-1.9694	-2.3003								
FPW	1.7662	2.8422	1.3551	2.2869	1.4439	3.0053	0.7103	1.6954	0.7006	1.7101
FA	20.2636	4.2661	11.0458	2.5827	7.7981	2.1468	8.3535	2.7156	8.3758	2.7959
AFDCR	-1098.3520	-3.7007			-745.8609	-1.9643				
M80			0.4060	4.6884	0.1871	2.3157	0.0214	0.2616		
POVA			0.4008	0.7246	1.2590	1.7825	-0.1228	-0.1774		
PIPCS					0.0066	4.8691	0.0054	4.0746	0.0054	7.0923
BHPCS							0.8673	4.4718	0.8660	7.4922

Adj. Rsq.	0.4018	0.5190	0.7019	0.7783	0.7873

Table 6 presents the results of regression analysis of AFDC dependency. It shows that dependency is very significantly and positively associated with male unemployment. Dependency is also significantly and positively associated with the size of the average cash grant relative to average pay in the state and with unwed births. It is more closely associated with unwed births as a proportion of total births than with unwed births as a proportion of total state population. This may reflect the influence of the age distribution of the population; when the proportion of the population that consists of females between the ages of 18 and 24 is added as an explanatory factor (see Equation 4 in Table 6), the adjusted R-squared increases but unwed births become insignificant, probably because of multi-collinearity between unwed births and the age distribution.

Free abortions have no significant effect on dependency, a result which contradicts widely-publicized claims (Torres et al. 1986), nor does teenage pregnancy directly, but teenage pregnancy affects unwed births, which increases dependency. Family planning expenditures per woman of reproductive age are positively and significantly associated with dependency.

Almost 90 percent of the variation among states in dependency rates are statistically explained by variations in male unemployment, the unwed-birth ratio, the size of the average cash grant relative to average pay in the state, public expenditures on family planning, and other factors represented by the intercept. This appears in Equations 6, 7, 9, and 10, which are weighted to correct for heteroscedasticity. The results of unweighted two-stage least-squares testing (Equation 8) are not greatly different from those of ordinary least squares (Equation 5); and the results of weighted two-stage least-squares testing (Equation 9) are not much different from those of least-squares weighted (Equation 6), suggesting that the model is not much affected by multi-collinearity among the explanatory variables.

The intercept term in Table 6 is negative and statistically significant, which may suggest that not all determinants of dependency are included in the models. Data by states on non-cash benefits to AFDC recipients are not available, and probably significantly affect the decision to apply for public assistance.

Table 6

Regression Results, AFDC Dependency

Method	1	t-value	2	t-value	3	t-value	4	t-value	5	t-value
Dependent Variable	LS Coefficient		LS Coefficient		LS Coefficient		LS Coefficient		LS Coefficient	
	AFDC5		AFDC5		AFDC5		AFDC5		AFDC5	
Intercept	5.1055	5.0045	3.4407	4.0102	2.7415	2.4498	10.9246	4.0285	7.9615	3.3510
AVU	0.3065	5.8047	0.2698	4.8402	0.2671	4.2110	0.3383	5.6736	0.3034	5.8840
FPW	0.1024	2.3686	0.1122	2.5512	0.1602	3.0872	0.1493	3.2342	0.1012	2.3694
FA	-0.1071	0.3559	0.2384	0.6862	0.2147	0.6033				
AFDC3	164.1563	4.9119	153.2260	4.6072	109.0536	3.6127	125.0643	3.7709	159.1457	4.7529
UR4	0.0162	3.3327							0.0159	3.5017
UB4					0.4705	2.2359	0.3754	1.9838		
URS			0.0184	5.1139						
TAPS			-0.0153	1.4324						
PW1824							126.0613	3.3670		
Instruments										
Weight										
Adj. Rsq.	0.6868		0.6806		0.5369		0.6288		0.6928	

Regression Results, AFDC Dependency

Method	6	t-value	7	t-value	8	t-value	9	t-value	10	t-value
	LS(W) Coefficient		LS(W) Coefficient		TSLS Coefficient		TSLS(W) Coefficient		TSLS(W) Coefficient	
Dependent Variable	AFDC5		AFDC5		AFDC5		AFDC5		AFDC5	
Intercept	5.2574	4.3785	5.4127	4.9665	4.8915	5.2515	5.2364	4.3435	5.3746	4.9098
AVU	0.3398	8.3488	0.3488	7.2378	0.3028	8.8699	0.3397	8.3501	0.3487	7.2253
FPW	0.0887	2.0370	0.1289	2.3026	0.1034	2.4188	0.0894	2.0464	0.1306	2.3250
FA										
AFDC3	161.5984	5.0123	158.6257	5.0883	157.6556	5.6816	161.1257	5.0795	157.8651	5.1480
UR4	0.0162	4.5096	0.0151	4.2198	0.0156	5.3488	0.0161	4.4437	0.0149	4.1357
UB4										
URS										
TAPS										
PW1824										
Instruments					UR3		UR3		UR3	
Weight	AFDC5, predicted		AVU				AFDC5, predicted		AVU	
Adj.	0.8875		0.8516		0.6928		0.8872		0.8516	

Rsq.

The intercept may also indicate that the relationship between dependency and the independent variables is not linear throughout. In the very unlikely event that all of the independent variables had zero value, then dependency might be zero but could hardly be negative.

Using the model in Table 6, Equation 9 to predict dependency for California in 1985, given that AVU, average male unemployment in 1983–1985, was 8.2 percent; that FPW, total government expenditures on contraceptives, sterilizations, and abortions per woman aged 15–44 in 1983 amounted to $15.51; that AFDCR, the ratio between the 1985 average AFDC monthly grant per family and average annual pay, amounted to 0.0245; and that UR4, the 1984 ratio between births to unwed mothers and total births amounted to 238.4 per thousand; AFDC5, the percent of the population receiving AID to Families with Dependent Children should have been 6.7 percent, compared to the actual rate of 6.2 percent.

Again, using the model in Equation 9, if FPW, family-planning expenditures, had been $1 more per woman, predicted dependency would have been 6.8 percent instead of 6.7 percent. If male unemployment had been 9.2 percent instead of 8.2 percent, predicted dependency would have been 7.1 percent instead of 6.7 percent. If the monthly cash grant had amounted to 3 percent of average annual pay in the state instead of the actual 2.4 percent, this would have increased predicted dependency to 7.6 percent. Taking account of the effects of family planning expenditures on unwed births as shown in Table 4, Equation 3, if FPW had been $1 more per woman, predicted unwed births would have amounted to 7 more per thousand, increasing dependency by a tenth of a percentage point.

Using the model in Equation 9 of Table 6 and 1992 data on government birth-control expenditures per woman aged 18–44 in California (Daly and Gold 1993) and data for 1992 and 1993 on male unemployment, the unwed birth ratio, and the monthly cash grant relative to average pay (*Statistical Abstract*, 1994, 1995), the model predicts that AFDC dependency in 1993 should have been 8.5 percent of the state population, compared with an actual rate of 8.3 percent.

Table 7
Regression Results,

Ln AFDC5 Method	1 LS Coefficient	t-value	2 LS Coefficient	t-value	3 TSLS Coefficient	t-value
Dependent Variable	LnAFDC5		LnAFDC5		LnAFDC5	
Intercept	-2.0748	-3.2495	-2.4167	-3.4258	-2.0165	-3.1452
LnAVU	0.5610	4.5763	0.5363	4.3216	0.5588	4.5573
LnFPW	0.2220	2.3513	0.2299	2.3991	0.2278	2.4082
LnAFDCR	0.6035	5.3161	0.5915	5.1444	0.5969	5.2484
LnUR4	0.8244	5.7081			0.8066	5.5439
LnUR5			0.8768	5.4853		
Instrument					LnUR3	
Adj. Rsq.	0.6571		0.6457		0.6570	

Table 7 presents the results of logarithmic transformation of the variables, another procedure recommended for dealing with heteroscedasticity. The same relationships appear. A useful feature of logarithmic transformations is that they permit the estimation of elasticities. Thus, the results indicate that a one percent increase in male unemployment increases the dependency rate by more than 0.5 percent; a one percent increase in the average cash grant relative to average pay increases the dependency rate by 0.6 percent; a one percent increase in the unwed birth ratio increases the dependency rate by 0.8 percent; and a one percent increase in family planning expenditures per woman of reproductive age increases the dependency rate by about 0.2 percent.

There is, thus, a clearly positive relationship between dependency, unwed births, and teenage pregnancy, on the one hand, and government family-planning programs on the other. There is no evidence that the government birth-control programs reduce the problems which they claim to address. It is, nevertheless, possible that the programs represent efforts to control long-standing problems, and that, even though they appear in statistical models to be unsuccessful, the problems would be worse in the absence of the programs.

There are some statistical tests of causality that can be used to help resolve such ambiguous cases (Gujarati 1988, pp. 541–43). They proved not to be helpful in this study, however. What they chiefly showed is the very high year-to-year correspondence in state ratios of unwed births, rates of teenage pregnancy, and

public expenditures on birth control. What they suggest is that public budgeting for "family planning" is the result of an embedded political process that continues to finance programs whether or not they correct problems and that the problems continue and increase despite the publicly funded programs ostensibly aimed at control.

The models in Table 6 were expanded to test for the effect of parental involvement laws, which require parental notification or permission for minors' abortions. Using a dummy variable to represent the existence of such a law, the results indicated that such laws do tend to reduce dependency, but the coefficients were not statistically significant. This is not surprising, since the girls under age 18 to which such laws apply accounted for only 15 percent of the total births to unmarried women in 1985 (13 percent in 1993) and only a fraction of these became dependent on public assistance. Even if regression analysis were to show a significant effect of such laws, this would leave unanswered the question as to their effects on surrounding states. That is, it may be that the chief effect of such laws is, as some have said (Cartoof and Klerman 1986), to send young girls out of state for their abortions.

Table 8 addresses these questions. It compares birth rates and abortion rates among teenagers in 1980 and 1988 for states having parental involvement laws in 1988 with the rates in surrounding states and in other states. The rates are weighted averages for the states in each of the three groups, the weights being the number of young women of age 15–19 in each state. The table shows that birth rates as well as abortion rates declined in the states having parental involvement laws, that there was no increase in the rates for surrounding states, and that both rates increased in other states. These results strongly suggest that families provide better guidance for young people than do state-subsidized birth controllers.

Table 8 Weighted Average[1] Birth and Abortion Rates per 1,000

Women of Age 15–19 in States with Parental Involvement Laws, Surrounding States, and Other States, 1980 and 1988

	1980 Rate[4] of Birth	1988 Rate[5] of Abortion	1980–88 Change in Rate of Birth			
				Abortion	Birth	Abortion
States with Parental Involvement Laws 1988[2]	55	33	51	32	-4	-1
Surrounding States[3]	55	40	54	40	-1	0
Other States	49	50	51	53	2	3
U.S.	53	43	53	43	0	0

[1] Weighted by numbers of women 15–19.
[2] Laws in force in 1988: Alabama, Indiana, Louisiana, Massachusetts, Missouri, No. Dakota, Rhode Island, and Utah.
[3] Arizona, Arkansas, Colorado, Connecticut, Florida, Georgia, Idaho, Illinois, Iowa, Kansas, Kentucky, Michigan, Minnesota, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New York, Ohio, Oklahoma, So. Dakota, Tennessee, Texas, Vermont, Wyoming.
[4] Singh 1986.
[5] Henshaw 1993.

Conclusions

This study has found no evidence that public subsidies for contraceptives, abortions, and sterilizations reduce the incidence of public assistance, contrary to much-publicized claims. Quite the opposite, the results indicate that higher expenditures on government-subsidized birth control are associated with higher ratios of unwed births, higher rates of teenage pregnancy, and higher levels of dependency, while restrictions on access, in the form of parental-involvement requirements for minors' abortions, are associated with reductions in unwed pregnancies, births, and abortions.

The results also suggest that the higher the public-assistance benefit is relative to average pay, the higher the rate of dependency, which probably reflects the economic rationality of the recipients of public assistance, as well as the adverse-selection effect familiar to economists (that is, high public-assistance benefits attract immigrants).

The high and significant correlation between male unemployment and dependence on public assistance suggests that the most effective way of combating the so-called "welfare problem" may be to improve labor markets—that is, to free them from the prevailing government restrictions—rather than to subsidize birth control. Many economists have called attention to the government's major role in producing unemployment (Rothbard 1978; Williams 1982; Vedder 1993; Lindbeck 1995).

This study has demonstrated the futility of trying to reduce dependency by means of yet another public intervention—government-subsidized birth control. Austrian economics has shown the diverse ways in which government-transfer programs distort incentives, both among those who receive the transfers and those who pay the taxes to finance them (Rothbard 1978, pp. 142–70). A moment's reflection shows why this should be so in the case of government birth control. One reason may lie, as some authors have suggested, in the "moral hazard" effect—that is, the encouragement which public "family planning" programs give to sexual risk-taking which would not occur to the same extent in the absence of the programs (Baumol and Blinder 1991, p. 257). Also, the operators of public-birth control programs need a measure of their "productivity" to justify the continuation and growth of their subsidies. The number of "acceptors" of contraceptives, sterilizations, and abortions serves as this measure. Hence, recruitment of customers for such subsidized services is essential. Such recruitment efforts will be most effective when concentrated among those not already served by

private providers—that is, among the unmarried, young, and inexperienced, and those with little income of their own. High school and college students provide an ideal market, and the very large efforts at sex "education" and recruitment of these potential customers should come as no surprise. These activities will obviously tend to increase the problems which they propose to correct, as the evidence indicates (Marsiglio 1986). The recruiters, however, will argue that the problems would be much worse in the absence of their efforts, as we have seen.

In addition, the subsidies constitute an incentive to inflate the reported number of users of the "services." For example, performing "abortions" on non-pregnant clients appears to be common (Rhomberg 1980, p. 63).

Finally, the recipients of subsidies have the means and the motive to engage in heavy lobbying of government officials and courting of the media to ensure the continuation and growth of their largesse, and to plead that the reason their programs do not produce the promised results is that they do not yet have enough financing. Government-financed Planned Parenthood operates its own research agencies, publishes its own journals, and engages in extensive litigation to promote government birth control. Through its research arm, the Alan Guttmacher Institute, the agency distributed its highly influential glossy booklet *11 Million Teenagers: What Can Be Done about the Epidemic of Adolescent Pregnancies in the United States* to government officials, newspaper writers, parent—teacher organizations, churches, youth organizations, and other creators of public opinion throughout the nation (Kasun 1988, p. 117). A typical Planned Parenthood clinic, which derives most of its income from government sources, spends tens of thousands of dollars annually on lobbying government officials, and on travel for that purpose (Six Rivers Planned Parenthood 1994). In addition, clinic personnel play an active role in party politics.

Politicians, therefore, face a watchful, committed, government-financed special interest group, ready to administer swift punishments and rewards for their actions, while the general public remains largely indifferent.

Obviously, none of these activities can be expected to reduce the incidence of sexual risk-taking and the unmarried births and dependency to which it leads. On the contrary, they should be expected to increase it, as indicated by the results of this study. The results, therefore, confirm Austrian economic reasoning and, indeed, what common sense would suggest.

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Notes and Replies

Statistical Malfeasance and Interpreting Economic Phenomena

Richard Vedder

It took seven decades, but most people now accept what Ludwig von Mises explained three quarters of a century ago, namely, that centrally directed socialistic economies cannot succeed in coordinating vast numbers of interrelated decisions, in large part because of the information problem arising from non-market forms of resource allocation (Mises 1920). No amount of input-output models generated on vast computers can overcome the problems of directing resources under changing conditions of wants and scarcity.

The information problem that plagued socialist states, like the old Soviet Union, persists in another form today in so-called "mixed" economies like the United States. While the price data generated by markets, as consumers and producers interact in a productive, if seemingly chaotic, discovery process, allow decentralized economic agents to make complex and ever-changing economic decisions without any central direction; governments try to generate data which aggregate economic activity over entire economies to assist the softer forms of economic planning that persists in most of the industrialized democracies—fiscal and monetary policy, environmental rules, governmentally mandated distortions in the use of energy resources, and so on.

On methodological grounds, Austrian economists reject the logical-positivism of most contemporary economics. Even if one were raised in a neoclassical tradition that places a high utility on evaluating economic phenomena in terms of some analogue of the scientific method present in the physical sciences, however, one should be wary of many modern research findings, owing to the inherent and probably insurmountable difficulties

of aggregating economic data. Bad data lead to bad conclusions, even if one accepts an activist economic philosophy that centralized decision making can improve on the spontaneous decisions made in the market economy. This paper presents five examples of how data problems can lead to a misinterpretation of economic phenomena, or at least promote great uncertainty in evaluating the direction and scope of economic change.

Example One: Are Wages Rising or Falling, or, Are Workers Being Exploited?

Public figures as politically diverse as former Labor Secretary Robert Reich, Pat Buchanan, and Ross Perot have argued that the standard of living of American workers has stagnated in recent decades. Reich blames it on greedy businessmen, while Buchanan and Perot claim that as a consequence of ill-considered free-trade policies, low-paid foreign workers are robbing Americans of their affluence. Is this unholy trinity right?

Using the method of mainstream economics, let us turn to the purported evidence to evaluate the scenarios of three economists whose names began with "M": Malthus, Marx, and Mises. Which economist do you like? Using contemporary data, I can give you evidence to support the views of any of them.

Go to the allegedly trusty source of current economic information, the *Economic Report of the President* (U.S. Council of Economic Advisers, various years). Turning to page 352 in the 1997 edition, the hourly average wage of private sector American workers in 1973, expressed in dollars of 1982 purchasing power, is stated to be $8.55. For 1996, it was only $7.43. Workers were making 13.1 percent less in 1996 than a generation earlier. On a weekly basis, the wage decline was even greater. This is evidence that Malthus was right. With population growth and the law of diminishing returns, wages are moving toward subsistence.

Or maybe Marx was right. Turning the page, we learn (page 354) that the output per hour in the same period has risen more than 30 percent.[1] Productivity was rising significantly even while wages were falling—we have a total refutation of the Austrian claim (Mises 1963, p. 597) that workers are paid according to their marginal productivity. We have progressively greater exploitation of the proletariat by greedy capitalists. If this scenario is true, Bill Gates and Sam Walton make capitalists like

the Vanderbilts and the Rockefellers look like Mother Teresa. Why did Marxism largely wither away (except in universities) when we needed it to explain the growing absolute and relative misery of the American worker?

Alas, there is another side to the story. Michael Boskin and some other distinguished number crunchers have concluded that the consumer price index used to calculate real-wage change overstates inflation by about 1.1 percentage points a year, and has done so for a long time.[2] Earlier, the price gurus at the Bureau of Labor Statistics as much as admitted that their CPI-U index suffered significantly by overstating housing prices after 1967, and concocted a CPI-U-X1 index. It was generally believed around 1980 that adopting the X1 procedures would improve factual accuracy, but our government did not do so because, among other things, it would have reduced Social Security cost-of-living benefit increases. Hence, for political reasons, the U.S. government continued to use an index that everyone says was wrong. Using the X1 index and reducing annual inflation rates by 1.1 percentage points annually, I calculated a new and presumably improved measure of changing rates of inflation (see appendix).

"Boskinizing" the data, real wages in fact rose 9.4 percent an hour from 1973 to 1996, rather than fell as officially reported. Using the method of contemporary mainstream economics, we can say that, empirically, the Malthusian—Marxian scenario described above has now taken a hit, but, alas, the wage growth is still well below the reported productivity growth of 30.2 percent. In other words, Marx is closer to the truth than Mises, or, for that matter, than Alfred Marshall.

Don't despair yet. Marx is about to take a big hit. Page 354 of the *Economic Report* covers "real compensation per hour" in the "business sector." This table incorporates into employee compensation the fringe benefits excluded from the wages measure, and thus is a more comprehensive measure of the remuneration that workers receive from their employers. Even using the flawed BLS data on inflation, it is revealed that real compensation per hour rose 9.1 percent from 1973 to 1996. So much for Malthus. Applying the X1 and Boskin adjustments to the CPI (see appendix), I calculate that real compensation per hour in fact rose 42.8 percent from 1973 to 1996. Workers are doing much better than their parents did a generation ago.

Has Mises been vindicated by the very quantitative approach that he disdained? Not exactly. Wages, broadly defined, are now

recorded as having risen faster than productivity. If correct, this implies that corporations are being financially squeezed by labor, either by accident or design. We have reverse Marxism—the proletariat is squashing the capitalists—the withering away of capitalism, if you will. Alternatively, a benevolent, "kinder and gentler" breed of entrepreneur is voluntarily turning over income to workers.

This latter conclusion, however, is murky, since it compares rising real compensation to productivity change. Productivity is defined in terms of real output per hour of work. Thus, the calculation of productivity involves using a price index, and if that index has been understated, then the recorded productivity growth has similarly been below reality. A large number of students of productivity data believe there is an understatement of modern productivity growth. Correcting for that misstatement, it is plausible and indeed likely that the real-wage data and the productivity data would show very similar upward trends, consistent with both Austrian and neoclassical traditions in economics. Mises is thus vindicated.

All of this reinforces Austrian concerns about attempting to verify or falsify economic propositions based on aggregative economic data. At the same time, as Professor McCloskey (1985) tells us, the rhetoric of modern economics includes heavy use of numbers and econometric manipulation of them. Only partly tongue in cheek, I think it is legitimate to use Austrian praxeological principles to clarify some of the existing statistical mayhem. To illustrate, accept the Austrian proposition that wages are determined by the marginal productivity of labor. The rate of growth in aggregate prices over time, then, would equal that growth necessary to be consistent with this Austrian proposition. If Boskin's 1.1 point adjustment to the CPI leads to wage growth exceeding productivity change, while no adjustment leads to productivity changes exceeding wage growth, the correct adjustment is one that equates these two measures, perhaps 0.5 or 0.7 percentage points. Since, given the rhetorical passion of economists for quantitative measures, we are going to use price indices; why not use Austrian insights to calculate them, even if Austrians themselves are disdainful of their use? I say this with some trepidation, ever mindful of Mises's magisterial injunction: "In the field of praxeology and economics no sense can be given to the notion of measurement"[3] (Mises 1966, p. 222).

Example Two:
The Worsening Post-World-War-II Depression [4]

Problems with price indices can lead to grotesque and changing interpretations of historical phenomena. According to the official national-income-account data, the nation had a huge downturn in 1946. Moreover, unique among downturns in American history, it continues to get worse—even after the downturn is over. In 1960, the U.S. Department of Commerce reported that the national output decline for 1946 had reached an extraordinary 14 percent. With the historical revisions reported in 1995 (U.S. Council of Economic Advisers), the calculated output decline for the year 1946 was 20.6 percent. This is greater than the accumulated reported decline for 1931 and 1932 during the darkest part of the Great Depression.

Yet, all of this happened while consumer spending was rising sharply, the unemployment rate was under 4 percent, and the stock market was registering double-digit gains, with the Standard and Poor industrial index reaching the highest level since 1929. The statistical fiction that official national-income indicators show reflects the switch from largely command, non-market-based output in 1945 to a much more market-determined output with a dramatically downsized public sector. The end of the wage-and-price controls meant that inflation moved from being disguised to being explicit. Perversities in the way the aggregate GDP price deflator is calculated meant that the shift from public to private activity substantially increased the recorded GDP price deflator for the economy. Over time, the difference in the reported increase in prices in the public and private sectors meant that the post-war shift back to private enterprise increased the aggregate price index *independent of price movements*.

Thus, revisions in statistics years after they are originally compiled do not always lead to greater accuracy. Given the fundamental problem of evaluating government activity that is not sold in markets, any aggregate output statistic is subject to considerable debate. As Robert Higgs (1992) has shown, under one very reasonable method of accounting, the Great Depression actually persisted until the mid-1940s, rather than decisively ending with America's entry into World War II.

Example Three:
Are We Undergoing Deindustrialization?

The contradictory data are present within a single edition of the *Economic Report of the President*. For example, some people have spoken about the "deindustrialization" of America, presumably referring to a sharp decline in the relative importance of manufacturing in the American economy. Using nominal data from page 312 of this year's report (U.S. Council of Economic Advisers 1997), this observation is confirmed, with manufacturing's share of gross domestic product falling by nearly one-fourth in just 17 years from 1977 to 1994 (from 22.81 to 17.27 percent). Looking at the next page (p. 313), where the data are expressed in real terms, one observes manufacturing's share of output falling only very modestly, from 18.61 to 17.68 percent of GDE Hardly major deindustrialization.

Example Four: Is Government Growing or Declining in Relative Size?

With respect to government, the conclusions are just the opposite. With the data expressed in real terms, the government by 1994 was about a 20 percent smaller proportion of the economy than in 1977; with nominal data, the decline was only one-third as great. Adding to the confusion, the measured change of relative size in government varies depending on whether one looks at tables B-1 and B-2, B-8 and B-9, or B-10 and B-11. Turning to data on total current expenditures of government on page 394, we learn that government as a percent of GDP, grew from about 30 to 32 percent from 1977 to 1994, reflecting the impact of income transfers not included in the basic GDP classifications. Moreover, none of these measures picks up the impact of coercive governmental regulation or mandates on the private sector, which almost certainly have grown in relative importance over time.

As with earlier examples, the hazards of price indexation contribute importantly to the contradictory findings. For example, the statistics supposedly correcting for inflation use an index for governmental services to deflate, which is, at best, a highly speculative exercise, given the non-market nature of governmental activity. In general, governmental services are valued in the GDP accounts by adding up compensation paid to employees, which is to say on payments to inputs rather than a valuation of output. Given the very high levels of economic rent present in much government employment, this is a doubly

dubious procedure. After all, one group of employees is not paid according to its marginal contribution to society, it is government employees (Cox and Brunelli 1994).

Example Five: Is the Economy Doing Well or Poorly?

Even most mainstream economists acknowledge significant difficulties with the measurement of aggregate economic performance. The official GDP statistics suggest that the worst post-war year in terms of total output change was 1946, while the best was 1951. The former year saw the nation convert from a wartime to a peacetime economy, and from a price-controlled economy to one in which prices were more or less free to fluctuate with market forces.

The exact reverse happened in 1951. The 1951 boom came in part by forcing human resources into employment at below-equilibrium wages—the military draft. The allegedly good performance came from coercive tactics, and by valuing an important part of output not by the subjective evaluations of consumers and producers, but by the non-market prices paid to governmentally directed inputs.

Even if one accepts the concept of GDP as a reasonable way of evaluating the performance of an economy, however, there are significant practical difficulties. I randomly selected the year 1993 for evaluation. In the *1994 Economic Report of the President*, it is reported that the 1993 GDP rose 2.9 percent—close to the long-term growth rate of somewhat over 3 percent. By 1995, the 1993 growth rate had been revised upward to a healthy 3.1 percent. The consensus was that 1993 was a pretty good year. The next year, the government changed its mind, deciding that GDP in 1993 rose but 2.2 percent, one of the lowest non-recessionary year growth rates in modern American economic history, and about 30 percent less growth than reported merely a year earlier. In 1997, the estimates were revised upward again slightly, to 2.3 percent. We not only had second thoughts about 1993, but third and fourth thoughts as well ended on December 31, 1993, and any change in its GDP after that date is an admission of prior statistical reporting error. The admitted errors are substantial.

All of this, of course, ignores the question of whether GDP, or any measure for that matter, is appropriate to evaluate aggregate economic performance. Consider the question: is the

American economy doing well today? Those answering that question affirmatively cite statistics showing low unemployment, high employment-population ratios, rising exports and industrial production, significant immigration of human and capital resources to the U.S., and a booming stock market. Yet, the standard national-income framework, I think, is more consistent with a "no" answer to that question. The latest in the ever-changing GDP statistics shows that annual real GDP change has varied from -1.0 to 3.5 percent in this decade, with the median being about 2.5 percent. The median growth in the 1960s was 4.5 percent, in the 1970s was 4.1 percent, and in the 1980s was 3.2 percent. If these numbers are to be believed, then the 1990s is easily the worst performing of recent decades. Moreover, the long-run secular trend seems to be ever-lower rates of economic growth. Will the real American economy please stand up?

You Don't Have to be an Austrian to be Austrian on Statistics

Even accepting the dominant method of modern economics, and believing that the use of empirical means to verily or falsify economic hypotheses is valid, the reality of data aggregation problems makes empirical exercises a hazardous and often dubious enterprise.

This comes as no surprise to Austrian economists. On basic theoretical grounds, the problems of generalizing with any precision about the magnitude of price changes are substantial. In Rothbard's (1993) "evenly rotating economy" with freely operating market forces, the issue of aggregate economic performance is one that is either irrelevant or of a second order of importance. If economic agents are freely expressing their economic will in their decision making, the existing level of economic performance *is* optimal, and whether it is larger or smaller than in other time periods is not very important.

The discussion above merely samples the problems of using aggregate economic statistics. Other examples abound; four will suffice. First, hundreds of billions of dollars of underground and non-market activity distort aggregate statistics on national income and domestic product. Second, the problem of estimating poverty rates is so entangled that the government itself in some years issues not only *the* poverty rate but some 29 other variations, with the top estimate being at least three times the lowest one (U.S. Department of Commerce, 1992). Third, the

national savings rate is radically different if one uses Federal Reserve data as opposed to Department of Commerce data.[5] Fourth, U.S. exports to Canada are reported as being significantly different from Canadian numbers on imports from the U.S. More generally, the "errors and omissions" component of balance-of-payments statistics is often huge in magnitude.[6]

Some aggregate statistics are no doubt reasonably reliable. For example, I trust the numbers on total steel production. Changes in the factor shares in aggregate national-income data probably give better insight into whether labor is earning its marginal product than the wage-productivity data discussed above. Basic data on individual interest rates or individual commodity prices are probably pretty good. Moreover, the private economy in its planning wants, and is willing to pay, to get some aggregate economic data, even mediocre data. That explains why otherwise sensible businessmen pay economists to do forecasts. If GDP didn't exist, someone would invent it.

The statistical mayhem described above suggests that one can find data to support almost any economic theory. The notion that mainstream economists practice science while Austrian economists are more like theologians is, at the very least, an exaggeration. Many mainstream economists selectively use data to defend preconceived positions. They try to add legitimacy to often bankrupt intellectual positions by invoking the mantle of science. On average, I think, Austrians are more straightforward and intellectually honest. The moral of my little story, then, is: beware, government statistics may be injurious to your economic health. Treat them gingerly and with suspicion, as Austrian economists have long done. Indeed, when it comes to government statistics, ignorance often may well be bliss.

Appendix

Below is the official CPI-U (1982–84 = 100) and the author's reconstruction of it incorporating the XI and Boskin price adjustments.

Date	CPI-U	CPI-U-X1 - BOSKINIZED
1973	44.4	50.3
1974	49.3	55.4
1975	53.8	59.7
1976	56.9	62.0

1977	60.6	65.3
1978	65.2	69.5
1979	72.6	75.8
1980	82.4	85.2
1981	90.9	93.1
1982	96.5	97.8
1983	99.6	99.8
1984	103.9	102.4
1985	107.6	104.9
1986	109.6	105.8
1987	113.6	108.5
1988	118.3	111.7
1989	124.0	115.8
1990	130.7	120.8
1991	136.2	124.6
1992	140.3	127.6
1993	144.5	129.4
1994	148.2	131.3
1995	152.4	133.3
1996	156.9	136.1

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[1] Output per hour in the "business sector" shows an increase of 30.2 percent from 1973 to 1996. The 1996 figure was assumed to be the average of the second and third quarters of the year. Using data for the "nonfarm business sector," the increase is only 25.8 percent. Implicit in the difference between these two estimates is farm-sector productivity growth of a huge magnitude (perhaps 100 percent), given the relatively small size of that sector.

[2] For a discussion by mainstream economists of problems with the consumer price index, see the *1997 Economic Report of the President*, pp. 67–72.

[3] Mises's views were anticipated by the English economist J.E. Cairnes (1888). See also Rothbard (1993), chap. 5.

[4] See Vedder and Gallaway (1991, 1997) for a more detailed analysis of this example.

[5] To illustrate this, it is best to go to the *Statistical Abstract of the United States* (U.S. Department of Commerce, Washington, D.C.: U.S. Government Printing Office, 1997). Compare the data on changing financial assets in Table 771 with those in Table 697. Household net financial assets in, say, 1993, rose by $752 billion in Table 771, but "personal savings" in Table 697 was only $216.4 billion—a difference of a factor of more than three.

[6] In the *1997 Economic Report of the President* (p. 415), the median statistical discrepancy (ignoring the direction of the discrepancy) in the years 1989 through 1995 was $31.5 billion, nearly as much as the nation's purported "unilateral transfers."

Some Austrian Perspectives on Unintended Consequences

Lowell Gallaway

One of the most overused notions in this about-to-expire century, is the concept of "unintended consequences." In its strongest form, it emerges as the Law of Unintended Consequences, a generalized explanation for a host of public policy failures in American society. A seemingly innocent enough concept, it attempts to explain away why so many ventures into the realm of formulating public policy have gone awry, by asserting that things didn't happen the way policymakers thought and "intended" that they would. (As if this excuses the nonsense that has passed as policy in our time.) In the vernacular, this is nothing but a "cop-out," a *deus ex machina* that disguises the true source of failed public policy—a refusal to appreciate the full implications and ramifications of public policy initiatives for human action.[1]

The choice of the words "human action" is not casual. It is symbolic, intending to call to mind the Austrian traditions of subjectivism and individualism. This is in contrast to the conventional social science approach of thinking in terms of mechanical analogues that seemingly parallel the physical, or "hard," sciences. The adverb "seemingly" is employed in fairness to the physical sciences. All too often, the parallelism that social scientists attempt to draw between their work and that of the physical sciences involves mere parodies of what the "hard" sciences do.

Example One: Tax Revenues and Tax Rates

Let us illustrate the pitfalls associated with this kind of crude mechanistic approach to economic phenomena. A marvelous example occurs in the area of anticipating the impact of changes in tax rates on the amount of revenues collected from the tax in question. What is involved here, depending on the direction of change in tax rates, is one of two basic principles: (1) If you tax

something, you get less of it, or, (2) If you subsidize something, you get more of it.

Both of these notions derive from a very simple idea, namely, that individuals take the tax burden into account before choosing their work and entrepreneurial effort. The significance of these propositions is borne out by some very simple numbers produced by recent American experience.

What is reported is the percentage that personal tax and non-tax Federal government receipts, almost exclusively from the personal income tax, were of nominal (not real) Gross Domestic Product for three dates, 1979, 1989, and 1995.[2] These are all years of relatively high levels of economic activity. In 1979, these revenues amounted to 8.98 percent of GDP. Ten years later, following at least a 25 percent reduction in tax rates and the introduction of indexation of the tax rate schedules, they stood at 8.52 percent of GDP, a decline of only 5.79 percent, instead of the expected 25 percent. Almost 80 percent of the potential decline in revenues from the income tax rate cuts of the 1980s had been offset by the dynamic effects of individuals responding to the cuts by increasing their work and entrepreneurial effort.

Move on to 1995. In the interval since 1989, there were two increases in personal income tax rates. What happened to the share of personal tax revenues out of GDP? It actually fell slightly, coming in at 8.48 percent as people adjusted their economic efforts to take account of higher tax rates.

There is a lesson to be learned here, one that those among us with some familiarity with American economic history and an appreciation for the role of individual behavior in shaping economic events already know. In recent years, it has been popularized in the form of the Laffer Curve.[3] More generally, though, the lesson is that human behavioral responses to changes in economic parameters frequently lead to non-monotonic, that is Laffer-type, outcomes.

An Aside on “Mainstream” Economists

Apparently, the lesson just described is little understood by a substantial portion of the American economics profession. Just last September, some 546 economists, including seven Nobel laureates, signed a public statement released by the Economic Policy Institute in Washington, D.C., asserting the following[4]:

> (1) the assumption that a substantial part of the revenue lost by reducing taxes will be offset by new revenues from additional growth is not credible.
>
> (2) The . . . tax-cuts of the early 1980s were based on [this] claim, but . . . no sustainable increase of growth of supply took place.
>
> (3) The . . . tax-cuts of the early 1980s were appropriately called a riverboat gamble. The country lost a wager. . . . We appeal to our fellow citizens and our potential leaders not to repeat the tragic mistake.

This statement was circulated by Paul Samuelson, James Tobin, Kenneth Arrow, Franco Modigliani, and Robert Solow.

C'est la vie. Never mind that our imperfectly measured economic growth averaged 3.2 percent between 1981 and 1989, compared to 2.4 percent in the previous eight years and 1.8 percent since. This "sustained growth in supply" was just sufficient to insure that, in the long run, there was no decline in tax revenues associated with the reductions in income tax rates that took place in the 1980s. On the other hand, the end result of the tax increases of the 1990s was a fall in revenue of about 9 percent. Talk about unintended consequences.

Example Two: Income Maintenance and Poverty

The tax episode is not the only instance of economists and policy-makers ignoring individual behavioral responses to changes in economic circumstances. Let us go back in time a third of a century, to the early and mid-1960s. The poverty issue becomes the crisis *du jour* for the intellectual and policy elites, and becomes enshrined in American history in the form of Lyndon Johnson's euphemism, "The War on Poverty." The basic premise of the first generation of poverty warriors was that America's relatively disadvantaged were becoming increasingly isolated from the mainstream of economic and social life in the United States. In short, the argument was made that a permanent underclass would emerge in America unless substantial policy interventions were implemented.

Initially, the rhetoric surrounding the proposed public policy

initiatives was opposed to income transfers, *per se*, focusing instead on programs that supposedly would better equip the economically disadvantaged to participate in American economic life. For example, in February 1962, the *New York Times* commented (favorably) on John Kennedy's message to Congress that accompanied his proposals for welfare reform. It noted that the President's position "stems from a recognition that no lasting solution to the [poverty] problem can be bought with a welfare check."[5] As to Lyndon Johnson, when he signed the first substantial anti-poverty legislation in August 1964, he proclaimed, "the days of the dole in this country are numbered."[6] I use this statement frequently in my Economics of Poverty class, and I can never resist adding something to it, namely, that, "Unfortunately, Lyndon forgot to tell us that it was a very, very, large number," now approaching 12,000. Within two years of the passage of the 1964 legislation, a monumental escalation of the volume of Federal public aid (in real terms) occurred. Between 1954 and 1966, the *per capita* volume of such aid roughly doubled, an annual growth rate of about 6 percent. In the next 12 years, it *doubled not once, but twice, representing annual growth of about 12 percent*.[7]

Refer back to the two basic propositions mentioned earlier. In this case, we have a subsidization of non-work effort. The expected outcome of this is an increase in the volume of non-work effort and a decrease in work activity. As Walter Williams once said, "The poor may be poor, but they are not stupid."[8] The behavioral changes brought on by the escalation of subsidies for not working impacted dramatically on another of our terribly flawed government statistics—the poverty rate, which is measured by a paradigm that counts only cash—money income towards meeting the poverty threshold. Since a large part of public aid expenditures are not in the form of cash money, the work disincentive effects associated with public aid will at some point lead to a reduction in the money income of the poor. Because of this, as the volume of public aid increased after 1966, the decline in the poverty rate first slowed, then stopped, and, ultimately, began to increase, producing another Laffer-style relationship, one that Professor Vedder and I have called, "The Poverty-Welfare Curve."[9] Just one more unintended consequence.

Example Three:
The Distribution of Income

One more example is appropriate. As we have moved through the twentieth century, the rhetoric of "envy" has become progressively more strident. Perhaps it was inevitable once the United States committed itself to a "progressive" income tax. Given the potential of the income tax to raise revenue and its avowed philosophy of taxing the "rich" more heavily than the "non-rich," the development of a tax-and-transfer mode of government was predictable. The ultimate justification for a tax-and-transfer society is expressed quite well in a quote from the most recent *Economic Report of the President*[10]:

> Without government intervention, the distribution of income would be even more dispersed than it is. A progressive Federal income tax and a variety of Federal and State transfer programs have for decades worked to reduce inequality.

This allegation appears plausible, at first glance. However, reflect on the contents of the previous section of this paper, where it was noted that individual behavioral responses to the provision on income transfers not only negated their supposed beneficial effects in reducing poverty but actually increased the number of people officially recorded as being among the poverty population. Apparently, the same thing happens with respect to the distribution of income.

Once more I will refer to some empirical data. In 1969, income transfers to persons in the United States amounted to 9 percent of all personal income. Twenty-five years later, that figure was 16.6 percent.[11] What happened to income inequality over this interval? Using a very simple measure of inequality, the ratio of mean income of the bottom 20 percent, it increased substantially. This ratio rose by almost 45 percent between 1969 and 1994.[12] Once more, we have an "unintended consequence" emanating from a public policy initiative.

The Curse of "Unintended Consequences"

The three examples outlined here illustrate a very basic point, namely, that a failure to take into account behavioral responses in structuring public policy leads to results that are often the opposite of what the rhetoric of the public policy debate suggests will happen. The instinctive response to this is usually, "How unfortunate. The designers of the public policy meant well. Their

motives were good. We shouldn't think badly of them for their efforts." But, were their motives really good? Perhaps one mistake of this sort would be understandable, but multiple ones, in the face of powerful evidence documenting the nature of the errors? That is another matter. Perhaps the Law of Unintended Consequences should be relabeled, The Law of Deliberately Ignored Consequences.

Why, though, would policymakers wish to ignore the consequences of their actions? The answer to that query is simple. More often than not, this behavior supports an even more fundamental agenda of the public policy elites, the expansion of the role of government in social and economic affairs. Think of how convenient it is. Define a problem. Propose a solution that has the effect of expanding the role of government. In the goodness of time, the solution makes the problem worse, which permits the policy advocates to claim that the problem is more serious than originally thought, and that the initial government response was inadequate to deal with it. The obvious solution is to have the government devote even more resources to solving the problem. There is a parallel here with the bloodletting practices of medieval "doctors." They would "bleed" the ill, which would have the "unintended consequence" of weakening them, making them become more ill, which would then become the rationale for bleeding them again, and again, and again, until they died. At that point, the doctors would note that the patient was sicker than they had thought.

But what about data such as those I have just cited? How do the policy elites deal with this? Simply ignore them. There is a delicious bit of irony here. In the past, I have heard Austrian economists caricatured as being people who say if the numbers don't agree with the theory, so much the worse for the numbers, implying that they are "non-scientific" ideologues. However, that is exactly how the policy elites, and much of the mainstream of the economics profession, behave. They often fit almost perfectly that very caricature. Take the earlier aside about the Nobel laureates introduced toward the beginning of this paper. There are a number of empirical studies that say there is a significant dynamic effect associated with income tax-rate changes that mutes the static impacts on revenue. Yet, these people, in effect, take the stance that since these numbers do not agree with their conceptual paradigm, so much the worse for the numbers. Or, take the case of the statement from the *Economic Report of the President* about the effect of government on the distribution of

income. This was released under the signature of Joseph Stiglitz, a distinctly mainstream economist.

Further, I simply can't resist reporting two more classic instances of the mainstream types blatantly ignoring numbers that contradicted their basic theoretical notions. The first takes place in 1947. Lawrence Klein, future Nobel laureate and pioneer in the construction of macroeconometric models, has just had published his book, *The Keynesian Revolution*.[13] In dealing with two empirical studies, one by Lorie Tarshis and the other by John Dunlop,[14] that challenged a casual empirical observation made by John Maynard Keynes in *The General Theory*,[15] Klein blithely dismisses them with the remark, "Our main concern is not with the empirical problem, but with the theoretical."[16]

My second example is taken from some private correspondence with another Nobel laureate, Kenneth Arrow.[17] The beginning sentence of one of his letters starts, "I have not had time to consider the empirical issues in determining what relation, if any, exists between inflation, GDP growth, and excess capacity." Having said that, he then proceeds to pontificate for almost two pages as to what the relationships are. Just as with Lawrence Klein, the attitude seemed to be, "Don't bother me with the data."

There is an unfortunate aspect to all this: numbers have a certain power about them. They often dominate the rhetorical playing fields of both intellectual and policy debate. If the Austrian community abjures this rhetorical device, it concedes a good deal to those who will use numbers selectively to pursue an agenda that is at odds with the conclusions derived from the Austrian deducto-logical framework. In the process, they will allow these purveyors of misinformation a significant advantage as they pursue their statist agenda. In short, it might be well for Austrians to heed the advice of Robert Higgs, given at the conclusion of a piece assessing the New Economic History, namely[18]

> these findings can serve as valuable material for Austrians practicing their own distinctive style of interpretive economic history.

It may seem that I am delivering something of a schizophrenic message. On the one hand, I have suggested that, from the methodological standpoint, Austrians have a good deal of company among the mainstream economists who often, especially in the instances described by the rubric The Law of

Unintended Consequences, deny the validity of numbers that do not accord with their analytical perspective. On the other hand, I suggest that Austrians place themselves at a decided disadvantage in public policy debates if they ignore the rhetorical power of numbers.

This suggests a dilemma. What to do? All I can offer as a solution is an anecdote. In the summer of 1983, Professor Vedder and I had an extended conversation with Murray Rothbard in Palo Alto, California, concerning our paper that was published in the first issue of the *Review of Austrian Economics*. At one juncture, I pointed out to Murray that there were regression equations in the paper and asked whether that would be a problem. His response, as nearly as I remember was, "No! You guys do econometrics right." What did Murray mean by that? While I can't be sure, I suspect he was suggesting the inverse of the logical-positivist approach to knowledge, that is, rather than testing the validity of theories by consulting the evidence, you test the validity of the evidence by observing how well it fits the theory.

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[1] Of course, the phrase human action brings to mind Ludwig von Mises's tome, *Human Action: A Treatise on Economics* (Chicago: Henry Regnery, 1966).

[2] The basic data are from the National Income and Product Accounts, U.S. Department of Commerce, Bureau of Economic Analysis. See *Economic Report of the President* (Washington, D.C.: U.S. Government Printing Office, 1977), table B-80, p. 393.

[3] Current interest in the Laffer Curve concept is rising. In the week following the presentation of this article, a conference with the theme "Innovative Applications of the Laffer Curve" was held in Washington, D.C.

[4] Press release tide *546 Prominent Economists Oppose Dole Tax Cuts: Plan's Assumptions "Not Credible" According to Group* (Washington, D.C.: Economic Policy Institute, September 24, 1996).

[5] "Relief is no Solution," *New York Times*, February 2,

1962.

[6] "Johnson Signs Bill to Fight Poverty: Pledges New Era," *New York Times*, August 21, 1964.

[7] For details of the escalation, see Lowell Gallaway and Richard Vedder, *Poverty, Income Distribution, the Family, and Public Policy* (Washington, D.C.: U.S. Government Printing Office, 1986), pp. 36–37.

[8] This remark was made in a personal conversation during a visit to the Ohio University campus by Professor Williams in October 1986.

[9] The Poverty—Welfare Curve was introduced at a June 20, 1985, hearing held by the Joint Economic Committee of the U.S. Congress. See Lowell Gallaway, Richard Vedder, and Therese Foster, "The 'New' Structural Poverty: A Quantitative Analysis, in *War on Poverty—Victory or Defeat?*" (Washington, D.C.: U.S. Government Printing Office, 1986).

[10] *Economic Report of the President*, 1977.

[11] Ibid., table B-27, p. 331.

[12] Based on data reported in *Current Population Reports*, Series P-60, Income and Statistics Branch/HHES Division.

[13] Lawrence R. Klein, *The Keynesian Revolution* (New York: Macmillan, 1947).

[14] Lorie Tarshis, "Changes in Real and Money Wages," *Economic Journal* 49 (1939): 150–54, and John Dunlop, "The Movement of Real and Money-Wage Rates," *Economic Journal* 48 (1938): 413–34.

[15] Keynes's remark may be found in chapter 2 of his *The General Theory of Employment, Interest, and Money* (New York: Harcourt Brace, 1935). Specifically, on page 10, he offers the following opinion, "I think that the change in real wages associated with a change in money-wages, so far from being usually in the same direction, is almost always in the opposite direction." Tarshis and Dunlop, "The Movement of Real and Money Rates," found that in both the United States (Tarshis) and Britain (Dunlop), real and money-wage rates were significantly *positively* correlated.

[16] Keynes, *The General Theory*.

[17] Letter, dated December 29, 1992, from Kenneth Arrow to Lowell Gallaway [sic].

[18] Robert Higgs, "Austrian Economics and the New Economic History," *Austrian Economics Newsletter* (Summer 1995): 2–3.

Block's Erroneous Interpretations

Harold Demsetz

Walter Block has absorbed 64 pages of *The Review of Austrian Economics*[1] to attack a 19-page paper I wrote.[2] This is his second outburst. The first, to which my 1979 paper was partly a response, appeared in *The Journal of Libertarian Studies*.[3] Block should have put this matter behind him rather than stewing over it for the 16 years between his current reply and my 1979 paper. I learn nothing from reading his part of this debate, and apparently he learns nothing from reading my part, so I write this reluctantly and refuse to join in any future similar exercise in futility.

In my response to his first paper, I wrote both about the error in his economics and the naiveté in the moral positions he took. I invite the reader to consult the above-referenced papers if he or she desires to know more about the moral issue. My intent here is to write briefly and to confine my comments to the central economic arguments made by Block in his latest critique. Block's rumination on morals merits no response from me.

The economic argument concerns Coase's[4] analysis of the resource-allocation consequences of alternative assignments of ownership rights. His well-known analysis presented a view of the externality problem different from that held by Pigou (and, at the time Coase wrote, from that held by the economics profession). In the introduction to my 1967 paper "Toward A Theory of Property Rights,"[5] I referred to Coase's analysis to show its applicability beyond Pigouvian-type externality situations, briefly noting military recruitment as an example:

> The taxpayer benefits [from a military draft] by not paying the full cost of staffing the armed services. The costs that he escapes are the additional sums that would be needed to acquire men voluntarily for the services or those sums that would be offered as payment by draftees to taxpayers in order to be exempted. With either voluntary recruitment, the "buy-him-in" system, or a "let-him-buy-his-way-out"

> system, the full cost of recruitment would be brought to bear on taxpayers. . . .
>
> A law that establishes the right of a person to his freedom would necessitate a payment on the part of . . . the taxpayer sufficient to cover the cost of using that person's labor if his services are to be obtained. The costs of labor thus become internalized in the . . . taxpayer's decisions. Alternatively, a law that gives the . . . taxpayer clear tide to slave labor would necessitate that the slave owners take into account the sums that slaves are willing to pay for their freedom. These costs thus become internalized in decisions although wealth is distributed differently in the two cases. All that is needed for internalization in either case is ownership which includes the right of sale . . .
>
> There are two striking implications of this process that are true in a world of zero transaction costs. The output mix that results when the exchange of property rights is allowed is efficient and the mix is independent of who is assigned ownership (except that different wealth distributions may result in different demands).[6]

This example, for reasons known better to Block than to me, led him to make the following outrageous charge: "I shall then consider what can only be considered immoral implications Demsetz draws from Coase's view of property."[7] On this score, I note only that my conclusions were an exercise in positive economics, but if one truly desired to detect my preferences, as between the alternatives considered, all he would need to observe is where I placed the words "freedom" and "slave" in the above quotation. The positive economic conclusions I drew from this example contained nothing really new. They are simple extensions of, and in accord with, conclusions drawn by Coase in his analysis of Pigouvian externalities. What is novel is the non-Pigouvian context.

Block's strategy in his newest critique is two-fold. First, he seeks to separate Coase and Demsetz, claiming that his original critique of positive economics properly applies only to Coase's conclusions, not to mine. He makes this distinction simply because Coase was not as explicit as I was in the parenthetic reference to income effects in the above quotation. I note that he

did not separate Coase and Demsetz in his original critique. Having defended his earlier attack on Coase, the second step in his present critique is to extend the coverage of his complaint to even my conclusions. I consider these steps in turn.

To separate Coase and me, Block serves up his interpretation of Coase's writings. His claim is that Coase's conclusions are invalid because Coase makes no statement equivalent to mine in its explicitness in regard to income effects. Coase, of course, is quite capable of speaking for himself, but I find Block's interpretation of Coase quite unreasonable and quite lacking in any real attempt at understanding. Coase's statement about the consequences (in a zero-transaction cost case) of a court's decision regarding the right to control an externality-relevant resource is that the decision "would not affect the allocation of resources but would merely alter the distribution of income" as between the two parties, plaintiff and defendant. [8]

Persons trained in economics, which is the audience Coase was addressing, would know that an alteration in income distribution generally implies a change in resource allocation, simply because the two parties before the court spend their incomes differently. Coase should have no need to make this point explicit. Block takes the opportunity afforded him by the incompleteness of Coase's exposition to interpret Coase as claiming that different incomes result from the court's decision, but that these differences in income generate no derivative effects on resource allocation.

Block is entitled to his interpretation, but it is unreasonable. A reader seeking to understand Coase could easily understand why he does not waste words on the obvious. He is dealing with Pigouvian *efficiency* conclusions in regard to externalities. One could simply modify the quotation from Coase by rewriting the first phrase to read "Would not affect the *efficiency* of the allocation of resources." This would be entirely within the spirit of Coase's article, and is an accurate reflection of Coase's disagreement with Pigou. The modified statement completely undermines Block's criticism of Coase. Incomes might be altered by the court's decisions, and these altered incomes would affect resource allocation, but they would not affect the efficiency of resource allocation. After all, it is the efficiency of allocation, not the specific allocation of resources, that is Pigou's issue.

Perhaps more important, the misallocation in resources that Pigou (and the profession) saw as a consequence of externalities *has nothing to do with changed consumption expenditures resulting*

from altered incomes. For Pigou, a laundry cleans too few clothes and a neighboring factory produces too much output because the factory owner fails to take account of the costs that soot from his factory imposes on the laundry owner's operations. The inefficiency does not come from the reduced consumption that might follow from the greater poverty in which the laundry owner finds himself as a result of soot from the factory. In demonstrating the error in Pigou's logic, it is only necessary for Coase to show that all costs of the interaction between the parties are taken into account. A laundry owner made wealthier by a court's decision in his favor spends more on a variety of goods, and a factory owner made poorer by the same decision spends less on a different variety of goods, but what has this to do with the logic that connected externalities to inefficiency? Absolutely nothing. It would have been a waste of time for both Coase and his readers to use several paragraphs to discuss the changed pattern of expenditures that can result from a change in the distribution of income, only then to deny its relevance to the externality question. Hence, he simply writes that the court's decisions can alter the wealth between the two parties. Block, in his most recent critique, uses Coase's brevity to support a claim that Coase, although he noted the change in income distribution that would result from the court's decision, erred by not concluding that, as a result, resource allocation would be affected. But it is Block who is wrong, for he confuses the changed consumption patterns that accompany a redistribution of wealth with the Pigouvian logic that derives an inefficient alteration in resource allocation from the failure of one party to take into account the effect his activity is having on the production cost of a second party.

The second statement referred to by Block is one used by me in commenting on his first criticism of the logic used by Coase and me:

> The substantive issue has to do with whether or not the assignment of right ownership will alter the mix of output when "bargaining transactions . . . are costless [and] changes in the distribution of wealth . . . can be ignored." Coase and I [with a proviso about "free riders"] say no; Block says yes.[9]

I clearly state that an unaltered mix of output requires both that transaction cost should be zero, and the income effects should be absent, so Block cannot level at me the same trivial debating

point he levels at Coase. He is required, if I am to be found in error, to show that a change in resource allocation follows from a change in ownership identity, and that this does not result from positive transaction cost or an income effect. To do this, he again trivializes the issue, this time by renaming income effects as psychic effects.

The case in point is an interaction between a factory and a neighboring homeowner. Soot descends on the neighbor's soil, making it unfit to grow a garden. The neighbor, if he owns the right to control the soot content of air, refuses to allow the next door factory to put soot into the air, and he does so even if the factory offers him a sum equal to the cost to it of installing a smoke stack soot cleaner. This clearly reveals that in this state of affairs, the gardener puts a higher value on his garden than the sum he foregoes. Suppose, however, that the factory has the right to control the soot content of the air. To preserve his garden now, the gardener must pay the factory to have it remove soot from the air. However, his wealth position is such that he cannot afford to pay for the installation of the soot cleaner even if he were to devote his entire wealth to the task. Hence, if he owns the right to control the soot content, there is a garden and no soot. If the factory owns the right, there is soot and no garden. Resource allocation is altered, yet we are assuming no cost of negotiating between the two parties. Has an income effect produced the reallocation? I say yes. Block says no. He writes:

> All that is necessary is that there be an otherwise penniless farmer who derives more value from his flower bed than the cost of installing a smoke prevention device, and cannot bribe the factory to install it, even though he inhabits a zero transaction costs world. He cannot do so . . . because even though his psychic income [from a garden] is $100,000, and the smoke prevention device costs a mere $75,000, this psychic income is specific to him and him alone. It does not translate into a value recognized by anyone else, particularly including the factory owner. He cannot sell this flower bed to a third party, and use the proceeds to bribe the factory owner. This is because the flower bed, his only possession, is not valued by anyone else besides himself. . . . It is impossible for him to "give up $75,000 of the other goods" (as claimed by

> Demsetz in his indifference curve analysis) because he simply does not have such funds available to him.[10]

The last phrase "because he simply does not have such funds available to him" sounds like an income effect to me. If the gardener possessed much wealth, he would buy the clean air his garden needs, but if he is poverty-stricken he will not. That he will not because he "cannot" does not make this any less an income effect. From the perspective of the economic analysis of income effects, there is no difference between a person not purchasing good X because he desires to spend his wealth on other goods and a person not purchasing good X because he hasn't the wealth to make the purchase. In both cases, more of good X will be purchased if more wealth is provided to this person.

Consider the last sentence in the quote from Block more fully, because it misrepresents my indifference-curve analysis. The figure from my paper referred to by Block conveyed the following message. It says that if the gardener owns the right to control the soot content of the air, he can have his garden and still continue to consume as much of other goods as has been his habit. Alternatively, he can give the garden up by selling permission to the factory owner to put soot in the air, in which case, because of the payment he receives, he can buy $75,000 of other goods. This is $75,000 more of other goods than he could have bought by doing without his garden if he did *not* have the right to control the soot content of the air (but the factory owner did). This clearly establishes that the gardener's budget constraint is different under the two possible court decisions, and that is what I portray in the indifference curve figure to which Block refers. It should be obvious to everyone (other than Block) that the right to control soot content is valuable. Hence, the court's decision does alter the wealth of the parties. That the gardener is too poor to buy clean air when he does not possess this right cannot constitute a denial of this wealth effect. That he does buy clean air when he possesses this right is clear from the fact that he forsakes the $75,000 he could have received were he willing to tolerate soot (and the loss of his garden).

Why is he willing to buy the garden by foregoing $75,000 if he owns the right but not if the factory owns the right? Since we are assuming that his preference map has remained unchanged across the court-determined alternatives, the explanation for his

changed behavior can only reside in the altered position of his budget constraint. His refusal to accept the receipt of $75,000 to give up his garden (if he possesses the right) is an implicit cost to him of retaining the garden. In effect, contrary to Block's assertion about the gardener's inability to sell the garden to anyone, the garden can be sold to the factory for $75,000. If the gardener does not possess the right to control the soot content of the air, this implicit $75,000 is converted to an explicit cost of retaining the garden, for now the gardener must pay $75,000 to the factory owner to secure the needed reduction in soot. Hence, the price to retain the garden is the same in both cases, $75,000, but in one case this price is measured by income foregone and in the other case by income spent. This conversion from implicit to explicit cost *is* a reflection of the altered distribution of wealth wrought by the court. With the gardener's utility map unchanged and the price for retaining the garden unaffected by the court's decision (i.e., implicit and explicit cost are simply two different ways in which this $75,000 price enters the utility maximization equation), the gardener's changed behavior can only result from the wealth effect that accompanies the switch from an implicit to an explicit cost.

Block cannot deny the altered behavior, because this is necessary for him to claim that resource allocation has been changed as a result of the court's decision, but he cannot attribute the change either to transaction cost or to income effect if he is to sustain his refutation of my conclusion. Wealth clearly has been changed by the court's decision, the gardener's utility function has not been changed, and the price of the garden, $75,000, has not been changed. Well, there seems nothing left for Block to do than to admit that resource allocation has changed because of an income effect.

How does Block maintain his critique? Why, by changing the name of the income effect to that of psychic effect. Block's discussion of psychic value versus market value is the way he slips this change into the discussion. But, why is psychic value exercised one way if the gardener owns the right to control soot content and exercised the other way if the gardener does not? Is his case any different from someone who thinks a building is underpriced by the market but refuses to buy it because he is too poor, and then, after inheriting some wealth, makes the purchase? Does it matter to the definition of income effects in economics whether the reason he believes the building is undervalued is (a) because he thinks he can generate higher

money income (than "the market" thinks) from renting the space out or (b) because (although the market estimate of income is correct) he derives additional "non-marketable" personal utility from his being identified as the owner of this particular building? There is no analytical difference between these cases, and they are both properly classified as income effects when associated with the change in this person's behavior that results from his inheritance.

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[1] Walter Block, "Ethics, Efficiency, Coasian Property Rights, and Psychic Income: A Reply to Demsetz," *Review of Austrian Economics* 8, no. 2 (1995): 61–125.

[2] Harold Demsetz, "Ethics and Efficiency in Property Rights Systems," in *Time, Uncertainty and Disequilibrium: Explorations of Austrian Themes*, Mario Rizzo, ed. (Lexington, Mass.: D. C. Heath, 1979), pp. 97–116.

[3] Walter Block, "Coase and Demsetz on Private Property Rights," *Journal of Libertarian Studies* 1, no. 2 (Spring 1977): 111–15.

[4] Ronald Coase, "The Problem of Social Cost," *Journal of Law and Economics* 3 (1960): 1–44.

[5] Harold Demsetz, "Toward a Theory of Property Rights," *American Economic Review* 57 (1967): 347–59.

[6] Ibid.: 349. The parenthetic phrase is contained in the original.

[7] Block, "Coase and Demsetz on Private Property Rights": 111.

[8] Coase, "The Problem of Social Cost": 5, cited in Block, "Ethics, Efficiency, Coasian Property Rights, and Psychic Income": 64.

[9] Demsetz, "Ethics and Efficiency in Property Rights Systems": 98.

[10] Block, "Ethics, Efficiency, Coasian Property Rights, and Psychic Income: A Reply to Demsetz": 71.

Fiat Money as an Administrative Good

Yuri Kuznetsov

Hans-Hermann Hoppe, in his excellent article "How Is Fiat Money Possible?—or, The Devolution of Money and Credit,"[1] explained that fiat money can come into existence through the progressive degeneration of commodity money substitutes. I would like to suggest an additional scenario by which fiat money can come about, a scenario which may be useful for understanding some events in recent Russian history.

Imagine a community with a barter economy where a group of men are permitted to impose a great deal of violence on their fellow citizens. Let's call this group the State. The State prints paper tickets denominated in numbers, passes them out to the population, and declares that everyone must hand over a certain amount of these tickets to the State or face a harsh punishment, say, five years in prison. When the State acquires these tickets, it exchanges them for goods and services.

The tickets distributed in this way have some important properties. First, they have an initial use-value for members of the community (excluding members of the State): they can be used as a means of rescuing oneself from physical violence. Second, they are very marketable because they can be distributed in any denomination (divisibility). Third, they are small and do not weigh much (transportability). Fourth, they are universally desirable because no one wants to be in prison.

These properties make the tickets very competitive in the Mengerian process of the origination of money. The State could increase its chances of winning the competition with other monies by restricting the ability of people to contract with competing commodities like gold and silver. This step, however, is not necessary provided the sanctions for not paying the tribute are sufficiently severe and unavoidable.

In other words, fiat money can originate by the Mengerian process of selection, but only if it can be exchanged for specific goods, such as the ability to escape aggressive violence. Thus, governmental taxation provides one means by which fiat money could come into existence. Indeed, in our scenario, taxation is

the essential cause of the money's origin.

This fiat money is not irredeemable. It is *redeemable* in a peculiar commodity: an escape from violence. Clearly, this is not money based on mutual confidence and consent, and neither does it conform to Hoppe's strictures against injustice in the process of money origination.[2]

It is worth noting that in reality, the nature of the *commodity backing* is rather indistinct. Enforcement of any decree is never fully guaranteed. Anyone deciding whether to pay or not to pay a tax always takes into account the probability of being punished for the failure to pay. This probability, in turn, depends on various factors influencing the efficiency of the government's machinery of violence.

Reorganizing various policing agencies and tax-collecting departments, anti-corruption campaigns, and other political disturbances could considerably change the subjective valuations of this money's market value. These phenomena, along with inflation, could be an additional source of financial instability.

This scenario may appear to be rather abstract and far from real life. But this appears to me to not be the case. This mental construction is a useful device for interpreting recent events of Russian economic history.

According to a number of Russian economists, the late Soviet economic system might be properly described as an administrative market—a kind of barter economy where not only usual goods and services are marketable, but so are such peculiar items as contents of governmental regulations and planning directives, the opportunity to violate them without penalty, official posts in the state apparatus, and so on.[3] Such peculiar *commodities* might be named administrative goods, because their value for economic actors is rooted in the ability of the State to use violence, and of everyone else to avoid this violence under certain conditions.

The *barter* character of Soviet economics is synonymous with its non-monetary nature. There were no media of exchange. The Soviet rubles in no sense could be called *money*. However, Gregory Gaidar's reform in 1992 not only abrogated some regulations (the determination of prices in rubles by government), but also monetized the Russian economy. The newly created money was a fiat money backed by *administrative goods* according to our definition.

The scenario I have described approximates the real process of the creation of fiat money in the Russian economy during the

reforms from 1990 to the present. The reform had two major features: the Russian governmental apparatus was completely reorganized, and huge changes were made in tax legislation to make collection easier and more profitable for the State. This combination was probably an important cause of the ensuing financial instability (the value of the fiat money was continually in flux), an instability that was exacerbated by inflationist policies and continuing political uncertainty.

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[1] *Review of Austrian Economics* 7, no. 2 (1994): 49–74.

[2] Hoppe asks, “can fiat money arise as the natural outcome of the interactions between self-interested individuals; or, is it possible to introduce it without violating either principles of justice or economic efficiency?” (p. 49).

[3] See V. Naishul, *The Supreme and Last Stage of Socialism* (London: Center For Research into Communist Economics, 1991); idem., “Liberalism, Customary Rights and Economic Reforms,” *Communist Economies and Economic Transformation* 5, no. 1 (1993); idem., “Communism: Death or Transformation?” presented at the Mont Pelerin Society General Meeting (Cannes, 1994); idem., “Perspectives on Economic Reforms in Russia,” *Champions of Freedom* 21 (Hillsdale, Mich.: Hillsdale College Press, 1994).

Book Reviews

Capitalism: A Complete and Integrated Understanding of the Nature and Value of Human Economic Life. By George Reisman. Ottawa, Ill.: Jameson Books, 1996. Pp. i, 1046. $95.00. ISBN 0–915463–73–3

George Reisman was a student of both Ludwig von Mises and Ayn Rand. Yet, Reisman's *Capitalism* discusses few typically Austrian or Objectivist themes. Amazingly, in a more than 1,000-page book, ostensibly influenced by both *Human Action* and *Atlas Shrugged*, there is no index entry for entrepreneurship. Nor will one find entries for the market process, subjective value, or evolution. Austrian business-cycle theory and welfare economics are unexpectedly under-represented. This list of lacuna is brought forward not as criticism, but to emphasize that, particularly in its most original aspects, *Capitalism* stands somewhat apart from any school or living tradition. Mises and Rand have influenced *Capitalism*, but surprisingly, Reisman's greatest influences are Adam Smith, David Ricardo, and John Stuart Mill.

The Division of Labor

Reisman begins *Capitalism* with a classical theme, the importance of the division of labor. In a wonderful section, he mixes standard Smithian themes with ideas from Mises, Hayek, and Rand to achieve important insights into a division of labor society:

> What a division-of-labor society represents is *the organization of the total sum of human brain power in a way that enables it to store and use vastly more knowledge than would otherwise be possible* In those areas, where the overwhelming majority of people live as virtually self-sufficient farmers, each family knows essentially what all the others know about production. . . . After interviewing the first such family in each area, very little additional

> information would be gained from interviewing the hundreds of millions of other such families. What this means, in essence, is that the sum total of the knowledge used in production in a non-division-of-labor society is limited to what the brain of just one or two individuals can hold such a situation is a case of wasteful duplication. It is the wasteful duplication of the mental contents of the human brain—the wasteful use of man's ability to store and use knowledge. In this respect and in this sense, a division-of-labor society is indispensable to the efficient use of the human mind in production. (p. 124, italics in original)

Continuing on in this vein, Reisman notes that specialization of knowledge in a division-of-labor society increases the total amount of knowledge which is available to society. Perhaps more importantly, a division-of-labor society lets geniuses specialize in the creation of ever more knowledge. The division of labor lets us exploit increasing returns to IQ.

Having established the vital importance of the division of labor for a prosperous society, Reisman turns to showing how the division of labor depends on capitalism. A division-of-labor society requires massive amounts of exchange, and thus requires prices and a unit of account so that economic calculation can occur. Crucially, it is "The consideration of prices which integrates and harmonizes the plans of each individual with the plans of all other individuals and produces a fully and rationally planned economic system under capitalism" (p. 137). With an understanding of the importance of prices as coordination devices, Reisman turns in Chapters 6–8 to the formation and operation of free-market prices and the disaster of price controls.

Chapters 6–8 of *Capitalism* are updated versions of Reisman's previous book, *The Government Against the Economy*. It was praised by both F.A. Hayek and Henry Hazlitt as an introduction to the principles of economics. The value of the book as an original contribution to the socialist calculation debate has, however, been under-appreciated. Reisman begins his analysis of socialism by analyzing the effects of a single price control in a free-market economy, showing how a price which is controlled below the market price creates a shortage. But Reisman goes far beyond the typical presentation of price controls found in modern microeconomics texts. He demonstrates, for example,

how price controls create chaos in the geographic distribution of goods. In a free market, more urgent demanders can outbid less urgent demanders for access to, say, the supply of oil. Thus, a severe winter storm on the East Coast causes individuals on the East Coast to bid up the price of oil in the East, giving entrepreneurs incentives to ship oil to the East from the West where it is demanded less urgently. If the price of oil is controlled, entrepreneurs no longer have an incentive to equilibrate markets. While some individuals in the East freeze for lack of oil, other individuals in the West find they have more than enough oil for even relatively minor uses. Similarly, price controls cause chaos in the functional distribution of factors of production. One would expect that during an oil shortage, the production of oil would be utmost priority. Yet when oil was controlled in the 1970s, oil rigs off the coast of California could not get enough (refined) oil to operate. In a free market, the owners of the oil rigs would have attracted oil by bidding up the price. Instead, because of the price controls, the owners of the rigs were forced to petition the authorities for an increase in oil rations. A single slipup by a bureaucrat can cause absurd misallocation of resources.

Building on his analysis of a single control, Reisman demonstrates how the negative effects of multiple controls feed into one another and multiply the chaos. As more and more controls are added, we finally reach a situation of universal price controls which, in all essentials, is equivalent to socialism. Under a system of universal price controls, shortages exist for almost all goods, and goods are allocated in an almost completely irrational manner. Reisman's procedure, extrapolation from a single price control to a system of universal price controls, makes brilliantly clear Mises's argument about the impossibility of rational calculation under socialism. It has become common to explain Mises's argument as an apodictic conclusion from *apriori*-type reasoning. This has led to confusion and endless debate on the status of the term "impossible" in Mises's argument. Rational calculation is impossible under socialism, not in the sense that it is impossible for two parallel lines to ever meet, but in the sense that it is impossible for a man to run a 30 second mile unaided. If 40,000 U.S. bureaucrats armed with the fastest computers and advised by the smartest economists could not rationally allocate a single good, oil, then it is certainly impossible that any group of bureaucrats could rationally allocate hundreds of thousands of goods across space, time, and function. After reading Reisman's

analysis in the original, I felt for the first time that I truly understood Mises's argument. Today, I use Reisman's procedure to explain the impossibility of rational calculation under socialism to my principles students.

Price controls also

> break the harmonious union of the self-interest of buyer and seller that prevails in a free market and replace it with an altruistic relationship between the two. In this relationship the customer is reduced to impotent pleading for the customary service and customary quality that the seller no longer has any economic motive to supply. Indeed, all of the seller's motives, both economic and non-economic, now work in the direction of reducing the quality of his product and the service associated with it. (p. 239)

Thus, price controls cause a reduction of quality, consumer impotence, and buyer and seller hatred. Building on this insight and others Reisman explains how universal price controls must inevitably lead to slavery and totalitarianism. To Mises's impossibility of rational calculation, Reisman adds the impossibility of benevolent government under socialism.[1]

Some Problems

One annoying problem with *Capitalism* is that almost everything Reisman says about neoclassical economics is wrong. One particularly painful example occurs at the end of chapter 5, where Reisman argues that neoclassical economics has a circular concept of demand which cannot explain prices. Neoclassical economics, he writes,

> explains each individual price on the basis of demand and supply. But the demand curve in each case *presupposes* all other prices in the economic system. . . . Yet if the formation of those other prices is to be explained on the basis of demand and supply curves, then the price of the good in question, which is supposedly first to be explained by demand and supply curves, must already be presupposed. (p. 169 italics in original)

This is the sort of error which is easily corrected by a simple mathematical analysis, but evidently causes great confusion in purely verbal reasoning. Assume that the demand for A depends on the price of B, and the demand for B depends on the price of A, as, for example, in the following equations.

$$Q^a_d = 10 - P_a - P_b/2$$

$$Q^b_d = 17 - 3P_b - P_a/6$$

An equilibrium occurs if supply equals demand in both markets. Assume that the supply of A is fixed at 5 and the supply of B is fixed at 7, then equilibrium occurs when:

$$10 - P_a - P_b/2 = 5$$

and

$$17 - 3P_b - P_a/6 = 7$$

Contra Reisman, it is a simple matter to solve these equations to find

$$P_a = 24/7 \text{ and } P_b = 22/7$$

Mathematically, prices in the two markets are determined "simultaneously." Economically, they are determined by the market process, a dynamic process of shortages, surpluses, profits, losses, and entrepreneurial actions which push prices towards their equilibrium values (Kirzner 1973). Reisman seems to suggest that the price of one good could somehow be determined independently of all other goods. But this is manifestly false; there is no alternative to "simultaneous" determination via the market process.

A related annoyance is Reisman's use of the so-called classical theory of price determination. According to Reisman, the classical conceived of demand "as an amount of expenditure of money, such as $1 billion, while supply is to be understood as an amount of a good or service offered for sale" (p. 152). To illustrate, Reisman presents the following equation:

$$P = D/S$$

Where D is understood as an expenditure of money and S a quantity of goods.

Whether classical or not, this "theory" of price determination is untenable. How can consumers decide how much to spend on a good without first knowing the price? Are we to believe that consumers choose to spend, say, $1 billion on Coca-Cola without first knowing the price of Coca-Cola? If, for some unspecified reason, the supply of Coca-Cola falls, will consumers continue to spend just as much on Coca-Cola as previously?[2] And how do suppliers decide how much to supply without first knowing the price?[3] The theory of demand and supply explains the market price, the quantity demanded, and the quantity supplied. Reisman's so-called classical theory explains nothing.[4]

Most of what Reisman says about neoclassical economics can safely be ignored without affecting the value of *Capitalism*. Reisman's use of the classical theory of price is also not a big problem, at least not to anyone who knows to ignore the theory whenever it appears. But the theory does appear sporadically throughout the book, especially in the sections on the quantity theory of money and wage formation. Reisman accepts the classical doctrine of the wage fund which is simply the above equation applied to the price of labor. (Take P as the price of labor, D as the demand for labor considered as a fixed monetary expenditure like $1 billion, and S as the fixed quantity of labor supplied.) This theory makes no more sense applied to wages than to any other price.[5] Fortunately, Reisman doesn't take the theory too seriously and manages to argue to the correct conclusion that the average wage is determined by the average productivity of labor.[6] Unfortunately, he argues against the marginal productivity theory of wages which is accepted by both neoclassicals and Austrians (see, for example, Rothbard [1962]).[7]

Reisman misrepresents the marginal-productivity theory of factor pricing and also the neoclassical theory of price, which in all essentials is the same as the Austrian theory (i.e., the irrelevance of "cost"), because he does not appreciate the difference between partial- and general-equilibrium reasoning. In both cases, Reisman's errors are errors of interpretation. Reisman's own theory of price, for example, is in essence the neoclassical and Austrian theory.

According to Reisman, the marginal-productivity theory of factor pricing implies that the price of any factor is determined by the marginal value product of that factor.

> Thus, the marginal-productivity theory implies that the price of automobile parts, for example, is determined on the basis of the portion of an automobile's utility that is lost if the part in question is not present. . . . [But] if one asks how much of a car's utility or value depends on its having a steering wheel, any one of its four wheels, or accelerator pedal, fuel pump, carburetor, and so on, the answer over and over again, is the whole value, or at least the far greater part of the value, of the automobile. . . . [Therefore] if the value of the parts is to be determined by the loss of utility of the product that follows from the absence of the part, the sum of the values of the parts must far exceed the value of the product. (p. 667)

Reisman's error is to believe that marginal-productivity theory applies to each industry and to each firm individually, when in actuality it applies to the economic system as a whole. Thus, the value of a steering wheel (or, more accurately, the plastic and leather which make up a steering wheel) is determined by the utility of the *least* valuable product or service one would have to give up if the requisite plastic and leather were absent. The least value, i.e., the marginal value, of the plastic and leather is not in its use as a steering wheel but in some other use elsewhere in the economy. Suppose an automobile manufacturer needed to purchase an additional steering wheel. To do so would have to draw plastic and leather away from other areas of the economy. Assuming competitive markets, the price the automobile manufacturer would have to pay would just equal the value of the leather and plastic in alternative uses. Leather and plastic have value in alternative uses because they are productive in alternative uses (they produce revenue). The value of the steering wheel is thus equal to its (economy-wide) marginal revenue product (also called the marginal value product).

When neoclassical economists write down and solve a general equilibrium model of the economy, they are representing the above analysis mathematically. Rothbard (1962, pp. 406–9, and passim) gives an equivalent verbal explanation. Rothbard writes, for example, that "The price of a unit of any factor will, as we have seen, be established in the market as equal to its discounted marginal value product. This will be the DMVP as

determined by the *general schedule including all the various uses to which it can be put*" (p. 407, italics added).[8]

Reisman's method of explaining factor prices is to refer to their cost of production. In fact, Reisman argues that the price of any manufactured good is determined in the "first instance" by its cost of production. For many purposes, such partial equilibrium reasoning is perfectly acceptable. It is important to remember, however, that all "costs of production" are ultimately opportunity costs (which means all costs are ultimately subjective). From a general-equilibrium standpoint, the cost of an automobile is the value of the dishwasher, lawnmower, and refrigerator one could have had if one had used the resources necessary to make an automobile in their alternative employments. In a free market (absent major externalities) the money "cost" of an automobile exactly represents the value of goods foregone by the automobile's production. It was Mises's great insight that only free-market prices could accurately represent the value of goods foregone, and that without such prices, rational economic calculation is impossible.

In principle, Reisman understands the above analysis, but because he rejects marginal productivity theory and also the notion of opportunity cost, he is unable to express these insights in a succinct manner.[9] Thus, he notes that, ultimately, all prices are determined by demand and supply, but this leaves open what determines supply. Only once does Reisman tell us that supply curves are determined in general equilibrium by competing demands (and he seems to restrict this case to upward sloping supply curves, see p. 165). Instead of using the concept of opportunity cost, Reisman is forced to bring back the classical device of separating goods into reproducible and non-reproducible categories (manufactured goods being an example of the former and Manet paintings an example of the latter). Thus, we have not one but several theories of price depending on the category of good. Costs, in a similar manner, are said to have a "direct" influence on the price of some goods, but only an "indirect" influence on the price of other goods, and so forth. This expansion of price theories and artificial categorization of goods is unsatisfactory, especially when the neoclassical or Austrian theory is available. Simply put, all prices are determined by demand and opportunity cost or, equivalently, all prices are determined by preferences and production functions.[10]

At first, I found Reisman's failure to discuss the subjectivity

of cost and his closely related abandonment of opportunity cost puzzling. Other choices were also puzzling. For instance, Reisman tends to work in terms of money prices instead of relative prices, and money rates of return instead of goods rates of return.[11] Why? Is Reisman trying to banish subjective and unobservable elements like opportunity costs from economics in favor of objective and observable elements like money costs and money rates of return? If this is the explanation for the abandonment of subjective-cost theory, expectations, and opportunity cost, it is unfortunate. I am in favor of developing testable theories with observable implications, but one can't make progress in this direction by ignoring the essential fact that economics *does* deal with *human action*.[12][13] Progress comes only when we face the difficulties inherent in human action and devise, as best we can, methods for overcoming these difficulties.

Macroeconomics

Like the classicals, Reisman focuses his analysis on the long run. In his discussion of wages, for example, Reisman focuses exclusively on the average wage and on the factors accounting for the growth in wages over time. Very little time is spent discussing wages in different industries or at different times across business-cycle frequencies. To explain long-run wage growth, Reisman introduces and explains what in all essentials is the Solow (1957) model. Reisman's explanation is verbal rather than mathematical, and is well done. In Solow's (1957) model, technology enters the production function as a multiplying factor which raises the productivity of the *current* capital and labor stock, i.e., $Y = A \times F(K,L)$, where A denotes technology. Reisman's model differs from this in assuming that (a) technology is embodied in capital, and (b) that as a result, returns to capital are (can be) constant. Technology does not raise the productivity of some homogeneous lump of stuff called K. New technology is inseparable from new forms of capital. Growth is the process of substituting steel for iron, titanium for steel and so on. Reisman's discussion in this section is enlightening and well worth reading.[14] After a long period of quiescence, the theory of growth has reclaimed the center stage of the macroeconomics literature, and Reisman's analysis reads as quite modern in flavor. Other highlights in the macroeconomics section of *Capitalism* include a discussion of Say's law which is very good, if somewhat long and tedious.

Most of *Capitalism*'s macroeconomics section is given over to a lengthy discussion of Reisman's theory of long-run profit or interest, which is built upon a re-conceptualization of the national income accounts. Reisman's discussion of the national income accounts is very similar to that of Skousen (1990), who bases his theory on Rothbard (1962), Hayek (1935), and others in the Austrian tradition. For example, Reisman writes that

> the contemporary concept of GNP is not only, in actuality, a highly netted-product concept, but it goes so far as to seek to obliterate both the production and the productive consumption of the so-called intermediate products. (p. 678)

While Skousen (1990, p. 188) writes,

> the gross private investment figure in GNP is not really a gross number after all. It is actually a net measure and purposely excludes "intermediate goods" that are purchased to be used as inputs in producing other goods and services.

Rothbard (1962, p. 343) agrees, noting,

> Current "gross" figures, however, are the height of illogicality, because they are not gross at all, but only partly gross. They only include gross purchases by capitalists of durable capital goods [but] it is inadmissible to leave the consumption of nondurable capital goods out of the investment picture.

Reisman, Rothbard, and Skousen also agree that it is primarily gross savings by capitalists which maintains the capital structure. To prove this point, Reisman (p. 686) asks us to assume

> that businessmen and capitalists, who sell their goods and services, use the full amount of their sales receipts to make purchases for their own consumption. . . . In such a case, there would simply be no source of a demand either for capital goods or for labor by business firms. . . . What would happen under such conditions is that the division of labor

would revert to the most primitive level.

Rothbard's (1962, p. 341) discussion is similar. He asks us to suppose

> that the capitalists decide to break up the smooth flow of the ERE by spending all of the 100 ounces for their own consumption rather than investing the 95 ounces. It is evident that the entire market-born production structure would be destroyed. . . . [The] economy would revert to barbarism, with the employment of only the shortest and most primitive production processes.

Despite the close connection between Reisman's theory of aggregate accounting and that put forth by Rothbard and greatly elaborated and extended by Skousen (1990), there is only a footnote reference to Skousen and no references at all to Rothbard.[15] Instead, Reisman cites as his inspiration Adam Smith and John Stuart Mill. The problem is not primarily a failure to reference predecessors. The problem is that Reisman's discussion mostly recounts earlier work in the Austrian tradition without building much upon that work.[16] Indeed, in many respects, Skousen's (1990) analysis is more rewarding. Skousen, for example, provides estimates of U.S. national income using the correct concepts of gross investment, gross savings, and so forth. Skousen's review of the literature on aggregate income accounting is comprehensive and useful. He points out, for example, how tools like Leontief's input and output tables can be used to develop better measures of the national accounts. Unfortunately, few Austrians have an empirical bent, and Skousen's (1990) estimates are only cursory. Real progress will occur on these issues only when Austrians (a) actually use their theory to improve the national income accounts, and (b) show how the improved accounts help us understand growth, business cycles, and other issues in macroeconomics.

Policy

Capitalism is much closer in style to Mises's *Human Action* or *Socialism* than it is to Rothbard's *Man, Economy, and State*, which is to say that the text is punctuated with applications, historical observations, and analyses of policy, rather than being a single, sustained praxeological argument. Reisman's analyses of policy

are skillful both in terms of economics and rhetoric. As an example of rhetoric:

> The environmental movement maintains that science and technology cannot be relied upon to build a safe atomic power plant, to produce a pesticide that is safe, or even to bake a loaf of bread that is safe, if that loaf of bread contains chemical preservatives. When it comes to global warming, however, it turns out that there is one area in which the environmental movement displays the most breathtaking confidence in the reliability of science and technology, an area in which, until recently, no one—not even the staunchest supporters of science and technology—had ever thought to assert very much confidence at all. The one thing, the environmental movement holds, that science and technology can do so well that we are entitled to have unlimited confidence in them is *forecast the weather*—for the next one hundred years! (p. 88)

It might seem odd that a book on economics should devote considerable space to an attack on environmentalism, but Reisman argues quite convincingly that environmentalism is to our time what socialism was to Mises's.

Reisman's analysis of socialized medicine is also worth quoting:

> In what is perhaps the supreme irony of the system, in efforts to control costs, the government ends up actually *opposing advances in medical technology*. It comes to regard such procedures as the implantation of artificial hearts as a major threat to its budget. . . In addition, in further cost-containment procedures, the government begins to restrict or prohibit whole categories of procedures, from cosmetic surgery to bypass operations. . . . Thus, people who under private medicine could have obtained such procedures by spending their own money for them are denied the ability to obtain them. They are denied this ability because taxes to pay for the medical care of others, and simply to squander, drain them of the necessary financial resources. . . . Thus it should not be

> surprising that under socialized medicine in Great Britain, for example, bypass operations are made difficult to obtain for people over fifty-five years of age, and an elderly person who breaks a hip is likely to die before being able to obtain corrective surgery. (p. 149)

Other aspects of *Capitalism* I will only mention briefly include a defense of the gold standard, a critique of anti-trust laws, and an attack on Keynesian economics. The latter is well done although somewhat dated. Regretfully, *Capitalism* has nothing to say about issues in information economics like moral hazard, adverse selection, signaling, and so forth. In the right hands these ideas constitute a strong critique of the market (although not necessarily a defense of the state). Joseph Stiglitz's (1994) book *Whither Socialism?* is today the cutting edge of market critiques, at least among economists. A capitalist manifesto for the twenty-first century will have to take up new Keynesian concerns.

Conclusion

In conclusion, *Capitalism* 's treatment of the division of labor, price controls, economic calculation, and Say's law are likely to remain definitive for a long time. The sheer size of *Capitalism* makes it a superb reference work; there is hardly a critique of free-market economics which is not here analyzed and demolished. I would enjoy using much of *Capitalism* as a text in an advanced undergraduate economics class. Reisman's resurrection of the classical approach to macroeconomics, however, is fundamentally misguided. Austrian economics provides valuable insights into entrepreneurship, the market process, and welfare economics (insights which, for the most part, Reisman does not avail himself of). Austrian capital theory and national income accounting could perhaps form the foundation of a revised Austrian and neoclassical macroeconomics. But on other issues, like growth theory, financial economics, and pricing in general equilibrium, Austrian economics has no well-developed body of thought. On these issues, Austrians are well advised to adopt the neoclassical approach rather than to attempt a resurrection of classical thinking.

Alexander Tabarrok

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[1] Reisman's analysis of socialism belongs to the field of what most economists would call political economy or public choice. Thus, it is rather odd that Reisman insists that economics is the science of wealth, and that Mises is confused when he calls economics a branch of a larger field which studies human action (see, p. 42 and chap. 2, n. 12). The post-1950 rise and contributions of public choice, social choice, law and economics, and Chicago-school sociology make it eminently clear that Mises's understanding of economic method is correct.

[2] This type of behavior can be rational, but only for a limited class of utility functions.

[3] One could argue that S is fixed in the very-short run but then the classical theory is, at best, a theory of very-short-run price determination—not a particularly useful theory.

[4] Of course, in equilibrium, Reisman's equation is correct. As a matter of logic when $Q_d = Q_s$ then $p = p \times Q_d/Q_s$, but the equation tells us nothing about price determination.

[5] To Reisman's credit he quotes at length Mill's famous rejection of the wages-fund doctrine (pp. 664–65). After reading Reisman and re-reading Mill, I continue to side with Mill.

[6] Reisman is incorrect to think that this conclusion is at odds with the marginal productivity theory. Let total output be a function of capital and labor, written $Y = f(K,L)$. By Euler's theorem (see any math economics text) and constant returns to scale, $Y = F_K K + F_L L$, where F_K, F_L are the marginal productivity of capital and labor respectively. Marginal productivity theory says $w = F_L$ and $r = F_K$ where w is the wage rate and r the rental rate on capital (and the output price has been normalized to 1). Substituting we have $Y = rK + wL$ and rearranging

$$w = Y/L - r\,K/L$$

which says that average wages are equal to the productivity of labor minus the rental rate times the capital-to-labor ratio. Rearranging, we have

$$w = 1/L\,(Y - rK) = Dc/L\,,$$

where the last equality says that the average wage equals the demand for consumer goods (taken *à la* Reisman as an expenditure of money) divided by the supply of labor. The last equality follows by assuming all wage income is consumed, and is similar to Reisman's equation 6 (p. 621). The difference between Reisman's analysis and the one given here is that the above analysis is (a) founded on defensible economic reasoning and (b) far richer in economic content. In addition to being a theory of production, it can easily be extended into a theory of growth and growth accounting, for example.

[7] Oddly, Reisman accepts that factor prices are determined by marginal products (p. 209), but then rejects the marginal productivity theory (p. 666).

[8] It is not hard to see how Reisman was misled. Most microeconomics texts discuss only how a firm chooses the quantity of each factor to employ on the basis of a given price. In this partial equilibrium presentation, it is more correct to think

of the price of a factor "determining" the marginal product than the other way around. Most texts leave general-equilibrium type reasoning for advanced courses, a decision which can lead to confusion. Rothbard (1962) presents both the partial- and general-equilibrium perspectives.

[9] The phrase "cost of production determines price in the *first instance*" is misleading. Whether money costs determine prices or prices determine money costs is not a question of time but of perspective. For some questions, such as analyzing the effects of a rent control or an increase in demand, the partial-equilibrium perspective is convenient and appropriate. For other questions, particularly deep questions about the nature of prices and costs, only a general-equilibrium perspective will suffice.

[10] Opportunity cost is a function of technologies or production functions. The formulation in the text assumes competitive markets but institutions can also affect prices.

[11] At several points, for example, Reisman analyzes an issue by assuming money is held constant, and then re-analyzes the same issue by assuming the money supply is increased or decreased. These re-analyses can be tedious. Reisman's theory of profit and interest is also a monetary theory; he wishes to explain the difference between total monetary business receipts and total monetary business expenditures. Reisman rejects the time-preference theory of interest primarily because it explains a rate of return in terms of goods. I suspect, but have not shown, that most of Reisman's criticisms of the time preference theory are a result of not fully tracing through the implications of a given rate of return in the goods market to other markets in the economy.

[12] Recall that Reisman rejects Mises's description of economics as the science of human action, preferring a definition in terms of the production and distribution of wealth (see note 1 above).

[13] It is worth emphasizing that there is no contradiction between objective value theory in ethics and subjective value in economics. The two theories deal with entirely different questions and have no bearing whatsoever on each other. See, for example, Rothbard (1962, pp. 63–64), and Tabarrok (1990).

[14] As usual, with the exception of Samuelson and Nordhaus's principles textbook, which Reisman cites incessantly and negatively, he appears unaware of neoclassical economics. Solow (1960) published a model with technology embodied in capital a scant three years after his classic paper on growth. Hulten (1992) cites the modern literature and assesses the

evidence for and against the embodiment hypothesis. Modern theories of growth are surveyed in Barro and Salai-i-Martin (1995).

[15] Rothbard (1962) is referenced elsewhere in *Capitalism*.

[16] To be sure, to the extent that *Capitalism* is understood as a textbook, covering old ground is fully appropriate.

Austrian Economics in America: The Migration of a Tradition. By Karen I. Vaughn. *Historical Perspectives on Modern Economics*. New York and Melbourne: Cambridge University Press, 1994. Pp. xiv, 198. $49.95. ISBN 0–521–44552–3.

Some books are distinguished by inaccuracies, stilted or idiosyncratic interpretations or by a simple lack of scholarship. These are simply forgettable with "the only bad review being only an obituary." Others are this and plenty more—they do actual and discernible damage to the subject they seek to treat. Such is the case with this book that seeks to "clear away the underbrush so that the hoped-for revolution [an Austrian revolution] can have a more hospitable soil in which to take root." Not only does it not clear "the underbrush" (a silly and inapt metaphor), Vaughn's book shows little appreciation for the development of Austrian economics in the United States or anywhere else, or for its present or future status. Austrian economics fortunately is made of sterner stuff and will survive this treatment. Vaughn does serious damage to fair interpretation nonetheless. In my view (and I am more a sympathizer than a card-carrying Austrian), her stance, if it is really taken seriously, builds a catafalque for this critically important area of economic thought.

The title of this book, if not the content, suggests three possibly important issues that Vaughn might have considered. First, what is the nature of the tradition, history, and economic theory of the Austrian school? Second, does Austrian economics stand as a separate and coherent theory today? Finally, has an expanded neoclassical analysis paralleled or "absorbed" Austrian notions of ignorance, time, the entrepreneur, and knowledge requirements? This book fails to contribute in any meaningful way to any of these matters.

The historiography of Austrian thought and the "tradition" of which Professor Vaughn speaks is reduced to a few well-known figures and ideas (chapters 2–5) flavored only with Vaughn's stilted interpretations. I find both the older and the more modern writers of the Austrian school to be critically misrepresented in this account.

Consider the older tradition, whose font was the triumvirate

of Carl Menger, Friedrich von Wieser, and Eugen von Böhm-Bawerk. Vaughn devotes two chapters to Menger and "Mengerian themes" (found in Hayek in particular) in a summary of well-known literature. Her treatment boils down to an assertion that Menger's themes of knowledge, ignorance, time, and process were the *singular* essences of Austrian economics. Wieser and Böhm-Bawerk are depicted as not having "a Mengerian vision" (p. 7). This is utter nonsense. Vaughn believes that Menger's "themes" were resurrected in the socialist calculation debates between Ludwig von Mises and the "neoclassicals." She should consider Wieser's *Natural Value*, his *Social Economics*, and the writings of Böhm-Bawerk more closely.

In *Natural Value* (1883), Wieser outlines and then destroys the theoretical case for socialism by directly confronting the argument that profits and interests are necessary payments but not necessary receipts (the socialist argument). I further suggest that her dismissal of Wieser (see pp. 33–35) as a closet neoclassical is preposterous when one reads his *Social Economics* (completed in 1914 but not published until after World War I). In it Wieser made giant strides toward the development of a number of contemporary Austrian themes, including (a) the emergence of institutions as the result of spontaneous order; (b) the depiction of competition as a rivalrous process opposed to (simply) a static model; and (c) the key role of the entrepreneur in the economic process. The integration of economic theory into a theory of institutional change, a clear extension of Menger's work on the development of money, is perhaps the most important of these genuine achievements, especially given the concerns of some contemporary Austrian and neo-institutional economists.[1]

The dismissal of Wieser and Böhm-Bawerk as Austrians of the older school is, unfortunately, only one example of Vaughn's serious lapse of accuracy and incompleteness.[2] Her spotty and sparse attention to the Austrian tradition in America is an even more glaring and disastrous omission. While Mises, who was Böhm-Bawerk's (not Menger's) student, and Hayek get some summary treatment, it is as if economists such as Joseph Schumpeter, Gottfried Haberler, Oskar Morgenstern, Fritz Machlup, and Paul Rosenstein-Rodan did not even exist, let alone constitute an inextricable part of the "tradition." A footnote or two (see p. 36 n. 22) and a blanket dismissal of these game players as "neoclassical sympathizers" just doesn't get to the core of these critical contributions to the Austrian way of thinking.

1 know, for example, that Oskar Morgenstern considered himself, first, last, and always, a direct descendant of and a worker in the fields of the Austrian tradition. In 1969, when he visited Texas A&M for several long stints, Morgenstern lectured to my "thought" classes on Austrian economics and its development in America. My yellowing notes reveal that Morgenstern had a clear grounding in Mengerian principles and that grounding was a *vital* part of Morgenstern's research at the time (on stock market prices, I believe). He had my class reading his *Accuracy of Economic Observations*, written in 1950 (second edition 1963). While purporting to recount "the Austrian tradition," Vaughn virtually ignores the work which most clearly explains why the all-too-frequent misuse of econometrics should be taken with a grain of salt—a very modern Austrian predilection.

Vaughn's non-treatment of serious scholars whose works flow into both Austrian and non-Austrian mainstreams reflects a more basic problem in her entire treatment. Her treatment is itself based on an idiosyncratic interpretation of what Austrian economics or neoclassical economics (for that matter) is.[3] The limited perspective is furthered by her very interpretation of Austrian economics as essentially (only?) the economics of time and ignorance. Great attention is lavished (pp. 92–178) on this *idée fixe* which occupies almost half of the book. At the risk of trite paraphrase, this view may be summarized: Since we cannot know what we cannot know (the future), and since econometrics is of no help, predictive models are useless or are "severely limited." This, at least to this reviewer's mind, is the core problem with the book, and the reason why it damages the topic it seeks to venerate.

Ludwig Lachmann and his coven, including the hermeneuticians, have driven a wing of the Austrian movement to an anti-scientific theological view of "what Austrian economics is." Radical views of knowledge and knowledge requirements force a retreat to deconstructive anti-science with which Vaughn flirts. (On this point I am in full agreement with the late Professor Murray Rothbard.) Pursuit of this Holy Grail will leave Austrian economics and any other branch of thought that embraces it exactly nowhere.[4] Hermeneutics is, root and branch, a surrealist stupidity reminiscent of the Roman Church's attacks on science or the fundamentalist attack on biology. There is no "middle-of-the-road" in this war that does not, of necessity, spit on science and scientific principles. Perhaps the romance

with hermeneutics or its variations might end in the creation of a magic decoder ring.[5]

Large chunks of this book are devoted to sterile and unnecessary attempts on the part of some Austrians, including the author, to "find themselves" and define a new paradigm. It would be facile to dismiss this book as a patchy-idiosyncratic summary of some Austrian ideas, because the errors and lapses go much deeper than that. Even though there is little new in the book, the interpretation she provides is a call to *nihilism*. From that undiscovered country, as Hamlet noted in another context, no traveler returns. When the direction of economic activity cannot be predicted or predicated upon some solid behavioral responses, markets do not matter, and their defense is irrelevant much as they are at the hands of the rational mechanics that the Austrians so fondly (and correctly) assail.

Fortunately, Austrian endeavors and prospects are more solid and promising than Vaughn proposes. Rather than simply being the "economics of time and ignorance," Austrian concerns bridge and intimately connect with a number of areas with a complexity that belies this book's simplistic treatment. Indeed, other reviews of this book (by Austrians) have noted some of these areas. Fortunately, it represents a small, angst-ridden wing of the Austrian movement—those with a penchant for internecine methodological warfare—and not its more vital quarters. A number of young Austrians really *do* economics and interesting economics at that. Austrian-flavored analyses of monetary theory, macroeconomic and growth theory, antitrust, and law and economics are being promulgated by writers such as George Selgin, Larry White and Don Boudreaux, to mention only a few. And Israel Kirzner continues to enlarge our knowledge and analysis of the role of the entrepreneur. Perhaps someday soon, an Austrian will provide a work that reveals the real complexity of the area without the Heraclitan highjinks and theological overtones that pervade this treatment.

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[1] Böhm-Bawerk's extension of Menger's subjective exchange theory and his Mengerian discussion of the process of exchange is yet another obvious lapse in Vaughn's account.

[2] Her interpretation of the *methodenstreit* ignores the impact of the iron-fisted system of university administration in Germany, although Vaughn provides the shallow statement that Schmoller "managed to keep Mengerians out of academic positions in Germany" (p. 36) without further explanation. Where, in addition, is an analysis of early Austrian influences in England at the hands of William Smart (see his *Theory of Value*, 1891) and others in Vaughn's account of the "migration of a tradition"?

[3] On page 9 of her book, for example, Vaughn virtually equates neoclassical economics with constrained maximization. She also has trouble with possible differences between "mainstream economics" and "neoclassical economics." But brushing aside the differences, she alleges that these constitute a "program that explains all human action as variations on constrained maximization where preferences are considered to be given, well-ordered, and stable, and where there is widespread knowledge of constraints." An opposing view is contained in recent works by Douglas North, Gary Becker, and William Baumol.

[4] Vaughn does not note that these movements are taking place elsewhere across the spectrum of contemporary economics. A contemporary "Veblenian" approach is taken, for example, in recent works by Malcolm Rutherford and Lars Magnusson in which radical knowledge requirements demand a serious modification or negation of predictive economic theory. It is equally non-scientific in these manifestations.

[5] Her proclivities for moral theology are revealed when she opines that a role of Austrian economics (and Austrian economists) might be to provide a "philosophical conscience of the economics profession." Continuing, she notes that "this may not be a bad thing: Lord knows, economics needs some kind of conscience, but it is also true that most people are not particularly fond of having a conscience, despite the fact that they may be better off with one than without" (p. 167). Does Vaughn pretend to know what conscience is or what matters should be matters of conscience? Perhaps economists are not particularly fond of having half-baked theology served up to them either.